

**JSPM's Bhivarabai Sawant Institute of Technology & Research, Wagholi,  
Pune (412207)**

## **CRITERION 2 - TEACHING-LEARNING AND EVALUATION**

### **2.6**

#### **Student Performance and Learning Outcomes**

##### **2.6.2**

**Attainment of POs and COs are evaluated**



JAYAWANT SHIKSHAN PRASARAK MANDAL's  
**Bhivarabai Sawant Institute of Technology & Research**

(Approved by AICTE New Delhi, DTE Mumbai & Affiliated to Savitribai Phule Pune University)

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EN 6311 / CEGP-013100



**Prof. Dr. T. J. Sawant**  
B.E. (Elec.) PGDM, Ph.D  
Founder Secretary

**Dr. T.K. Nagara**  
ME. (Civil Engg), Ph.D (Civil Engg)  
LMISTE, LMIGS, LMIRC  
LMISRMTT, LMIE  
**Principal**

Institute Accredited by National Assessment and Accreditation Council (NAAC), Bengaluru  
National Board of Accreditation (NBA), New Delhi. Accredited Programs:  
Information Technology, Electronics and Telecommunication Engineering, Electrical Engineering

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**Vision:** "To Satisfy the aspirations of youth force, who want to lead the nation towards prosperity through techno-economic development"  
**Mission:** "To provide, nurture and maintain an environment of high academic excellence, research and entrepreneurship For all aspiring Students, which will prepare them to face global challenges maintaining high ethical and moral Standards"



**JSPM's Bhivarabai Sawant Institute of Technology & Research, Wagholi,  
Pune (412207)**

**Academic Year 2018-19**



**JSPM's**  
**Bhivarabai Sawant Institute of Technology and**  
**Research,**  
**Wagholi, Pune-412207**  
**First Year Engineering Department**



**Academic Year 2018-19**  
**Subject-Engg Chemistry (IT)**

### CO-PO Assignment Matrix

<b>SUBJECT: ENGINEERING CHEMISTRY/C103</b>															
<b>CLASS: FE(IT)</b>															
<b>AY/SEM: 2018-19/SEM-I &amp;II</b>															
<b>SUBJECT TEACHER: PROF.P.S.SHARMA</b>															
<b>Direct Assessment</b>															
<b>COs</b>	<b>Internal Assessment</b>									<b>External Assessment</b>					<b>Total</b>
	<b>UNIT TEST</b>		<b>Assignment</b>						<b>Prelim</b>	<b>Mock Oral</b>	<b>UNIVERSITY THEORY (Endsem)</b>	<b>UNIVERSITY PR/OR</b>	<b>UNIVERSITY TW</b>		
	<b>I</b>	<b>II</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>							
<b>CO1</b>	12		10						6	7	100	0	25	160	
<b>CO2</b>	13			10					7	5				160	
<b>CO3</b>		12			10				6	7				160	
<b>CO4</b>		13				10			6	6				160	
<b>CO5</b>							10		12	13				160	
<b>CO6</b>								10	13	12				160	
<b>Total</b>	25	25	10	10	10	10	10	10	50	50	100	0	25		



## REORD OF UNIT TEST MARKS

SUBJECT: ENGINEERING CHEMISTRY/C103			UNIT TEST MARKS			
CLASS: FE(IT)						
AY/SEM: 2018-19/SEM-I & II			UNIT TEST-I		UNIT TEST-II	
SUBJECT TEACHER: PROF.P.S.SHARMA			CO1	CO2	CO3	CO4
S. No.	Roll No	Name of Student	12	13	12	13
1	1307	DANGE PRITAM DILIP	9	4	7	6
2	1313	GOUR KASHISH NAJEED	11	6	8	6
3	1314	JADHAV PAYAL BALASAHEB	9	8	10	8
4	1319	KARDILE SHRITEJ SANDEEP	9	7	8	9
5	1324	LAHASE ASHUTOSH BHASKAR	3	6	5	9
6	1329	MHALSANE MAYUR MANOHAR	9	9	9	10
7	1331	NAIK SHWETA HARISHCHANDRA	9	8	9	9
8	1347	THORAT ANIKET	12	9	12	9
9	1348	TORKADI YASH DILIPRAO	10	6	2	3
10	1403	BANDAL PUNIT PANDURANG	9	8	9	9
11	1407	BANKAR AKSHAY VISHWANATH	7	9	8	9
12	1409	CHVAN TUTUJA NIVAS	9	9	9	9
13	1412	DEORE TANMAY MANOJ	9	9	10	8
14	1415	DONGARE SHUBHAM VIJAYKUMAR	8	6	5	9
15	1416	FARKANDE RAMESHWAR ANGAD	5	1	2	8
16	1417	FULPAGAR MANSI RAVI	0	5	2	9
17	1426	KARPE ABHISHEK BHAGHYAWANT	6	7	5	10
18	1428	KHAN TAUQEER NASIR	6	9	9	9
19	1430	LOKHANDE RINAL SANJAY	9	11	10	9
20	1432	MANJARE SHUBHAM DATTATRAY	9	8	9	8
21	1435	PAWAR SHRUTI SIDDHANANTH	12	9	12	9
22	1438	PURI DATTATRAY SURESH	7	3	4	5
23	1439	RANNAWARE NILAM KISHOR	7	6	7	6
24	1440	SAWANT KIMAYA DILIP	11	9	8	10
25	1441	SHAHA CHIRAG DINESH	4	12	9	9
26	1446	SURVASE AARATI SHANKAR	9	11	8	9
27	1454	YETEKAR VAISHNAVI SURESH	12	9	6	9
28	1107	BHALSINGH RUSHIKESH RAJENDRA	7	6	7	8
29	1117	DHAMALE SIDDHESH	8	4	4	9
30	1130	MANE TEJAS AVINASH	7	8	9	7
31	1142	SALKE TEJAL BALU	9	9	8	6
32	1146	SHAIKH TAUSIF ILMODDIN	10	9	9	10
33	1155	SHINDE MAHESHVARI DIGHAMBAR	9	8	9	7
34	1159	SHRAYESH TELEKAR	9	8	6	5
35	1202	AHIRE AVINASH BHAVSAHEB	7	6	7	6
36	1205	CHAMWAD VISHAL VIDHYABHUSHAN	11	8	8	6
37	1217	GUND RANJIT MARUTI	5	11	9	7
38	1219	HIRAVE NIKITA LAXMAN	10	9	10	8
39	1222	JAGTAP SATYADEEP SHAHAJI	6	9	1	2
40	1235	NARKHEDE SWARUPA NARENDRA	11	8	9	8

41	1236	PALUKURU PRAVINKUMAR NARASIMHULU	12	9	10	8
42	1238	PATIL JANHAVI ABASAHEB	9	9	7	8
43	1243	SATPUTE MEGHA KAILAS	11	8	9	8
44	1246	SHINDE AARTI ANIL	8	9	6	8
45	1250	TAKALKAR MANTHAN KAILAS	12	8	11	9
46	1251	THAKUR PRATAP RISAL SINGH	10	8	9	9
47	1252	THORAT ASHWINI EKNATH	11	8	11	9
48	1256	GIRAMKAR POOJA APPASAHEB	7	9	9	9
<b>AVERAGE MARKS</b>			<b>8.52</b>	<b>7.81</b>	<b>7.74</b>	<b>7.89</b>
<b>NO. OF STUDENTS SCORED MORE THAN 60% MARKS</b>			<b>40</b>	<b>34</b>	<b>35</b>	<b>34</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>48</b>			
<b>% ATTAINMENT LEVEL</b>			<b>83.33</b>	<b>70.83</b>	<b>72.92</b>	<b>70.83</b>
<b>CO ATTAINMENT</b>			<b>3.00</b>	<b>2.00</b>	<b>2.00</b>	<b>2.00</b>

REORD OF ASSIGNMENT MARKS								
SUBJECT: ENGINEERING CHEMISTRY/C103			ASSIGNMENT MARKS					
CLASS: FE(IT)								
AY/SEM: 2018-19/SEM-I &II			A1	A2	A3	A4	A5	A6
SUBJECT TEACHER: PROF.P.S.SHARMA			CO1	CO2	CO3	CO4	CO5	CO6
S. No.	Roll No	Name of Student	10	10	10	10	10	10
1	1307	DANGE PRITAM DILIP	7	7	6	7	7	7
2	1313	GOUR KASHISH NAJEED	7	6	7	7	7	6
3	1314	JADHAV PAYAL BALASAHEB	8	7	7	7	7	7
4	1319	KARDILE SHRITEJ SANDEEP	8	7	8	7	8	4
5	1324	LAHASE ASHUTOSH BHASKAR	8	7	8	7	7	7
6	1329	MHALSANE MAYUR MANOHAR	7	5	7	5	7	8
7	1331	NAIK SHWETA HARISHCHANDRA	8	4	8	5	7	8
8	1347	THORAT ANIKET	8	7	8	7	7	7
9	1348	TORKADI YASH DILIPRAO	5	2	5	6	0	0
10	1403	BANDAL PUNIT PANDURANG	6	7	7	7	7	7
11	1407	BANKAR AKSHAY VISHWANATH	8	7	6	5	7	5
12	1409	CHVAN TUTUJA NIVAS	7	6	7	4	7	4
13	1412	DEORE TANMAY MANOJ	7	6	7	7	7	6
14	1415	DONGARE SHUBHAM VIJAYKUMAR	7	6	7	7	7	6
15	1416	FARKANDE RAMESHWAR ANGAD	8	5	8	7	8	7
16	1417	FULPAGAR MANSI RAVI	7	5	8	7	8	7
17	1426	KARPE ABHISHEK BHAGHYAWANT	8	7	6	7	7	7
18	1428	KHAN TAUQEER NASIR	0	0	0	0	0	0
19	1430	LOKHANDE RINAL SANJAY	8	7	6	7	7	7
20	1432	MANJARE SHUBHAM DATTATRAY	7	6	7	7	7	6
21	1435	PAWAR SHRUTI SIDDHANANTH	7	7	8	7	7	7
22	1438	PURI DATTATRAY SURESH	6	7	6	7	7	7
23	1439	RANNAWARE NILAM KISHOR	6	7	7	7	7	7
24	1440	SAWANT KIMAYA DILIP	7	6	7	7	7	6
25	1441	SHAHA CHIRAG DINESH	8	7	7	7	7	7
26	1446	SURVASE AARATI SHANKAR	8	7	8	7	7	7
27	1454	YETEKAR VAISHNAVI SURESH	8	7	8	7	8	7
28	1107	BHALSINGH RUSHIKESH RAJENDRA	7	6	7	7	7	6
29	1117	DHAMALE SIDDHESH	8	7	6	5	7	5
30	1130	MANE TEJAS AVINASH	8	7	8	7	8	7
31	1142	SALKE TEJAL BALU	8	9	8	6	7	8
32	1146	SHAIKH TAUSIF ILMODDIN	7	6	7	7	7	6
33	1155	SHINDE MAHESHVARI DIGHAMBAR	8	7	6	7	7	7
34	1159	SHRAYESH TELEKAR	8	7	8	7	7	7
35	1202	AHIRE AVINASH BHAVSAHEB	8	7	6	7	7	7
36	1205	CHAMWAD VISHAL VIDHYABHUSHAN	8	7	8	7	8	7
37	1217	GUND RANJIT MARUTI	8	7	7	8	7	7
38	1219	HIRAVE NIKITA LAXMAN	8	7	8	4	7	5
39	1222	JAGTAP SATYADEEP SHAHAJI	8	7	6	8	7	5
40	1235	NARKHEDE SWARUPA NARENDRA	8	4	6	6	7	8

41	1236	PALUKURU PRAVINKUMAR NARASIMHULU	8	4	8	5	7	8
42	1238	PATIL JANHAVI ABASAHEB	8	7	8	4	8	8
43	1243	SATPUTE MEGHA KAILAS	8	7	8	7	8	7
44	1246	SHINDE AARTI ANIL	7	6	7	7	7	6
45	1250	TAKALKAR MANTHAN KAILAS	7	7	8	7	8	7
46	1251	THAKUR PRATAP RISAL SINGH	6	7	6	7	7	7
47	1252	THORAT ASHWINI EKNATH	6	7	7	7	7	7
48	1256	GIRAMKAR POOJA APPASAHEB	8	7	6	8	7	5
<b>AVERAGE</b>			<b>7.27</b>	<b>6.29</b>	<b>6.94</b>	<b>6.46</b>	<b>6.90</b>	<b>6.33</b>
<b>NO. OF STUDENTS SCORED MORE THAN 60% MARKS</b>			<b>46</b>	<b>40</b>	<b>46</b>	<b>39</b>	<b>46</b>	<b>39</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>48</b>					
<b>% ATTAINMENT LEVEL</b>			<b>95.83</b>	<b>83.33</b>	<b>95.83</b>	<b>81.25</b>	<b>95.83</b>	<b>81.25</b>
<b>CO ATTAINMENT</b>			<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>

<b>MOCK ORAL TEST</b>			
<b>SUBJECT: ENGINEERING CHEMISTRY/C103</b>			<b>MOT</b>
<b>CLASS: FE(IT)</b>			
<b>AY/SEM: 2018-19/SEM-I &amp;II</b>			<b>MARKS</b>
<b>SUBJECT TEACHER: PROF.P.S.SHARMA</b>			<b>CO1-CO6</b>
<b>S. No.</b>	<b>Roll No</b>	<b>Name of Student</b>	<b>50</b>
1	1307	DANGE PRITAM DILIP	45
2	1313	GOUR KASHISH NAJEED	36
3	1314	JADHAV PAYAL BALASAHEB	40
4	1319	KARDILE SHRITEJ SANDEEP	42
5	1324	LAHASE ASHUTOSH BHASKAR	39
6	1329	MHALSANE MAYUR MANOHAR	42
7	1331	NAIK SHWETA HARISHCHANDRA	45
8	1347	THORAT ANIKET	41
9	1348	TORKADI YASH DILIPRAO	
10	1403	BANDAL PUNIT PANDURANG	40
11	1407	BANKAR AKSHAY VISHWANATH	45
12	1409	CHVAN TUTUJA NIVAS	42
13	1412	DEORE TANMAY MANOJ	42
14	1415	DONGARE SHUBHAM VIJAYKUMAR	44
15	1416	FARKANDE RAMESHWAR ANGAD	42
16	1417	FULPAGAR MANSI RAVI	36
17	1426	KARPE ABHISHEK BHAGHYAWANT	48
18	1428	KHAN TAUQEER NASIR	45
19	1430	LOKHANDE RINAL SANJAY	40
20	1432	MANJARE SHUBHAM DATTATRAY	46
21	1435	PAWAR SHRUTI SIDDHANANTH	45
22	1438	PURI DATTATRAY SURESH	39
23	1439	RANNAWARE NILAM KISHOR	40
24	1440	SAWANT KIMAYA DILIP	37
25	1441	SHAHA CHIRAG DINESH	39
26	1446	SURVASE AARATI SHANKAR	40
27	1454	YETEKAR VAISHNAVI SURESH	39
28	1107	BHALSINGH RUSHIKESH RAJENDRA	38
29	1117	DHAMALE SIDDHESH	30
30	1130	MANE TEJAS AVINASH	42
31	1142	SALKE TEJAL BALU	38
32	1146	SHAIKH TAUSIF ILMODDIN	46
33	1155	SHINDE MAHESHVARI DIGHAMBAR	39
34	1159	SHRAYESH TELEKAR	40
35	1202	AHIRE AVINASH BHAVSAHEB	42
36	1205	CHAMWAD VISHAL VIDHYABHUSHAN	40
37	1217	GUND RANJIT MARUTI	40
38	1219	HIRAVE NIKITA LAXMAN	42
39	1222	JAGTAP SATYADEEP SHAHAJI	30
40	1235	NARKHEDE SWARUPA NARENDRA	37

41	1236	PALUKURU PRAVINKUMAR NARASIMHULU	40
42	1238	PATIL JANHAVI ABASAHEB	40
43	1243	SATPUTE MEGHA KAILAS	40
44	1246	SHINDE AARTI ANIL	46
45	1250	TAKALKAR MANTHAN KAILAS	42
46	1251	THAKUR PRATAP RISAL SINGH	39
47	1252	THORAT ASHWINI EKNATH	38
48	1256	GIRAMKAR POOJA APPASAHEB	40
<b>AVERAGE</b>			<b>40.60</b>
<b>NO. OF STUDENTS SCORED MORE THAN 60% MARKS</b>			<b>47</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>36</b>
<b>% ATTAINMENT LEVEL</b>			<b>130.56</b>
<b>CO ATTAINMENT</b>			<b>3.00</b>

<b>PRELIM EXAM RECORD</b>			
<b>SUBJECT: ENGINEERING CHEMISTRY/C103</b>			<b>PRELIMS</b>
<b>CLASS: FE(IT)</b>			
<b>AY/SEM: 2018-19/SEM-I &amp;II</b>			<b>MARKS</b>
<b>SUBJECT TEACHER: PROF.P.S.SHARMA</b>			<b>CO1-CO6</b>
<b>S. No.</b>	<b>Roll No</b>	<b>Name of Student</b>	<b>50</b>
1	1307	DANGE PRITAM DILIP	14
2	1313	GOUR KASHISH NAJEED	28
3	1314	JADHAV PAYAL BALASAHEB	16
4	1319	KARDILE SHRITEJ SANDEEP	36
5	1324	LAHASE ASHUTOSH BHASKAR	20
6	1329	MHALSANE MAYUR MANOHAR	26
7	1331	NAIK SHWETA HARISHCHANDRA	24
8	1347	THORAT ANIKET	42
9	1348	TORKADI YASH DILIPRAO	0
10	1403	BANDAL PUNIT PANDURANG	26
11	1407	BANKAR AKSHAY VISHWANATH	28
12	1409	CHVAN TUTUJA NIVAS	26
13	1412	DEORE TANMAY MANOJ	28
14	1415	DONGARE SHUBHAM VIJAYKUMAR	18
15	1416	FARKANDE RAMESHWAR ANGAD	19
16	1417	FULPAGAR MANSI RAVI	25
17	1426	KARPE ABHISHEK BHAGHYAWANT	10
18	1428	KHAN TAUQEER NASIR	30
19	1430	LOKHANDE RINAL SANJAY	25
20	1432	MANJARE SHUBHAM DATTATRAY	18
21	1435	PAWAR SHRUTI SIDDHANANTH	42
22	1438	PURI DATTATRAY SURESH	32
23	1439	RANNAWARE NILAM KISHOR	26
24	1440	SAWANT KIMAYA DILIP	26
25	1441	SHAHA CHIRAG DINESH	32
26	1446	SURVASE AARATI SHANKAR	36
27	1454	YETEKAR VAISHNAVI SURESH	46
28	1107	BHALSINGH RUSHIKESH RAJENDRA	32
29	1117	DHAMALE SIDDHESH	31
30	1130	MANE TEJAS AVINASH	30
31	1142	SALKE TEJAL BALU	28
32	1146	SHAIKH TAUSIF ILMODDIN	32
33	1155	SHINDE MAHESHVARI DIGHAMBAR	30
34	1159	SHRAYESH TELEKAR	32
35	1202	AHIRE AVINASH BHAVSAHEB	31
36	1205	CHAMWAD VISHAL VIDHYABHUSHAN	30
37	1217	GUND RANJIT MARUTI	32
38	1219	HIRAVE NIKITA LAXMAN	36

39	1222	JAGTAP SATYADEEP SHAHAJI	30
40	1235	NARKHEDE SWARUPA NARENDRA	30
41	1236	PALUKURU PRAVINKUMAR NARASIMHULU	36
42	1238	PATIL JANHAVI ABASAHEB	33
43	1243	SATPUTE MEGHA KAILAS	32
44	1246	SHINDE AARTI ANIL	32
45	1250	TAKALKAR MANTHAN KAILAS	38
46	1251	THAKUR PRATAP RISAL SINGH	29
47	1252	THORAT ASHWINI EKNATH	38
48	1256	GIRAMKAR POOJA APPASAHEB	29
<b>AVERAGE</b>			<b>28.75</b>
<b>NO. OF STUDENTS SCORED MORE THAN 60% MARKS</b>			<b>26</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>36</b>
<b>% ATTAINMENT LEVEL</b>			<b>72.22</b>
<b>CO ATTAINMENT</b>			<b>2.00</b>



## RECORD OF UNIVERISTY EXAM MARKS

SUBJECT: ENGINEERING CHEMISTRY/C103		UNIVERSITY MARKS				
CLASS: FE(IT)						
AY/SEM: 2018-19/SEM-I &II		TH (Online/ Insem+Endsem)	TW	Total		
SUBJECT TEACHER: PROF.P.S.SHARMA		CO1-CO6				
S. No.	Roll No	Name of Student	100	25	125	
1	1307	DANGE PRITAM DILIP	43	21	64	
2	1313	GOUR KASHISH NAJEED	41	20	61	
3	1314	JADHAV PAYAL BALASAHEB	63	22	85	
4	1319	KARDILE SHRITEJ SANDEEP	44	21	65	
5	1324	LAHASE ASHUTOSH BHASKAR	29	21	50	
6	1329	MHALSANE MAYUR MANOHAR	60	20	80	
7	1331	NAIK SHWETA HARISHCHANDRA	44	21	65	
8	1347	THORAT ANIKET	67	19	86	
9	1348	TORKADI YASH DILIPRAO	15	12	27	
10	1403	BANDAL PUNIT PANDURANG	48	18	66	
11	1407	BANKAR AKSHAY VISHWANATH	33	20	53	
12	1409	CHVAN TUTUJA NIVAS	44	22	66	
13	1412	DEORE TANMAY MANOJ	56	23	79	
14	1415	DONGARE SHUBHAM VIJAYKUMAR	55	20	75	
15	1416	FARKANDE RAMESHWAR ANGAD	34	20	54	
16	1417	FULPAGAR MANSI RAVI	25	20	45	
17	1426	KARPE ABHISHEK BHAGHYAWANT	51	23	74	
18	1428	KHAN TAUQEER NASIR	52	21	73	
19	1430	LOKHANDE RINAL SANJAY	64	22	86	
20	1432	MANJARE SHUBHAM DATTATRAY	56	20	76	
21	1435	PAWAR SHRUTI SIDDHANANTH	45	21	66	
22	1438	PURI DATTATRAY SURESH	22	19	41	
23	1439	RANNAWARE NILAM KISHOR	39	21	60	
24	1440	SAWANT KIMAYA DILIP	63	21	84	
25	1441	SHAHA CHIRAG DINESH	47	21	68	
26	1446	SURVASE AARATI SHANKAR	69	20	89	
27	1454	YETEKAR VAISHNAVI SURESH	31	20	51	
28	1107	BHALSINGH RUSHIKESH RAJENDRA	48	18	66	
29	1117	DHAMALE SIDDHESH	46	17	63	
30	1130	MANE TEJAS AVINASH	40	20	60	
31	1142	SALKE TEJAL BALU	52	18	70	
32	1146	SHAIKH TAUSIF ILMODDIN	60	20	80	
33	1155	SHINDE MAHESHVARI DIGHAMBAR	53	18	71	
34	1159	SHRAYESH TELEKAR	53	20	73	
35	1202	AHIRE AVINASH BHAUSAHEB	46	22	68	
36	1205	CHAMWAD VISHAL VIDHYABHUSHAN	53	19	72	
37	1217	GUND RANJIT MARUTI	54	19	73	
38	1219	HIRAVE NIKITA LAXMAN	69	22	91	
39	1222	JAGTAP SATYADEEP SHAHAJI	34	15	49	

40	1235	NARKHEDE SWARUPA NARENDRA	39	15	54
41	1236	PALUKURU PRAVINKUMAR NARASIMHULU	57	12	69
42	1238	PATIL JANHAVI ABASAHEB	69	23	92
43	1243	SATPUTE MEGHA KAILAS	57	19	76
44	1246	SHINDE AARTI ANIL	65	24	89
45	1250	TAKALKAR MANTHAN KAILAS	50	18	68
46	1251	THAKUR PRATAP RISAL SINGH	66	21	87
47	1252	THORAT ASHWINI EKNATH	69	24	93
48	1256	GIRAMKAR POOJA APPASAHEB	59	20	79
<b>AVERAGE</b>			<b>49.56</b>	<b>19.85</b>	<b>69.42</b>
<b>NO. STUDENTS SCORED MORE THAN 40% MARKS</b>			<b>44</b>		
<b>TOTAL NO. OF STUDENTS</b>			<b>36</b>		
<b>% ATTAINMENT LEVEL</b>			<b>122.22</b>		
<b>CO ATTAINMENT</b>			<b>3.00</b>		

# CO Attainment

<b>SUBJECT: ENGINEERING CHEMISTRY/C103</b>							
<b>CLASS: FE(IT)</b>							
<b>AY/SEM: 2018-19/SEM-I &amp;II</b>							
<b>SUBJECT TEACHER: PROF.P.S.SHARMA</b>							
<b>Direct Assessment</b>							
COs	Internal Assessment					External Assessment	OVERALL CO ATTAINMENT = $(0.3*A+0.7*B)$
	ATTAINMENT OF UT	ATTAINMENT OF ASSGN	ATTAINMENT OF MOCK ORAL	ATTAINMENT OF PRELIMS	AVERAGE OF CO ATTAINMENT (A)	ATTAINMENT OF UNIVERSITY EXAM MARKS (B)	
CO 1	3.00	3.00	3.00	2.00	2.75	3.00	2.93
CO 2	2.00	3.00	3.00	2.00	2.50	3.00	2.85
CO 3	2.00	3.00	3.00	2.00	2.50	3.00	2.85
CO 4	2.00	3.00	3.00	2.00	2.50	3.00	2.85
CO 5	-	3.00	3.00	2.00	2.67	3.00	2.90
CO 6	-	3.00	3.00	2.00	2.67	3.00	2.90
						Average	2.88

# CO-PO Attainment and Matrix

<b>SUBJECT: ENGINEERING CHEMISTRY/C103</b>												
<b>CLASS: FE(IT)</b>												
<b>AY/SEM: 2018-19/SEM-I &amp;II</b>												
<b>SUBJECT TEACHER: PROF.P.S.SHARMA</b>												
CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
<b>C201.1</b>	3	2	1	1		1	1	-	-	-	-	1
<b>C201.2</b>	2	2	1	-	-	-	-	-	-	-	-	1
<b>C201.3</b>	2	2	2	-	-	-	1	-	1	-	-	2
<b>C201.4</b>	3	2	1	-	-	-	1	-	1	-	-	1
<b>C201.5</b>	2	-	2	1	1	-	1	-	-	-	-	1
<b>C201.6</b>	3	2	1	-	-	1	-	-	-	-	-	2
<b>Average</b>	2.50	2.00	1.33	1.00	1.00	1.00	1.00	-	1.00	-	-	1.33
POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
<b>WEIGHTED AVERAGE</b>	2.50	2.00	1.33	1.00	1.00	1.00	1.00	-	1.00	-	-	1.33
<b>ATTAINMENT LEVEL</b>	<b>2.40</b>	<b>1.92</b>	<b>1.28</b>	<b>0.96</b>	<b>0.96</b>	<b>0.96</b>	<b>0.96</b>	-	<b>0.96</b>	-	-	<b>1.28</b>



**JAYAWANT SHIKSHAN PRASARAK MANDAL'S**  
**Bhivarabai Sawant Institute of Technology & Research**

(Approved by AICTE New Delhi, DTE Mumbai & Affiliated to Savitribai Phule Pune University)

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 B.E. (Elec.) PGDM, Ph.D  
 Founder Secretary

**Dr. T.K. Nagaraj**  
 ME. (Civil Engg), Ph.D (Civil Engg)  
 LMISTE, LMIGS, LMIRC  
 LMISRM TT, LMIE  
 Principal

**CO, PO and PSO Mapping and Attainment Process**  
**AY-2018-19**

<b>SUBJECT:</b> Mobile Communication
<b>CLASS:</b> TE E&TC
<b>AY/SEM:</b> 2018-19 /SEM-VIII
<b>SUBJECT TEACHER:</b> Prof. P. R. Shah

**Direct Assessment**

COs	Internal Assessment								External Assessment			Total	
	UNIT TEST		Assignment						Mock Oral	UNIVERSITY THEORY (Online/Insem+Endsem)	UNIVERSITY PR/OR		UNIVERSITY TW
	I	II	1	2	3	4	5	6					
CO1	10		10						10	100	50	50	230
CO2	10			10									230
CO3	10				10								230
CO4		10				10							230
CO5		10					10						230
CO6		10						10					230
<b>Total</b>	30	30	10	10	10	10	10	10	10	100	50	50	

**RECORD OF UNIT TEST MARKS**

SUBJECT: Mobile comm			UNIT TEST MARKS					
CLASS: BE ETC								
AY/SEM: 2018-19 /SEM- VIII			UNIT TEST-I MARKS			UNIT TEST-II MARKS		
SUBJECT TEACHER: PROF. P R SHAH			CO1	CO2	CO3	CO4	CO5	CO6
S. No.	Roll No	Name of Student	10	10	10	10	10	10
1	B15073300 1	Ashwin Abhang	7	7	7	6	6	8
2	B15073300 3	Akshay Kshirsagar	6	7	8	6	8	6
3	B15073300 4	Satyajeet Bansode	7	7	6	6	7	8
4	B15073300 5	Vitthal Chalwade	8	7	7	8	7	7
5	B15073300 6	Dhananjay Gorde	8	6	8	8	8	7
6	B15073300 7	Pravin Dumbare	7	8	8	6	8	6
7	B15073300 8	Yogita Gaikwad	6	6	8	6	7	5
8	B15073300 9	Shubham Ghangurde	5	7	7	7	6	5
9	B15073301 0	Prajakta Ghorpade	8	8	7	6	7	7
10	B15073301 1	Rahul Gotal	7	7	8	7	8	5
11	B15073301 2	Ashwini Jagtap	7	6	7	5	8	7
12	B15073301 3	Akshay Jarande	8	8	7	5	8	5
13	B15073301 4	Sampada Joshi	6	8	8	6	8	8
14	B15073301 5	Shailaja Kabugade	6	7	6	8	8	8

15	B15073301 6	Sneha Kadam	6	8	6	6	7	7
16	B15073301 7	Ashwini Kanade	7	5	8	7	7	3
17	B15073301 8	Pooja Kapse	7	8	7	7	8	6
18	B15073301 9	Jyoti Kattimani	8	6	6	7	7	6
19	B15073302 1	Pooja Khairnar	7	7	8	7	8	7
20	B15073302 2	Nikhil Morde	8	7	7	6	8	7
21	B15073302 3	Dhiraj Papal	7	7	8	6	6	5
22	B15073302 4	Kajal Patil	6	6	6	6	6	5
23	B15073302 5	Snehalata Patil	6	7	8	8	8	5
24	B15073302 6	Kalyani Pawase	6	5	7	7	5	6
25	B15073302 7	Kajal Ramteke	8	6	6	7	8	6
26	B15073302 8	Snehal Satav	4	7	5	5	7	8
27	B15073302 9	Ashwini Shendkar	5	6	7	6	7	8
28	B15073303 0	Mahesh Shete	5	5	4	5	7	6
29	B15073303 2	Rohini Shirke	5	7	7	9	8	8
30	B15073303 4	Nihal Syed	6	6	6	8	8	7
31	B15073303 5	Mayuri Yadav	6	6	5	6	6	7
32	B15073303 6	Sonali Gawali	6	5	6	7	6	7

33	B15073303 7	Ajit Lokhande	6	6	6	6	6	7
34	B15073303 8	Purnam Ambhore	7	6	7	7	6	5
35	B15073303 9	Rohan Kurade	7	7	7	7	7	6
36	B15073304 0	Rahul Kurade	6	7	6	7	6	7
37	B15073304 1	Manoj Gadhave	7	6	7	6	7	6
38	B15073304 2	Niteen Panchal	7	7	7	6	8	7
39	B15073304 3	Ruchita Thak	7	8	6	6	6	6
40	B15073304 4	Prachi Kamble	5	6	7	6	6	7
41	B15073304 5	Annapurna Jevrani	6	7	6	7	7	6
<b>AVERAGE MARKS</b>			<b>6.51</b>	<b>6.66</b>	<b>6.78</b>	<b>6.54</b>	<b>7.07</b>	<b>6.41</b>
<b>NO. OF STUDENTS SCORED MORE THAN 60% MARKS</b>			<b>35</b>	<b>37</b>	<b>38</b>	<b>37</b>	<b>40</b>	<b>32</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>41</b>					
<b>% ATTAINMENT LEVEL</b>			<b>85.37</b>	<b>90.24</b>	<b>92.68</b>	<b>90.24</b>	<b>97.56</b>	<b>78.05</b>
<b>CO ATTAINMENT</b>			<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>2.00</b>



## REORD OF ASSIGNMENT MARKS

SUBJECT: Mobile comm			ASSIGNMENT MARKS						
CLASS: BE ETC									
AY/SEM: 2018-19 /SEM- VIII			A1	A2	A3	A4	A5	A6	Total
SUBJECT TEACHER: PROF. P R SHAH			CO1	CO2	CO3	CO4	CO5	CO6	
S. No.	Roll No	Name of Student	10	10	10	10	10	10	
1	B150733001	Abhang Ashwin Lalasaheb	7	6	6	7	5	5	36
2	B150733003	Akshay Bharat Kshirsagar	9	8	6	7	7	7	44
3	B150733004	Bansode Satyajeet Shivdas	8	6	7	7	8	8	44
4	B150733005	Chalwade Vitthal Dnyanoba	7	8	7	7	8	8	45
5	B150733006	Dhananjay Janardan Gorde	6	8	6	6	8	8	42
6	B150733007	Dumbare Pravin Vasant	8	7	7	8	7	7	44
7	B150733008	Gikwad Yogita Bhikaji	7	8	7	7	8	8	45
8	B150733009	Ghorpade Prajakta Pradip	6	8	6	6	8	8	42
9	B150733010	Gutal Rahul Darsharath	8	7	7	8	7	7	44
10	B150733011	Jagtap Ashwini Anil	7	7	6	7	6	6	39
11	B150733012	Jarande Akshay Niranjana	7	6	6	5	8	8	40
12	B150733013	Joshi Sampada Vijay	7	8	7	7	7	7	43
13	B150733014	Kabugade Shailaja Rajkumar	6	7	7	7	8	8	43
14	B150733015	Kadam Sneha Angad	7	6	7	6	7	7	40
15	B150733016	Kanade Ashwini Pradip	8	7	6	8	6	6	41
16	B150733017	Kapase Pooja Shriram	5	6	7	7	8	8	41
17	B150733018	Kattimani Jyoti Gopal	8	8	6	6	7	7	42
18	B150733019	Khairnar Pooja Dilip	7	7	6	8	7	7	42
19	B150733021	Nikhil Kailas Morde	8	7	6	5	6	6	38
20	B150733022	Papal Dhiraj Arvind	7	9	6	7	8	8	45
21	B150733023	Patil Kajal Sudhakar	7	8	7	8	7	7	44



## MOCK ORAL TEST

SUBJECT: Mobile comm			MOT
CLASS: BE ETC			
AY/SEM: 2018-19 /SEM- VIII			MARKS
SUBJECT TEACHER: PROF. P R SHAH			CO1-CO6
S. No.	Roll No	Name of Student	10
1	B150733001	Abhang Ashwin Lalasaheb	9
2	B150733003	Akshay Bharat Kshirsagar	8
3	B150733004	Bansode Satyajeet Shivdas	7
4	B150733005	Chalwade Vitthal Dnyanoba	7
5	B150733006	Dhananjay Janardan Gorde	6
6	B150733007	Dumbare Pravin Vasant	6
7	B150733008	Gikwad Yogita Bhikaji	6
8	B150733009	Ghorpade Prajakta Pradip	6
9	B150733010	Gutal Rahul Darsharath	7
10	B150733011	Jagtap Ashwini Anil	8

11	B150733012	Jarande Akshay Niranjn	8
12	B150733013	Joshi Sampada Vijay	7
13	B150733014	Kabugade Shailaja Rajkumar	6
14	B150733015	Kadam Sneha Angad	7
15	B150733016	Kanade Ashwini Pradip	7
16	B150733017	Kapase Pooja Shriram	7
17	B150733018	Kattimani Jyoti Gopal	8
18	B150733019	Khairnar Pooja Dilip	6
19	B150733021	Nikhil Kailas Morde	7
20	B150733022	Papal Dhiraj Arvind	8
21	B150733023	Patil Kajal Sudhakar	6
22	B150733024	Patil Snehalata Dhanraj	8
23	B150733025	Pawase Kalyani Sanjay	7
24	B150733026	Ramteke Kajal Panditrao	8
25	B150733027	Satav Snehal Tukaram	7

26	B150733028	Shendkar Ashwini Maruti	7
27	B150733029	Shete Mahesh Rameshwar	7
28	B150733030	Shirke Rohini Shankar	7
29	B150733032	Syed Nihal Ahmed Syed Jameel	7
30	B150733034	Yadav Mayuri Dashrath	6
31	B150733035	Ambhore Purnam Subhash	7
32	B150733036	Gadhawe Manij Abasaheb	8
33	B150733037	Gawali Sonali Vishnupant	6
34	B150733038	Jevrani Annapurna Premchand	7
35	B150733039	Kamble Prachi Gautam	8
36	B150733040	Kurade Rahul Vishnu	8
37	B150733041	Kurade Rohan Vishnu	7
38	B150733042	Lokhande Ajit Dattatray	7
39	B150733043	Niteen Ramdas Panchal	6
40	B150733044	Sonawane Kajal Sunil	8

41	B150733045	Tuwar Rushikesh Patil	7
<b>AVERAGE</b>			<b>7.04</b>
<b>NO. OF STUDENTS SCORED MORE THAN 60% MARKS</b>			<b>41</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>41</b>
<b>% ATTAINMENT LEVEL</b>			<b>100.00</b>
<b>CO ATTAINMENT</b>			<b>3.00</b>

**SUBJECT: Mobile Communication**

**DEGREE: BE ETC**

**SEMESTER: 2018-19 /SEM- VIII**

**SUBJECT TEACHER: P R SHAH**

**Direct Assessment**

COs	Internal Assessment				External Assessment				OVERALL CO ATTAINMENT = (0.3*A+0.7*B)
	ATTAINMENT OF UT	ATTAINMENT OF ASSGN	ATTAINMENT OF MOCK ORAL	ATTAINMENT OF CO ATTAINMENT (A)	ATTAINMENT OF UNIVERSITY EXAM MARKS	ATTAINMENT OF UNIVERSITY PR	ATTAINMENT OF UNIVERSITY TW	Average (B)	
CO1	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
CO2	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
CO3	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
CO4	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
CO5	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
CO6	2.00	3.00	3.00	2.67	3.00	3.00	3.00	3.00	2.90
					Average				2.98

## RECORD OF UNIVERISTY EXAM MARKS

SUBJECT: Mobile comm			UNIVERSITY MARKS			
CLASS: BE ETC						
AY/SEM: 2018-19 /SEM- VIII			TH (Online/ Insem+Endsem)	PR/OR	TW	Total
SUBJECT TEACHER: PROF. P R SHAH			CO1-CO6			
S. No.	Roll No	Name of Student	100	50	50	200
1	B150733001	Abhang Ashwin Lalasaheb	58	41	44	143
2	B150733003	Akshay Bharat Kshirsagar	61	36	40	137
3	B150733004	Bansode Satyaheet Shivdas	68	38	42	148
4	B150733005	Chalwade Vitthal Dnyanoba	66	37	40	143
5	B150733006	Dhananjay Janardan Gorde	73	42	44	159
6	B150733007	Dumbare Pravin Vasant	59	40	43	142
7	B150733008	Gikwad Yogita Bhikaji	62	40	42	144
8	B150733009	Ghorpade Prajakta Pradip	69	45	46	160
9	B150733010	Gutal Rahul Darsharath	64	40	44	148
10	B150733011	Jagtap Ashwini Anil	57	36	39	132
11	B150733012	Jarande Akshay Niranjan	35	35	36	106
12	B150733013	Joshi Sampada Vijay	56	37	38	131
13	B150733014	Kabugade Shailaja Rajkumar	42	36	38	116
14	B150733015	Kadam Sneha Angad	64	43	46	153
15	B150733016	Kanade Ashwini Pradip	71	46	47	164
16	B150733017	Kapase Pooja Shiram	AB	AB	36	36
17	B150733018	Kattimani Jyoti Gopal	42	36	38	116
18	B150733019	Khairnar Pooja Dilip	53	40	43	136
19	B150733021	Nikhil Kailas Morde	71	40	43	154
20	B150733022	Papal Dhiraj Arvind	62	40	44	146
21	B150733023	Patil Kajal Sudhakar	68	45	46	159



22	B150733024	Patil Snehalata Dhanraj	53	42	45	140
23	B150733025	Pawase Kalyani Sanjay	82	44	45	171
	B150733026	Ramteke Kajal Panditrao	66	45	46	157
	B150733027	Satav Snehal Tukaram	67	45	47	159
	B150733028	Shendkar Ashwini Maruti	58	44	45	147
	B150733029	Shete Mahesh Rameshwar	43	36	37	116
	B150733030	Shirke Rohini Shankar	62	39	43	144
	B150733032	Syed Nihal Ahmed Syed Jameel	56	39	43	138
	B150733034	Yadav Mayuri Dashrath	67	46	47	160
	B150733035	Ambhore Purnam Subhash	49	38	40	127
	B150733036	Gadhawe Manij Abasaheb	54	36	38	128
	B150733037	Gawali Sonali Vishnupant	48	46	46	140
	B150733038	Jevrani Annapurna Premchand	28	36	38	102
	B150733039	Kamble Prachi Gautam	50	36	37	123
	B150733040	Kurade Rahul Vishnu	59	38	39	136
	B150733041	Kurade Rohan Vishnu	56	38	39	133
	B150733042	Lokhande Ajit Dattatray	69	39	41	149
	B150733043	Niteen Ramdas Panchal	47	45	45	137
	B150733044	Sonawane Kajal Sunil	AB	35	37	72
	B150733045	Tuwar Rushikesh Patil	41	37	38	116
<b>AVERAGE</b>			<b>60.73</b>	<b>39.95</b>	<b>42.13</b>	<b>138.43</b>
<b>NO. STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>			<b>40</b>	<b>41</b>	<b>41</b>	
<b>TOTAL NO. OF STUDENTS</b>			<b>41</b>	<b>41</b>	<b>41</b>	
<b>% ATTAINMENT LEVEL</b>			<b>97.56</b>	<b>100.00</b>	<b>100.00</b>	
<b>CO ATTAINMENT</b>			<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	

**SUBJECT: Mobile Communication**

**CLASS: BE**

**AY/SEM: 2018-19 /SEM-VIII**

**SUBJECT TEACHER: Mr. P R Shah**

CO CODE	PO1	PO 2	PO 3	PO 4	PO 5	PO6	PO 7	PO 8	PO 9	PO1 0	PO11	PO1 2
404189.1	3	3	-	3	-	-	2	2	-	2	3	3
404189.2	3	3	3	3	3	-	-	-	-	-	-	-
404189.3	3	3		2	2	3	3	2	-	-	-	-
404189.4	3	-	-	2	-	-	-	-	-	3	3	3
404189.5	3	-	-	3	-	-	-	-	2	3	3	3
404189.6	3	3	-	3	2	-	-	-	-	2	3	3
<b>Average</b>	3	3	3	2.7	2.4	3	2.5	2	2	2.5	3	3

<b>CO CODE</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>
404189.1	3	2	2
404189.2	3	3	-
404189.3	3	3	3
404189.4	3	-	-
404189.5	3	-	-
404189.6	2	3	3
<b>Average</b>	2.9	2.75	2.66

## POs & PSOs Attainment

$PO \text{ or } PSO = (\text{Weighted Average value of PO} * \text{CO Attainment Average}) / 3$

Weighted Average is average matrix of CO PO PSO Mapping

### RESULT OF PO & PSO ATAINMENT

POs	PO 1	PO 2	PO 3	PO 4	PO 5	PO6	PO 7	PO 8	PO 9	PO1 0	PO11	PO12	PSO 1	PSO2	PSO 3
WEIGHTED AVERAGE	3	3	3	2.7	2.4	3	2.5	2	2	2.5	3	3	2.9	2.75	2.66
ATTAINMENT LEVEL	2.98	2.98	2.98	2.66	2.35	2.98	2.49	1.99	1.99	2.49	2.98	2.98	2.88	2.73	2.65



**Dr. Y.S. Angal**  
**H.O.D.E&TC**

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Warananagar, Pune-412207



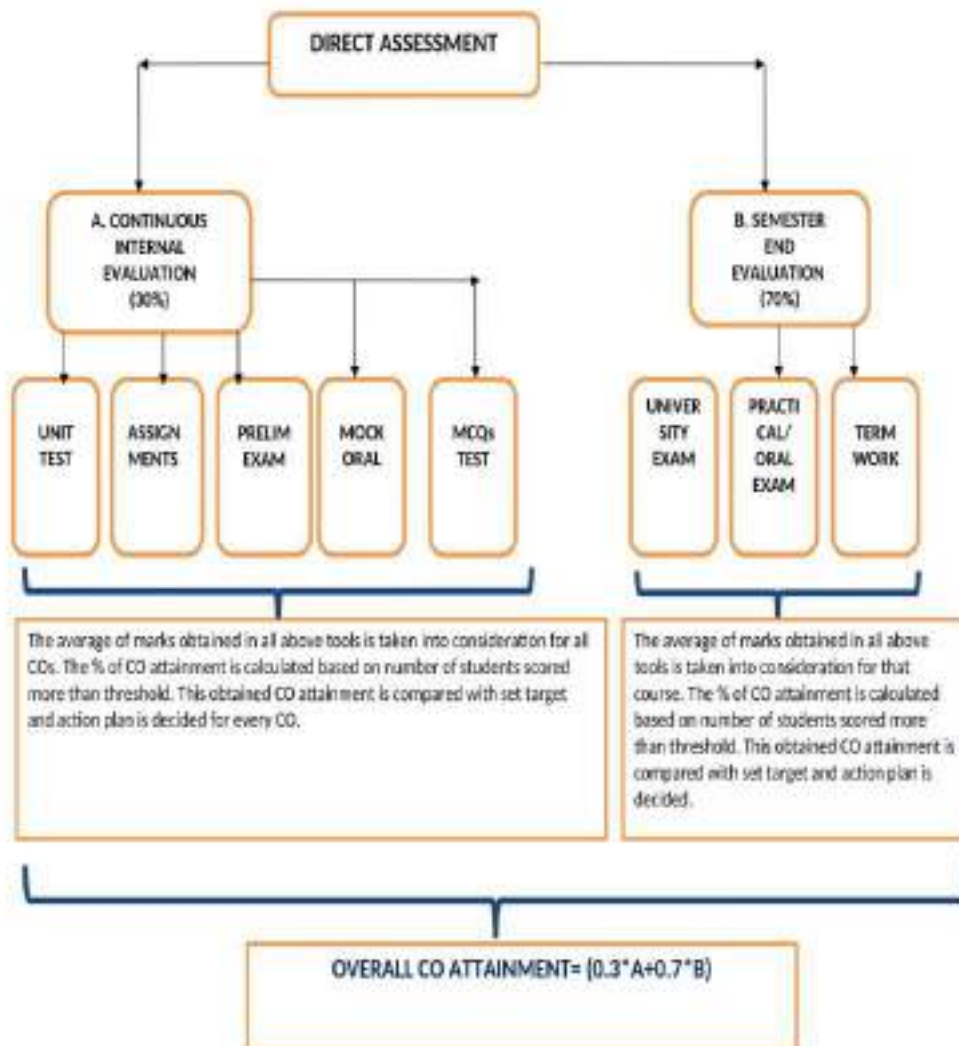
**JSPM's Bhivarabai Sawant Institute of Technology & Research, Wagholi,  
Pune (412207)**

**Academic Year 2019-20**

<b>SUBJECT: WORKSHOP PRACTICES/C109</b>
<b>CLASS: FE MECHANICAL</b>
<b>AY/SEM: 2019-20</b>
<b>SUBJECT TEACHER :</b>

**Direct Assessment**

COs	Assignment					Mock Oral	External Assessment			Total
							UNIVERSITY THEORY (Endsem)	UNIVERSITY PR/OR	UNIVERSITY TW	
	1	2	3	4	5					
CO1	NA					50	NA		25	75
CO2		NA								75
CO3			NA							75
CO4				NA						75
CO5					NA					75
<b>Total</b>	NA	NA	NA	NA	NA	50	NA		25	



<b>RECORD OF MOCK ORAL</b>			
<b>SUBJECT : WORKSHOP PRACTICES/C109</b>			<b>MOCK ORAL MARKS</b>
<b>CLASS: FE MECHANICAL</b>			
<b>AY/SEM: 2019-20</b>			<b>CO1-CO4</b>
<b>SUBJECT TEACHER :</b>			
<b>S. No.</b>	<b>Roll No</b>	<b>Name of Student</b>	<b>50</b>
1	1122	SANKPAL SHREYAS BALASAHEB	34
2	1405	AWARE SHEWATA KIRAN	32
3	1434	PURVA VIJAY AWALE	37
4	1111	BAIKARE GANESH UTTAM	38
5	1108	ASHISH KAILAS BHUTE	33
6	1209	CHAUDHARI VRUSHALI NANA	37
7	1207	CHAVAN JAY SHRIDHAR	30
8	1410	CHINTALGHAT SHUBHAM SAINATH	36
9	1319	GOTE DIPALI NAMDEV	40
10	1435	RAJASHREE NAMDEV GOTE	46
11	1313	DHIRAJ PANDHARINATH JADHAV	32
12	1244	SAKSHI SANTOSH KHEDKAR	36
13	1337	PRANAV PRAMOD KHULPE	30
14	1422	HARSHAD CHANDRAKANT KOHINKAR	44
15	1219	KUMBHAR OMKAR SANJAY	38
16	1220	KUNAL SHRIMANT VADMARE	44
17	1330	NAWAL AKASH ADINATH	32
18	1221	KUNDAN YUVRAJ PARADE	37
19	1428	PATIL JAY SANJAY	36
20	1441	SANKET PANDURANG PATIL	39
21	1309	BALAJI DATTATRAY PAWAR	37
22	1343	RUSHIKESH SHUBHASH SHINDE	34
23	1331	NIHAL FAIYAZ SAYYAD	37
24	1359	VIVEK KESHAV SONAWANE	32



25	1415	GANGAPRASAD NAGARAO SUPARE	<b>34</b>
26	1355	UMESH RAMESH PAWAR	<b>36</b>
27	1341	RUCHIKA KRUSHNAT WAYKAR	<b>33</b>
<b>AVERAGE</b>			<b>36.00</b>
<b>NO. OF STUDENTS SCORED MORE THAN THAN THRESHOLD MARKS (60%)= <math>0.60*50=</math> 30</b>			<b>27</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>27</b>
<b>CO ATTAINMENT IN %</b>			<b>100.00</b>
<b>CO ATTAINMENT LEVEL</b>			<b>3.00</b>
<b>TARGET</b>			<b>60</b>

**RECORD OF UNIVERISTY EXAM MARKS**

SUBJECT: WORKSHOP PRACTICES			UNIVERSITY MARKS
CLASS: F.E. MECHANICAL			
AY/SEM: 2019-20/SEM-I			
SUBJECT TEACHER :			TW
S. No.	Roll No	Name of Student	25
1	1122	SANKPAL SHREYAS BALASAHEB	24
2	1405	AWARE SHEWATA KIRAN	15
3	1434	PURVA VIJAY AWALE	24
4	1111	BAIKARE GANESH UTTAM	21
5	1108	ASHISH KAILAS BHUTE	23
6	1209	CHAUDHARI VRUSHALI NANA	23
7	1207	CHAVAN JAY SHRIDHAR	20
8	1410	CHINTALGHAT SHUBHAM SAINATH	20
9	1319	GOTE DIPALI NAMDEV	22
10	1435	RAJASHREE NAMDEV GOTE	24
11	1313	DHIRAJ PANDHARINATH JADHAV	20
12	1244	SAKSHI SANTOSH KHEDKAR	23
13	1337	PRANAV PRAMOD KHULPE	24
14	1422	HARSHAD CHANDRAKANT KOHINKAR	15
15	1219	KUMBHAR OMKAR SANJAY	21
16	1220	KUNAL SHRIMANT VADMARE	20
17	1330	NAWAL AKASH ADINATH	17
18	1221	KUNDAN YUVRAJ PARADE	18
19	1428	PATIL JAY SANJAY	18
20	1441	SANKET PANDURANG PATIL	22
21	1309	BALAJI DATTATRAY PAWAR	20

22	1343	RUSHIKESH SHUBHASH SHINDE	20
23	1331	NIHAL FAIYAZ SAYYAD	19
24	1359	VIVEK KESHAV SONAWANE	18
25	1415	GANGAPRASAD NAGARAO SUPARE	15
26	1355	UMESH RAMESH PAWAR	20
27	1341	RUCHIKA KRUSHNAT WAYKAR	22
<b>AVERAGE</b>			20
<b>NO. OF STUDENTS SCORED MORE THAN THAN THRESHOLD MARKS</b>			23
<b>TOTAL NO. OF STUDENTS</b>			27
<b>CO ATTAINMENT IN %</b>			85
<b>CO ATTAINMENT LEVEL</b>			<b>3.00</b>
<b>TARGET</b>			73.3
<b>CO</b>	<b>Target vs Attainment</b>		<b>Gap in%</b>
<b>CO1-CO4</b>	<b>T</b>	73.30	-
	<b>A</b>	85.19	

**SUBJECT : WORKSHOP**  
**CLASS: FE ME**  
**AY/SEM:2019-20 /SEM-I**  
**SUBJECT TEACHER :**

**Direct Assessment**

COs	Internal Assessment			External Assessment	OVERALL CO ATTAINMENT = (0.3*A+0.7*B)	Target CIE	Target SEE	Overall Target
	ATTAINMENT OF ASSGN	ATTAINMENT OF MOCK ORAL	AVERAGE OF CO ATTAINMENT (A)	ATTAINMENT OF UNIVERSITY EXAM MARKS (B)				
CO1	-	100.00	100.00	85.19	89.63	60	73.3	81.31
CO2	-	100.00	100.00	85.19	89.63	60	73.3	81.31
CO3	-	100.00	100.00	85.19	89.63	60	73.3	81.31
CO4	-	100.00	100.00	85.19	89.63	60	73.3	81.31

CO	Target vs Attainment		Gap in%	Action Plan/Remark
CO1	T	81.31	-	
	A	89.63		
CO2	T	81.31	-	
	A	89.63		
CO3	T	81.31	-	
	A	89.63		
CO4	T	81.31	-	
	A	89.63		

<b>SUBJECT : WORKSHOP PRACTICES/C109</b>
<b>CLASS: F.E.-MECHANICAL</b>
<b>AY/SEM:2019-20</b>
<b>SUBJECT TEACHER :</b>

CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
<b>C109.1</b>	-	-	-	-	-	-	-	-	-	-	-	-
<b>C109.2</b>	1	1	1	-	-	-	-	-	-	-	-	-
<b>C109.3</b>	2	-	-	-	-	-	-	-	-	-	-	-
<b>C109.4</b>	1	-	-	-	-	-	-	-	-	-	-	-
<b>Average</b>	1.33	1	1	-	-	-	-	-	-	-	-	-

### POs & PSOs Attainment

**PO or PSO=(Weighted Average value of PO\*CO Attainment Average)/3**

Weighted Average is average matrix of CO PO PSO Mapping

### RESULT OF PO & PSO ATAINMENT

POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
<b>WEIGHTED AVERAGE</b>	1.33	1	1	-	-	-	-	-	-	-	-	-
<b>ATTAINMENT LEVEL</b>	<b>1.19</b>	<b>0.90</b>	<b>0.90</b>									



**JAYAWANT SHIKSHAN PRASARAK MANDAL'S**  
**Bhivarabai Sawant Institute of Technology & Research**

(Approved by AICTE New Delhi, DTE Mumbai & Affiliated to Savitribai Phule Pune University)

Accredited with B++ Grade by NAAC

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[EN 631] / [CEGP-013100]



**Prof. Dr. T. J. Sawant**  
 B.E. (Elec.) PGDM, Ph.D  
 Founder Secretary

**Dr. T.K. Nagaraj**  
 ME. (Civil Engg), Ph.D (Civil Engg)  
 LMISTE, LMIGS, LMIRC  
 LMISRM TT, LMIE  
 Principal

**CO, PO and PSO Mapping and Attainment Process**  
**Academic Year 2019-20**

**SUBJECT: DIGITAL SIGNAL PROCESSING**

**CLASS: TE ETC**

**AY/SEM: 2019-20 /SEM-I**

**SUBJECT TEACHER:Dr. ANIL L WANARE**

**Direct Assessment**

COs	Internal Assessment								External Assessment			Total	
	UNIT TEST		Assignment						Mock Oral	UNIVERSITY THEORY (Online/Insem+Endsem)	UNIVERSITY PR/OR		UNIVERSITY TW
	I	II	1	2	3	4	5	6					
									10	100	50	50	
CO1	10		10						10	100	50	50	230
CO2	10			10									230
CO3	10				10								230
CO4		10				10							230
CO5		10					10						230
CO6		10						10					230
<b>Total</b>	30	30	10	10	10	10	10	10	10	100	50	50	

## REORD OF UNIT TEST MARKS

SUBJECT: DIGITAL SIGNAL PROCESSING			UNIT TEST MARKS					
CLASS: TE ETC			UNIT TEST-I MARKS			UNIT TEST-II MARKS		
AY/SEM: 2019-20 /SEM- I			CO1	CO2	CO3	CO4	CO5	CO6
SUBJECT TEACHER: Dr. ANIL WANARE/MEENAKSHI ANNAMALI			10	10	10	10	10	10
S. No.	Roll No	Name of Student	10	10	10	10	10	10
1	71721914D	GADE SHUBHAM VASANTRAO	8	7	10	8	6	6
2	71839413F	AKANKSHA KUMARI	5	4	7	6	6	7
3	71839483G	CHAUDHARI SNEHAL TUKARAM	6	4	7	7	6	7
4	71839524H	DHANE AMITA SHARAD	7	7	8	8	8	2
5	71839629E	JAGTAP GANESH KESHAV	9	7	10	7	7	6
6	71839643L	KACHHAWA KAVITA RAJENDRA	8	6	6	6	7	7
7	71839723B	MAHAJAN GAYATRI SHASHIKANT	10	5	7	7	7	4
8	71839745C	MATEKAR SHILA SHARAD	6	7	6	6	6	7
9	71839938C	SHINDE SHREYAS RAVIKANT	6	7	7	7	4	7
10	71839951L	SOLEPATIL ADITI AVINASH	7	6	7	6	5	6
11	71839970G	TANPURE MAHESH PRAKASH	7	8	7	7	4	7
12	71934769G	AGARWAL RAHUL SATISH	7	6	6	7	7	6
13	71934770L	AKASH ANKUSH GAIKWAD	6	7	6	8	0	6
14	71934771J	ANKITA BHOGADE	7	7	8	8	8	7
15	71934773E	CHAVARE PRASAD RAJKUMAR	6	7	8	7	6	4
16	71934774C	DHAME SHITAL GANPAT	8	8	7	6	6	7
17	71934775M	GADADE SHIVRAJ PRAKASH	8	6	6	8	7	7
18	71934776K	JADHAV MADHURI GOVIND	7	8	7	8	6	7
19	71934778F	KAGANE NAYAN ANNA	7	0	8	5	5	6
20	71934779D	KAKDE PRANJALI DAYANAND	6	7	7	6	6	6

21	71934780H	KALE MANOJ KAILAS	4	5	3	7	6	8
22	71934781F	KHAIRE SAYALI PRAKASH	5	0	8	7	7	7
23	71934782D	LAVARE SHAKUNTALA DATTATRAY	0	5	8	8	6	6
24	71934783B	RANSING DIPALI BAPU	6	6	7	7	5	7
25	71934784L	RASAL SHIVKANYA ANIL	6	7	8	7	7	6
26	71934786G	SAWALE ABHIJIT RAJENDRA	6	8	5	7	6	8
27	71934788C	VETAL VIJAYA DATTATRAY	7	10	6	8	7	8
<b>AVERAGE MARKS</b>			<b>6.48</b>	<b>6.11</b>	<b>7.04</b>	<b>7.00</b>	<b>5.96</b>	<b>6.37</b>
<b>NO. OF STUDENTS SCORED MORE THAN 60% MARKS</b>			<b>23</b>	<b>20</b>	<b>25</b>	<b>26</b>	<b>21</b>	<b>24</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>27</b>					
<b>% ATTAINMENT LEVEL</b>			<b>85.19</b>	<b>74.07</b>	<b>92.59</b>	<b>96.30</b>	<b>77.78</b>	<b>88.89</b>
<b>CO ATTAINMENT</b>			<b>3.00</b>	<b>2.00</b>	<b>3.00</b>	<b>3.00</b>	<b>2.00</b>	<b>3.00</b>



## REORD OF ASSIGNMENT MARKS

REORD OF ASSIGNMENT MARKS									
SUBJECT: DIGITAL SIGNAL PROCESSING			ASSIGNMENT MARKS						
CLASS: TE ETC									
AY/SEM: 2019-20 /SEM- I			A1	A2	A3	A4	A5	A6	Total
SUBJECT TEACHER: Dr. ANIL WANARE/MEENAKSHI ANNAMALI			CO1	CO2	CO3	CO4	CO5	CO6	
S. No.	Roll No	Name of Student	10	10	10	10	10	10	
1	71721914D	GADE SHUBHAM VASANTRAO	8	6	6	7	6	7	40
2	71839413F	AKANKSHA KUMARI	6	8	7	7	8	9	45
3	71839483G	CHAUDHARI SNEHAL TUKARAM	6	7	7	6	8	9	43
4	71839524H	DHANE AMITA SHARAD	8	7	9	8	7	9	48
5	71839629E	JAGTAP GANESH KESHAV	5	5	4	8	6	5	33
6	71839643L	KACHHAWA KAVITA RAJENDRA	7	6	5	8	6	7	39
7	71839723B	MAHAJAN GAYATRI SHASHIKANT	7	8	7	7	7	8	44
8	71839745C	MATEKAR SHILA SHARAD	6	7	7	6	8	9	43
9	71839938C	SHINDE SHREYAS RAVIKANT	8	7	9	8	7	9	48
10	71839951L	SOLEPATIL ADITI AVINASH	5	5	4	5	6	5	30
11	71839970G	TANPURE MAHESH PRAKASH	7	6	5	5	6	7	36
12	71934769G	AGARWAL RAHUL SATISH	7	8	7	7	7	8	44
13	71934770L	AKASH ANKUSH GAIKWAD	6	7	8	7	8	6	42
14	71934771J	ANKITA BHOGADE	7	7	8	6	7	6	41
15	71934773E	CHAVARE PRASAD RAJKUMAR	6	5	5	5	6	6	33
16	71934774C	DHAME SHITAL GANPAT	5	6	6	5	5	5	32
17	71934775M	GADADE SHIVRAJ PRAKASH	8	7	7	6	7	8	43
18	71934776K	JADHAV MADHURI GOVIND	7	7	5	8	5	6	38
19	71934778F	KAGANE NAYAN ANNA	8	7	6	5	6	6	38
20	71934779D	KAKDE PRANJALI DAYANAND	7	9	9	7	8	9	49
21	71934780H	KALE MANOJ KAILAS	7	8	9	8	7	6	45

22	71934781F	KHAIRE SAYALI PRAKASH	8	8	8	7	7	8	46
23	71934782D	LAVARE SHAKUNTALA DATTATRAY	7	8	6	8	6	7	42
24	71934783B	RANSING DIPALI BAPU	7	7	8	5	5	7	39
25	71934784L	RASAL SHIVKANYA ANIL	5	5	6	6	6	7	35
26	71934786G	SAWALE ABHIJIT RAJENDRA	6	7	8	7	8	9	45
27	71934788C	VETAL VIJAYA DATTATRAY	8	7	8	8	9	9	49
<b>AVERAGE</b>			<b>6.74</b>	<b>6.85</b>	<b>6.81</b>	<b>6.67</b>	<b>6.74</b>	<b>7.30</b>	<b>41.11</b>
<b>NO. OF STUDENTS SCORED MORE THAN 60% MARKS</b>			<b>23</b>	<b>23</b>	<b>21</b>	<b>21</b>	<b>24</b>	<b>24</b>	
<b>TOTAL NO. OF STUDENTS</b>			<b>27</b>						
<b>% ATTAINMENT LEVEL</b>			<b>85.19</b>	<b>85.19</b>	<b>77.78</b>	<b>77.78</b>	<b>88.89</b>	<b>88.89</b>	
<b>CO ATTAINMENT</b>			<b>3.00</b>	<b>3.00</b>	<b>2.00</b>	<b>2.00</b>	<b>3.00</b>	<b>3.00</b>	

## MOCK ORAL TEST

SUBJECT: DIGITAL SIGNAL PROCESSING			MOT
CLASS: TE ETC			
AY/SEM: 2019-20 /SEM- I			MARKS
SUBJECT TEACHER: Dr. ANIL WANARE			CO1-CO6
S. No.	Roll No	Name of Student	10
1	71721914D	GADE SHUBHAM VASANTRAO	6
2	71839413F	AKANKSHA KUMARI	6
3	71839483G	CHAUDHARI SNEHAL TUKARAM	7
4	71839524H	DHANE AMITA SHARAD	8
5	71839629E	JAGTAP GANESH KESHAV	7
6	71839643L	KACHHAWA KAVITA RAJENDRA	7
7	71839723B	MAHAJAN GAYATRI SHASHIKANT	8
8	71839745C	MATEKAR SHILA SHARAD	8
9	71839938C	SHINDE SHREYAS RAVIKANT	8
10	71839951L	SOLEPATIL ADITI AVINASH	8
11	71839970G	TANPURE MAHESH PRAKASH	7
12	71934769G	AGARWAL RAHUL SATISH	6
13	71934770L	AKASH ANKUSH GAIKWAD	8
14	71934771J	ANKITA BHOGADE	8
15	71934773E	CHAVARE PRASAD RAJKUMAR	8
16	71934774C	DHAME SHITAL GANPAT	8
17	71934775M	GADADE SHIVRAJ PRAKASH	7
18	71934776K	JADHAV MADHURI GOVIND	7
19	71934778F	KAGANE NAYAN ANNA	8
20	71934779D	KAKDE PRANJALI DAYANAND	6

21	71934780H	KALE MANOJ KAILAS	8
22	71934781F	KHAIRE SAYALI PRAKASH	8
23	71934782D	LAVARE SHAKUNTALA DATTATRAY	8
24	71934783B	RANSING DIPALI BAPU	7
25	71934784L	RASAL SHIVKANYA ANIL	7
26	71934786G	SAWALE ABHIJIT RAJENDRA	8
27	71934788C	VETAL VIJAYA DATTATRAY	8
<b>AVERAGE</b>			<b>7.41</b>
<b>NO. OF STUDENTS SCORED MORE THAN 60% MARKS</b>			<b>27</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>27</b>
<b>% ATTAINMENT LEVEL</b>			<b>100.00</b>
<b>CO ATTAINMENT</b>			<b>3.00</b>

## RECORD OF UNIVERISTY EXAM MARKS

RECORD OF UNIVERISTY EXAM MARKS						
SUBJECT: DIGITAL SIGNAL PROCESSING			UNIVERSITY MARKS			
CLASS: TE ETC						
AY/SEM: 2019-20 /SEM- I			TH (Online/ Insem+Endsem)	PR/OR	TW	Total
SUBJECT TEACHER: Dr. ANIL WANARE			CO1-CO6			
S. No.	Roll No	Name of Student	100	50	50	200
1	71721914D	GADE SHUBHAM VASANTRAO	45	42	43	130
2	71839413F	AKANKSHA KUMARI	64	43	47	154
3	71839483G	CHAUDHARI SNEHAL TUKARAM	53	40	44	137
4	71839524H	DHANE AMITA SHARAD	31	41	44	116
5	71839629E	JAGTAP GANESH KESHAV	55	41	45	141
6	71839643L	KACHHAWA KAVITA RAJENDRA	25	30	38	93
7	71839723B	MAHAJAN GAYATRI SHASHIKANT	34	41	43	118
8	71839745C	MATEKAR SHILA SHARAD	40	37	43	120
9	71839938C	SHINDE SHREYAS RAVIKANT	33	39	43	115
10	71839951L	SOLEPATIL ADITI AVINASH	40	41	44	125
11	71839970G	TANPURE MAHESH PRAKASH	38	39	44	121
12	71934769G	AGARWAL RAHUL SATISH	40	38	39	117
13	71934770L	AKASH ANKUSH GAIKWAD	43	40	44	127
14	71934771J	ANKITA BHOGADE	44	43	46	133
15	71934773E	CHAVARE PRASAD RAJKUMAR	25	29	33	87
16	71934774C	DHAME SHITAL GANPAT	33	37	38	108
17	71934775M	GADADE SHIVRAJ PRAKASH	50	35	35	120
18	71934776K	JADHAV MADHURI GOVIND	50	44	47	141
19	71934778F	KAGANE NAYAN ANNA	29	31	35	95

20	71934779D	KAKDE PRANJALI DAYANAND	16	37	40	93
21	71934780H	KALE MANOJ KAILAS	8	29	33	70
22	71934781F	KHAIRE SAYALI PRAKASH	31	39	44	114
23	71934782D	LAVARE SHAKUNTALA DATTATRAY	44	38	41	123
24	71934783B	RANSING DIPALI BAPU	13	30	35	78
25	71934784L	RASAL SHIVKANYA ANIL	22	34	35	91
26	71934786G	SAWALE ABHIJIT RAJENDRA	39	40	43	122
27	71934788C	VETAL VIJAYA DATTATRAY	43	39	42	124
<b>AVERAGE</b>			<b>36.59</b>	<b>37.67</b>	<b>41.04</b>	<b>115.30</b>
<b>NO. STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>			<b>13</b>	<b>27</b>	<b>27</b>	
<b>TOTAL NO. OF STUDENTS</b>			<b>27</b>	<b>27</b>	<b>27</b>	
<b>% ATTAINMENT LEVEL</b>			<b>48.15</b>	<b>100.00</b>	<b>100.00</b>	
<b>CO ATTAINMENT</b>			<b>0.00</b>	<b>3.00</b>	<b>3.00</b>	

**SUBJECT: DIGITAL SIGNAL PROCESSING**

**CLASS: TE ETC**

**AY/SEM: 2019-20 /SEM-I**

**SUBJECT TEACHER: DR ANIL LW ANARE & Meenakshi Annamalai**

**Direct Assessment**

COs	Internal Assessment				External Assessment				OVERALL CO ATTAINMENT = $(0.3*A+0.7*B)$
	ATTAINMENT OF UT	ATTAINMENT OF ASSGN	ATTAINMENT OF MOCK ORAL	AVERAGE OF CO ATTAINMENT (A)	ATTAINMENT OF UNIVERSITY EXAM MARKS	ATTAINMENT OF UNIVERSITY PR	ATTAINMENT OF UNIVERSITY TW	Average (B)	
CO1	3.00	3.00	3.00	3.00	0.00	3.00	3.00	3.00	3.00
CO2	2.00	3.00	3.00	2.67	0.00	3.00	3.00	3.00	2.90
CO3	3.00	2.00	3.00	2.67	0.00	3.00	3.00	3.00	2.90
CO4	3.00	2.00	3.00	2.67	0.00	3.00	3.00	3.00	2.90
CO5	2.00	3.00	3.00	2.67	0.00	3.00	3.00	3.00	2.90
CO6	3.00	3.00	3.00	3.00	0.00	3.00	3.00	3.00	3.00
					Average				2.93

**SUBJECT: DIGITAL SIGNAL PROCESSING**

**CLASS: TE ETC**

**AY/SEM: 2019-10 /SEM-I**

**SUBJECT TEACHER: DR ANIL L WANARE**

CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
304182.1	3	3	-	2	1	2	-	-	-	-	-	2
304182.2	3	3	-	2	1	2	-	-	-	-	-	2
304182.3	3	3	-	2	1	2	-	-	-	-	-	2
304182.4	3	3	-	2	1	2	-	-	-	-	-	2
304182.5	2	2	3	2	2	2	-	-	-	-	-	2
304182.6	2	-	3	2	2	3	-	-	-	-	-	2
<b>Average</b>	2.66	2.9	3	2	1.3	2.2	-	-	-	-	-	2

CO CODE	PSO1	PSO2	PSO3
304182.1	3	2	-
304182.2	3	2	-
304182.3	3	2	-
304182.4	3	2	-
304182.5	3	2	-
304182.6	3	3	-
<b>Average</b>	3	2.16	-



## POs & PSOs Attainment

$PO \text{ or } PSO = (\text{Weighted Average value of } PO * CO \text{ Attainment Average}) / 3$

Weighted Average is average matrix of CO PO PSO Mapping

### RESULT OF PO & PSO ATAINMENT

POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
WEIGHTED AVERAGE	2.66	2.9	3	2	1.3	2.2	0	0	0	0	0	2	3	2.16	0
ATTAINMENT LEVEL	2.60	2.84	2.93	1.96	1.30	2.11	0.00	0.00	0.00	0.00	0.00	1.96	2.93	2.11	0.00

  
**Dr. Y.S. Angal**  
**H.O.D.(E&TC)**

## Direct Assessment

Direct Assessment														
COs	CONTINUOUS INTERNAL EVALUATION (CIE)											SEMESTER END EVALUATION (SEE)		
	UNIT TEST			ASSIGNMENTS						PRELIM EXAM	MOCK ORAL	MCQs TEST	UNIVERSITY THEORY	UNIVERSITY PR/OR/TW
	TOOL1			TOOL 2						TOOL 3	TOOL 4	TOOL 5	TOOL 1	TOOL 2
	1	2	3	1	2	3	4	5	6					
CO1	15			10							10	10	100	25
CO2	15				10						10	10		
CO3		15				10				17	10	10		
CO4		15					10			18	10	10		
CO5			15					10		17	10	10		
CO6			15						10	18	10	10		
<b>Total</b>	30	30	30	10	10	10	10	10	10	70	60	60	100	25
<b>INTERNAL ASSESSMENT(30%)</b>											<b>EXTERNAL ASSESSMENT(70%)</b>			

**RECORD OF UNIT TEST MARKS**

SUBJECT:C 105- BASIC ELECTRICAL ENGINEERING (103004)			UNIT TEST MARKS					
CLASS: F.E. Mechanical			UNIT TEST MARKS					
AY/SEM:2020-21 /SEM- I			UNIT TEST-I MARKS		UNIT TEST-II MARKS		UNIT TEST-II MARKS	
SUBJECT TEACHER-PROF.MANJUSHA PATIL			CO1	CO2	CO3	CO4	CO5	CO6
S. No.	Roll No	Name of Student	15	15	15	15	15	15
1	1467	AAKASH SURESH BHAPKAR	15	9	14	12	14	12
2	1551	ABHISHEK SUBHASH LOKHANDE	15	9	15	9	12	14
3	1553	BENGAL PRATIK KESHAV	12	11	11	11	12	13
4	1554	DAUNDKAR DINESH SANTOSH	11	10	11	12	14	14
5	1555	HIRE TANMAY SANJAY	11	9	15	15	11	10
6	1556	KULAL SUPRIYA SANDIP	15	9	11	10	9	10
7	1557	ROHAN HANUMANT SHINDE	15	15	13	11	9	11
8	1558	SHINDE SUMIT MANIK	15	14	12	11	10	12
9	1559	TAWARE KANTILAL RAMCHANDRA	12	11	15	9	9	11
10	1560	WALUNJ PRASAD BALASAHEB	9	9	14	13	11	15
11	1561	ZAWARE RUSHIKESH JALINDAR	14	10	10	10	9	15
AVERAGE MARKS			13.00	11.00	13.00	11.00	11.00	12.00
NO. OF STUDENTS SCORED MORE THAN THAN THRESHOLD MARKS (60%)			10	6	11	9	7	11
TOTAL NO. OF STUDENTS			11	11	11	11	11	11
CO ATTAINMENT IN %			90.91	54.55	100.00	81.82	63.64	100.00
CO ATTAINMENT LEVEL			<b>3.00</b>	<b>2.00</b>	<b>3.00</b>	<b>3.00</b>	<b>2.00</b>	<b>3.00</b>
TARGET			60	60	60	60	60	60

## RECORD OF ASSIGNMENT MARKS

SUBJECT:C 105- BASIC ELECTRICAL ENGINEERING (103004)			ASSIGNMENT MARKS					
CLASS: F.E. Mechanical								
AY/SEM:2020-21			A1	A2	A3	A4	A5	A6
SUBJECT TEACHER-PROF.MANJUSHA PATIL			CO1	CO2	CO3	CO4	CO5	CO6
S. No.	Roll No	Name of Student	10	10	10	10	10	10
1	1467	AAKASH SURESH BHAPKAR	6	6	10	5	7	9
2	1551	ABHISHEK SUBHASH LOKHANDE	6	5	8	9	7	8
3	1553	BENGAL PRATIK KESHAV	7	8	9	6	5	5
4	1554	DAUNDKAR DINESH SANTOSH	8	10	8	10	7	8
5	1555	HIRE TANMAY SANJAY	7	6	6	6	10	7
6	1556	KULAL SUPRIYA SANDIP	7	9	9	9	5	7
7	1557	ROHAN HANUMANT SHINDE	9	8	9	8	10	5
8	1558	SHINDE SUMIT MANIK	6	8	6	5	8	9
9	1559	TAWARE KANTILAL RAMCHANDRA	6	8	5	6	7	9
10	1560	WALUNJ PRASAD BALASAHEB	5	7	9	9	5	7
11	1561	ZAWARE RUSHIKESH JALINDAR	6	8	6	9	7	6
<b>AVERAGE</b>			7.00	8.00	8.00	7.00	7.00	7.00
NO. OF STUDENTS SCORED MORE THAN THAN THRESHOLD MARKS			5	8	7	6	8	8
TOTAL NO. OF STUDENTS			11	11	11	11	11	11
CO ATTAINMENT IN %			45.45	72.73	63.64	54.55	72.73	72.73
CO ATTAINMENT LEVEL			<b>1.00</b>	<b>2.00</b>	<b>2.00</b>	<b>2.00</b>	<b>2.00</b>	<b>2.00</b>
TARGET			60	60	60	60	60	60

<b>RECORD OF MOCK ORAL</b>			
<b>SUBJECT:C 105- BASIC ELECTRICAL ENGINEERING (103004)</b>			<b>MOCK ORAL MARKS</b>
<b>CLASS: F.E. Mechanical</b>			
<b>AY/SEM:2020-21 /SEM- I</b>			
<b>SUBJECT TEACHER-PROF.MANJUSHA PATIL</b>			<b>CO1-CO6</b>
<b>S. No.</b>	<b>Roll No</b>	<b>Name of Student</b>	<b>60</b>
1	1467	AAKASH SURESH BHAPKAR	41
2	1551	ABHISHEK SUBHASH LOKHANDE	55
3	1553	BENGAL PRATIK KESHAV	40
4	1554	DAUNDKAR DINESH SANTOSH	48
5	1555	HIRE TANMAY SANJAY	53
6	1556	KULAL SUPRIYA SANDIP	50
7	1557	ROHAN HANUMANT SHINDE	44
8	1558	SHINDE SUMIT MANIK	41
9	1559	TAWARE KANTILAL RAMCHANDRA	49
10	1560	WALUNJ PRASAD BALASAHEB	40
11	1561	ZAWARE RUSHIKESH JALINDAR	39
<b>AVERAGE</b>			45.00
<b>NO. OF STUDENTS SCORED MORE THAN THAN THRESHOLD MARKS</b>			<b>11</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>11</b>
<b>CO ATTAINMENT IN %</b>			<b>100.00</b>
<b>CO ATTAINMENT LEVEL</b>			<b>3.00</b>
<b>TARGET</b>			<b>60</b>

<b>RECORD OF PRELIM EXAM</b>			
<b>SUBJECT:C 105- BASIC ELECTRICAL ENGINEERING (103004)</b>			<b>PRELIM EXAM MARKS</b>
<b>CLASS: F.E. Mechanical</b>			
<b>AY/SEM:2020-21 /SEM- I</b>			
<b>SUBJECT TEACHER-PROF.MANJUSHA PATIL</b>			<b>CO1-CO6</b>
<b>S. No.</b>	<b>Roll No</b>	<b>Name of Student</b>	<b>70</b>
1	1467	AAKASH SURESH BHAPKAR	58
2	1551	ABHISHEK SUBHASH LOKHANDE	54
3	1553	BENGAL PRATIK KESHAV	66
4	1554	DAUNDKAR DINESH SANTOSH	46
5	1555	HIRE TANMAY SANJAY	58
6	1556	KULAL SUPRIYA SANDIP	55
7	1557	ROHAN HANUMANT SHINDE	66
8	1558	SHINDE SUMIT MANIK	55
9	1559	TAWARE KANTILAL RAMCHANDRA	52
10	1560	WALUNJ PRASAD BALASAHEB	51
11	1561	ZAWARE RUSHIKESH JALINDAR	67
<b>AVERAGE</b>			57.00
<b>NO. OF STUDENTS SCORED MORE THAN THAN THRESHOLD MARKS</b>			<b>11</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>11</b>
<b>CO ATTAINMENT IN %</b>			<b>100.00</b>
<b>CO ATTAINMENT LEVEL</b>			<b>3.00</b>
<b>TARGET</b>			60

<b>RECORD OF MCQ EXAM</b>			
<b>SUBJECT:C 105- BASIC ELECTRICAL ENGINEERING (103004)</b>			<b>PRELIM EXAM MARKS</b>
<b>CLASS: F.E.Mechanical</b>			
<b>AY/SEM:2020-21 /SEM- I</b>			
<b>SUBJECT TEACHER-PROF.MANJUSHA PATIL</b>			<b>CO1-CO6</b>
<b>S. No.</b>	<b>Roll No</b>	<b>Name of Student</b>	<b>60</b>
1	1467	AAKASH SURESH BHAPKAR	60
2	1551	ABHISHEK SUBHASH LOKHANDE	53
3	1553	BENGAL PRATIK KESHAV	46
4	1554	DAUNDKAR DINESH SANTOSH	58
5	1555	HIRE TANMAY SANJAY	49
6	1556	KULAL SUPRIYA SANDIP	58
7	1557	ROHAN HANUMANT SHINDE	52
8	1558	SHINDE SUMIT MANIK	44
9	1559	TAWARE KANTILAL RAMCHANDRA	57
10	1560	WALUNJ PRASAD BALASAHEB	46
11	1561	ZAWARE RUSHIKESH JALINDAR	45
<b>AVERAGE</b>			<b>52.00</b>
<b>NO. OF STUDENTS SCORED MORE THAN THAN THRESHOLD MARKS</b>			<b>11</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>11</b>
<b>CO ATTAINMENT IN %</b>			<b>100.00</b>
<b>CO ATTAINMENT LEVEL</b>			<b>3.00</b>
<b>TARGET</b>			<b>60</b>

**RECORD OF UNIVERISTY EXAM MARKS**

SUBJECT:C 105- BASIC ELECTRICAL ENGINEERING (103004)			UNIVERSITY MARKS			
CLASS: F.E. Mechanical						
AY/SEM:2020-21			TH (Insem+Endsem)	TW	Total	
SUBJECT TEACHER-PROF.MANJUSHA PATIL			CO1-CO6		Total	
S. No.	Roll No	Name of Student	100	25	125	
1	1467	AAKASH SURESH BHAPKAR	27	22	49	COMP
2	1551	ABHISHEK SUBHASH LOKHANDE	67	21	88	MECH
3	1553	BENGAL PRATIK KESHAV	66	22	88	MECH
4	1554	DAUNDKAR DINESH SANTOSH	67	20	87	MECH
5	1555	HIRE TANMAY SANJAY	84	22	106	MECH
6	1556	KULAL SUPRIYA SANDIP	64	21	85	MECH
7	1557	ROHAN HANUMANT SHINDE	75	22	97	MECH
8	1558	SHINDE SUMIT MANIK	74	20	94	MECH
9	1559	TAWARE KANTILAL RAMCHANDRA	58	21	79	MECH
10	1560	WALUNJ PRASAD BALASAHEB	72	20	92	MECH
11	1561	ZAWARE RUSHIKESH JALINDAR	75	22	97	MECH
AVERAGE			66	21	87	#DIV/0!
NO. OF STUDENTS SCORED MORE THAN THAN THRESHOLD MARKS			6	9	11	
TOTAL NO. OF STUDENTS			11	11	11	
CO ATTAINMENT IN %			54.55	82	100	
CO ATTAINMENT LEVEL			2	3.00	3.00	
TARGET= % AVERAGE OF TH,PR/OR & TW EXAM RESULT OF 3 PREVIOUS RESULTS			56	70		



COs	Continuous Internal Evaluation (CIE)						Semester End Evaluation (SEE)				OVERALL CO ATTAINMENT			
	ATTAINMENT OF UT	ATTAINMENT OF ASSIGN	ATTAINMENT OF MOCK ORAL	ATTAINMENT OF PRELIM EXAM	ATTAINMENT OF MCQS TEST	AVG OF CIE (A)	ATTAINMENT OF UNIVERSITY EXAM MARKS	ATTAINMENT OF UNIVERSITY TW	Average of SEE (B)	OVERALL CO ATTAINMENT = (0.3*A+0.7*B)	TARGET CIE	TARGET SEE	OVERALL TARGET	ATTAINMENT LEVEL
CO1	90.91	45.45	100.00	100.00	100.00	87.27	54.55	81.82	68.18	73.91	60.00	63.00	62.10	2.00
CO2	54.55	72.73	100.00	100.00	100.00	85.45	54.55	81.82	68.18	73.36	60.00	63.00	62.10	2.00
CO3	100.00	63.64	100.00	100.00	100.00	92.73	54.55	81.82	68.18	75.55	60.00	63.00	62.10	3.00
CO4	81.82	54.55	100.00	100.00	100.00	87.27	54.55	81.82	68.18	73.91	60.00	63.00	62.10	2.00
CO5	63.64	72.73	100.00	100.00	100.00	87.27	54.55	81.82	68.18	73.91	60.00	63.00	62.10	2.00
CO6	100.00	72.73	100.00	100.00	100.00	94.55	54.55	81.82	68.18	76.09	60.00	63.00	62.10	3.00

CO	Target vs Attainment		Gap in%	Action Plan/Remark
CO1	T	62.10	-	
	A	73.91		
CO2	T	62.10	-	
	A	73.36		
CO3	T	62.10	-	
	A	75.55		
CO4	T	62.10	-	
	A	73.91		
CO5	T	62.10	-	
	A	73.91		
CO6	T	62.10	-	
	A	76.09		

### CO PO ATTAINMENT

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	
C01	2	1	-		-	-	-	-	-	-	-	-	
C02	2	1	-	-	-	-	-	-	-	-	-	-	
C03	2	2	1	-	-	-	-	-	-	-	-	-	
C04	2	2	1	-	-	-	-	-	-	-	-	-	
C05	2	1	-	1	-	-	-	-	-	-	-	-	
C06	2	1	-	-	-	-	-	-	-	-	-	-	
<b>Average</b>	<b>2.00</b>	<b>1.33</b>	<b>1.00</b>	<b>1.00</b>	-	-	-	-	-	-	-	-	

**JSPM's Bhivarabai Sawant Institute of Technology & Research, Wagholi,  
Pune (412207)**

**Academic Year 2020-21**

## BHIVARABAI SAWANT INSTITUTE OF TECHNOLOGY AND RESEARCH, PUNE

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 Approved By AICTE, New Delhi, Govt. Of Maharashtra & Affiliated To Savitribai Phule Pune University

Accredited by NAAC with a B++ grade

### CO and PO Mapping and Attainment Process AY-2020-21

<b>SUBJECT: MOBILE COMMUNICATION</b>													
<b>CLASS: TE E&amp;TC</b>													
<b>AY/SEM: 2020-21 /SEM-VIII</b>													
<b>SUBJECT TEACHER: DR ANIL L WANARE</b>													
<b>Direct Assessment</b>													
<b>COs</b>	<b>Internal Assessment</b>								<b>External Assessment</b>				<b>Total</b>
	<b>UNIT TEST</b>		<b>Assignment</b>						<b>Mock Oral</b>	<b>UNIVERSITY THEORY (Online/Insem+Endsem)</b>	<b>UNIVERSITY PR/OR</b>	<b>UNIVERSITY TW</b>	
	<b>I</b>	<b>II</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>					
<b>CO1</b>	10		10						10	100	50	50	230
<b>CO2</b>	10			10				230					
<b>CO3</b>	10				10			230					
<b>CO4</b>		10				10		230					
<b>CO5</b>		10					10	230					
<b>CO6</b>		10					10	230					
<b>Total</b>	30	30	10	10	10	10	10	10	10	100	50	50	

<b>REORD OF UNIT TEST MARKS</b>								
<b>SUBJECT: MOBILE COMMUNICATION</b>			<b>UNIT TEST MARKS</b>					
<b>CLASS: BE ETC</b>			<b>UNIT TEST-I MARKS</b>			<b>UNIT TEST-II MARKS</b>		
<b>AY/SEM: 2020-21 /SEM- VIII</b>			<b>CO1</b>	<b>CO2</b>	<b>CO3</b>	<b>CO4</b>	<b>CO5</b>	<b>CO6</b>
<b>SUBJECT TEACHER: Dr. ANIL WANARE</b>			<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>
<b>S. No.</b>	<b>Roll No</b>	<b>Name of Student</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>
1	B150733001	AGARWAL RAHUL SATISH	7	7	7	6	6	8
2	B150733002	AKANKSHA KUMARI	6	7	8	6	8	6
3	B150733003	GAIKWAD AKASH ANKUSH	7	7	6	6	7	8
4	B150733004	BHOGADE ANKITA	8	7	7	8	7	7
5	B150733005	CHAUDHARI SNEHAL TUKARAM	8	6	8	8	8	7
6	B150733006	CHAVARE PRASAD RAJKUMAR	7	8	8	6	8	6
7	B150733007	DHANE SHITAL GANPAT	6	7	8	6	8	6
8	B150733008	DHANE AMITA SHARAD	7	7	6	6	7	8
9	B150733009	GADADE POONAM DADABHAU	8	7	7	8	7	7
10	B150733010	GADADE SHIVRAJ PRAKASH	8	6	8	8	8	7
11	B150733011	GADE SHUBHAM VASANTRAO	7	8	8	6	8	6
12	B150733012	JADHAV MADHURI GOVIND	6	6	8	6	7	5

13	B150733013	JAGTAP GANESH KESHAV	6	7	8	6	8	6
14	B150733014	KACHHAWA KAVITA RAJENDRA	7	7	6	6	7	8
15	B150733015	KAGANE NAYAN ANNA	8	7	7	8	7	7
16	B150733016	KAKADE PRANJALI DAYANAND	8	6	8	8	8	7
17	B150733017	KAWADE SHUBHAM PANDURANG	7	8	8	6	8	6
18	B150733018	KHADE SACHIN ASHOK	6	6	8	6	7	8
19	B150733019	KHAIRE SAYALI PRAKASH	5	7	7	7	6	5
20	B150733020	KULKARNI PUJA INDRAJEET	6	6	8	6	7	5
21	B150733021	LAVARE SHAKUNTALA DATTATRAYA	5	7	7	7	6	8
22	B150733022	MAHAJAN GAYATRI SHASHIKANT	8	8	7	6	7	7
23	B150733023	MATEKAR SHILA SHARAD	7	7	8	7	8	5
24	B150733024	MUJAWAR AKRAM HASANSAB	7	6	7	5	8	7
25	B150733025	NEGWADE KALPANA BIBISHAN	8	8	7	5	8	8
26	B150733026	PALLE PRAJAKTA RAVI	6	8	8	6	8	8
27	B150733027	PATIL PRANVI VIJAY	6	7	6	8	8	8
28	B150733028	PURANIK ANEESH ATUL	6	8	6	6	7	7
29	B150733029	RANSING DIPALI BAPU	7	5	8	7	7	3

30	B150733030	RASAL SHIVKANYA ANIL	7	8	7	7	8	6
31	B150733031	SAVALE ABHIJIT RAJENDRA	8	6	6	7	7	8
32	B150733032	SHINDE ANKITA PRAVIN	7	7	8	7	8	7
33	B150733034	SOLEPATIL ADITI AVINASH	8	7	7	6	8	7
34	B150733035	TANPURE MAHESH PRAKASH	7	7	8	6	6	8
35	B150733036	THORAT POOJA ARJUN	6	6	6	6	6	5
36	B150733037	VETAL VIJAYA DATTATRAYA	6	7	8	8	8	8
37	B150733038	BHALKE VIKAS POPAT	6	5	7	7	5	7
38	B150733039	ZARE VIJAY GANGADHAR	8	6	6	7	8	6
<b>AVERAGE MARKS</b>			<b>6.87</b>	<b>6.84</b>	<b>7.26</b>	<b>6.61</b>	<b>7.32</b>	<b>6.74</b>
<b>NO. OF STUDENTS SCORED MORE THAN 60% MARKS</b>			<b>36</b>	<b>36</b>	<b>38</b>	<b>36</b>	<b>37</b>	<b>32</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>38</b>					
<b>% ATTAINMENT LEVEL</b>			<b>94.74</b>	<b>94.74</b>	<b>100.00</b>	<b>94.74</b>	<b>97.37</b>	<b>84.21</b>
<b>CO ATTAINMENT</b>			<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>

<b>REORD OF ASSIGNMENT MARKS</b>	
<b>SUBJECT: MOBILE COMMUNICATION</b>	<b>ASSIGNMENT MARKS</b>
<b>CLASS: BE ETC</b>	

AY/SEM: 2020-21 /SEM- VIII			A1	A2	A3	A4	A5	A6	Total
SUBJECT TEACHER: Dr. ANIL WANARE			CO1	CO2	CO3	CO4	CO5	CO6	
S. No.	Roll No	Name of Student	10	10	10	10	10	10	
1	B150733001	AGARWAL RAHUL SATISH	7	6	6	7	5	5	36
2	B150733002	AKANKSHA KUMARI	9	8	6	7	7	7	44
3	B150733003	GAIKWAD AKASH ANKUSH	8	6	7	7	8	8	44
4	B150733004	BHOGADE ANKITA	7	8	7	7	8	8	45
5	B150733005	CHAUDHARI SNEHAL TUKARAM	6	8	6	6	8	8	42
6	B150733006	CHAVARE PRASAD RAJKUMAR	8	7	7	8	7	7	44
7	B150733007	DHANE SHITAL GANPAT	7	8	7	7	8	8	45
8	B150733008	DHANE AMITA SHARAD	6	8	6	6	8	8	42
9	B150733009	GADADE POONAM DADABHAU	8	7	7	8	7	7	44
10	B150733010	GADADE SHIVRAJ PRAKASH	7	7	6	7	6	6	39
11	B150733011	GADE SHUBHAM VASANTRAO	7	6	6	5	8	8	40
12	B150733012	JADHAV MADHURI GOVIND	7	8	7	7	7	7	43
13	B150733013	JAGTAP GANESH KESHAV	6	7	7	7	8	8	43
14	B150733014	KACHHAWA KAVITA RAJENDRA	7	6	7	6	7	7	40
15	B150733015	KAGANE NAYAN ANNA	8	7	6	8	6	6	41
16	B150733016	KAKADE PRANJALI DAYANAND	5	6	7	7	8	8	41
17	B150733017	KAWADE SHUBHAM PANDURANG	8	8	6	6	7	7	42
18	B150733018	KHADE SACHIN ASHOK	7	7	6	8	7	7	42
19	B150733019	KHAIRE SAYALI PRAKASH	8	7	6	5	6	6	38
20	B150733020	KULKARNI PUJA INDRAJEET	7	9	6	7	8	8	45
21	B150733021	LAVARE SHAKUNTALA DATTATRAYA	7	8	7	8	7	7	44
22	B150733022	MAHAJAN GAYATRI SHASHIKANT	8	8	7	7	7	7	44



23	B150733023	MATEKAR SHILA SHARAD	7	6	5	7	6	6	37
24	B150733024	MUJAWAR AKRAM HASANSAB	8	7	6	8	7	7	43
25	B150733025	NEGWADE KALPANA BIBISHAN	8	7	7	7	8	8	45
26	B150733026	PALLE PRAJAKTA RAVI	8	8	7	6	7	7	43
27	B150733027	PATIL PRANVI VIJAY	7	7	8	8	7	7	44
28	B150733028	PURANIK ANEESH ATUL	8	7	6	5	6	6	38
29	B150733029	RANSING DIPALI BAPU	7	9	9	7	8	8	48
30	B150733030	RASAL SHIVKANYA ANIL	7	9	9	7	8	8	48
31	B150733031	SAVALE ABHIJIT RAJENDRA	6	8	6	6	8	8	42
32	B150733032	SHINDE ANKITA PRAVIN	8	7	7	8	7	7	44
33	B150733034	SOLEPATIL ADITI AVINASH	7	8	7	7	8	8	45
34	B150733035	TANPURE MAHESH PRAKASH	6	8	6	6	8	8	42
35	B150733036	THORAT POOJA ARJUN	8	7	7	8	7	7	44
36	B150733037	VETAL VIJAYA DATTATRAYA	7	7	6	7	6	6	39
37	B150733038	BHALKE VIKAS POPAT	7	6	6	5	8	8	40
38	B150733039	ZARE VIJAY GANGADHAR	7	8	7	7	7	7	43
<b>AVERAGE</b>			<b>7.17</b>	<b>7.22</b>	<b>6.43</b>	<b>6.87</b>	<b>7.13</b>	<b>7.13</b>	<b>41.96</b>
<b>NO. OF STUDENTS SCORED MORE THAN 40% MARKS</b>			<b>37</b>	<b>38</b>	<b>37</b>	<b>34</b>	<b>37</b>	<b>37</b>	
<b>TOTAL NO. OF STUDENTS</b>			<b>38</b>						
<b>% ATTAINMENT LEVEL</b>			<b>97.37</b>	<b>100.00</b>	<b>97.37</b>	<b>89.47</b>	<b>97.37</b>	<b>97.37</b>	
<b>CO ATTAINMENT</b>			<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	

<b>MOCK ORAL TEST</b>			
<b>SUBJECT: MOBILE COMMUNICATION</b>			<b>MOT</b>
<b>CLASS: BE ETC</b>			
<b>AY/SEM: 2020-21 /SEM- VIII</b>			<b>MARKS</b>
<b>SUBJECT TEACHER: Dr. ANIL WANARE</b>			<b>CO1-CO6</b>
<b>S. No.</b>	<b>Roll No</b>	<b>Name of Student</b>	<b>10</b>
1	B150733001	AGARWAL RAHUL SATISH	9
2	B150733002	AKANKSHA KUMARI	8
3	B150733003	GAIKWAD AKASH ANKUSH	7
4	B150733004	BHOGADE ANKITA	7
5	B150733005	CHAUDHARI SNEHAL TUKARAM	6
6	B150733006	CHAVARE PRASAD RAJKUMAR	6
7	B150733007	DHANE SHITAL GANPAT	6
8	B150733008	DHANE AMITA SHARAD	6
9	B150733009	GADADE POONAM DADABHAU	7

10	B150733010	GADADE SHIVRAJ PRAKASH	8
11	B150733011	GADE SHUBHAM VASANTRAO	8
12	B150733012	JADHAV MADHURI GOVIND	7
13	B150733013	JAGTAP GANESH KESHAV	6
14	B150733014	KACHHAWA KAVITA RAJENDRA	7
15	B150733015	KAGANE NAYAN ANNA	7
16	B150733016	KAKADE PRANJALI DAYANAND	7
17	B150733017	KAWADE SHUBHAM PANDURANG	8
18	B150733018	KHADE SACHIN ASHOK	6
19	B150733019	KHAIRE SAYALI PRAKASH	7
20	B150733020	KULKARNI PUJA INDRAJEET	8
21	B150733021	LAVARE SHAKUNTALA DATTATRAYA	6
22	B150733022	MAHAJAN GAYATRI SHASHIKANT	8
23	B150733023	MATEKAR SHILA SHARAD	7

24	B150733024	MUJAWAR AKRAM HASANSAB	8
25	B150733025	NEGWADE KALPANA BIBISHAN	7
26	B150733026	PALLE PRAJAKTA RAVI	7
27	B150733027	PATIL PRANVI VIJAY	7
28	B150733028	PURANIK ANEESH ATUL	7
29	B150733029	RANSING DIPALI BAPU	7
30	B150733030	RASAL SHIVKANYA ANIL	6
31	B150733031	SAVALE ABHIJIT RAJENDRA	7
32	B150733032	SHINDE ANKITA PRAVIN	8
33	B150733034	SOLEPATIL ADITI AVINASH	6
34	B150733035	TANPURE MAHESH PRAKASH	7
35	B150733036	THORAT POOJA ARJUN	8
36	B150733037	VETAL VIJAYA DATTATRAYA	8
37	B150733038	BHALKE VIKAS POPAT	7
38	B150733039	ZARE VIJAY GANGADHAR	7

<b>AVERAGE</b>	<b>7.04</b>
<b>NO. OF STUDENTS SCORED MORE THAN 60% MARKS</b>	<b>38</b>
<b>TOTAL NO. OF STUDENTS</b>	<b>38</b>
<b>% ATTAINMENT LEVEL</b>	<b>100.00</b>
<b>CO ATTAINMENT</b>	<b>3.00</b>

<b>RECORD OF UNIVERISTY EXAM MARKS</b>						
<b>SUBJECT: MOBILE COMMUNICATION</b>			<b>UNIVERSITY MARKS</b>			
<b>CLASS: BE ETC</b>			<b>TH (Online/ Insem+Endsem)</b>	<b>PR/OR</b>	<b>TW</b>	<b>Total</b>
<b>AY/SEM: 2020-21 /SEM- VIII</b>			<b>CO1-CO6</b>			
<b>SUBJECT TEACHER: Dr. ANIL WANARE</b>			<b>100</b>	<b>50</b>	<b>50</b>	<b>200</b>
<b>S. No.</b>	<b>Roll No</b>	<b>Name of Student</b>				
1	B150733001	AGARWAL RAHUL SATISH	58	41	44	143
2	B150733002	AKANKSHA KUMARI	61	36	40	137
3	B150733003	GAIKWAD AKASH ANKUSH	68	38	42	148
4	B150733004	BHOGADE ANKITA	66	37	40	143
5	B150733005	CHAUDHARI SNEHAL TUKARAM	73	42	44	159
6	B150733006	CHAVARE PRASAD RAJKUMAR	59	40	43	142
7	B150733007	DHANE SHITAL GANPAT	62	40	42	144
8	B150733008	DHANE AMITA SHARAD	69	45	46	160
9	B150733009	GADADE POONAM DADABHAU	64	40	44	148
10	B150733010	GADADE SHIVRAJ PRAKASH	57	36	39	132
11	B150733011	GADE SHUBHAM VASANTRAO	35	35	36	106
12	B150733012	JADHAV MADHURI GOVIND	56	37	38	131
13	B150733013	JAGTAP GANESH KESHAV	42	36	38	116
14	B150733014	KACHHAWA KAVITA RAJENDRA	64	43	46	153
15	B150733015	KAGANE NAYAN ANNA	71	46	47	164
16	B150733016	KAKADE PRANJALI DAYANAND	AB	AB	36	36
17	B150733017	KAWADE SHUBHAM PANDURANG	42	36	38	116
18	B150733018	KHADE SACHIN ASHOK	53	40	43	136
19	B150733019	KHAIRE SAYALI PRAKASH	71	40	43	154
20	B150733020	KULKARNI PUJA INDRAJEET	62	40	44	146

JSPM's Bhivarabai Sawant Institute of Technology & Research, Wagholi, Pune

21	B150733021	LAVARE SHAKUNTALA DATTATRAYA	68	45	46	159
22	B150733022	MAHAJAN GAYATRI SHASHIKANT	53	42	45	140
23	B150733023	MATEKAR SHILA SHARAD	82	44	45	171
24	B150733024	MUJAWAR AKRAM HASANSAB	66	45	46	157
25	B150733025	NEGWADE KALPANA BIBISHAN	67	45	47	159
26	B150733026	PALLE PRAJAKTA RAVI	58	44	45	147
27	B150733027	PATIL PRANVI VIJAY	43	36	37	116
28	B150733028	PURANIK ANEESH ATUL	62	39	43	144
29	B150733029	RANSING DIPALI BAPU	56	39	43	138
30	B150733030	RASAL SHIVKANYA ANIL	67	46	47	160
31	B150733031	SAVALE ABHIJIT RAJENDRA	49	38	40	127
32	B150733032	SHINDE ANKITA PRAVIN	54	36	38	128
33	B150733034	SOLEPATIL ADITI AVINASH	48	46	46	140
34	B150733035	TANPURE MAHESH PRAKASH	28	36	38	102
35	B150733036	THORAT POOJA ARJUN	50	36	37	123
36	B150733037	VETAL VIJAYA DATTATRAYA	59	38	39	136
37	B150733038	BHALKE VIKAS POPAT	56	38	39	133
38	B150733039	ZARE VIJAY GANGADHAR	69	39	41	149
<b>AVERAGE</b>			<b>60.73</b>	<b>39.95</b>	<b>42.13</b>	<b>138.43</b>
<b>NO. STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>			<b>35</b>	<b>37</b>	<b>38</b>	
<b>TOTAL NO. OF STUDENTS</b>			<b>38</b>	<b>38</b>	<b>38</b>	
<b>% ATTAINMENT LEVEL</b>			<b>92.11</b>	<b>97.37</b>	<b>100.00</b>	
<b>CO ATTAINMENT</b>			<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	

<b>SUBJECT: MOBILE COMMUNICATION</b>									
<b>CLASS: BE ETC</b>									
<b>AY/SEM: 2020-21 /SEM- VIII</b>									
<b>SUBJECT TEACHER: DR ANIL WANARE</b>									
<b>Direct Assessment</b>									
COs	Internal Assessment				External Assessment				OVERALL CO ATTAINMENT = (0.3*A+0.7*B)
	ATTAINMENT OF UT	ATTAINMENT OF ASSGN	ATTAINMENT OF MOCK ORAL	AVERAGE OF CO ATTAINMENT (A)	ATTAINMENT OF UNIVERSITY EXAM MARKS	ATTAINMENT OF UNIVERSITY PR	ATTAINMENT OF UNIVERSITY TW	Average (B)	
CO1	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
CO2	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
CO3	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
CO4	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
CO5	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
CO6	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
					<b>Average</b>				<b>3.00</b>



<b>SUBJECT: MOBILE COMMUNICATION</b>
<b>CLASS: BE</b>
<b>AY/SEM: 2020-21 /SEM-VIII</b>
<b>SUBJECT TEACHER: DR ANIL WANARE</b>

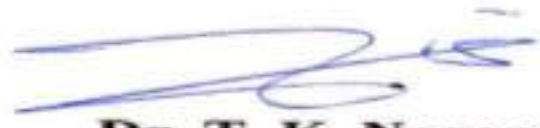
CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
404189.1	3	3	-	3	-	-	2	2	-	2	3	3
404189.2	3	3	3	3	3	-	-	-	-	-	-	-
404189.3	3	3		2	2	3	3	2	-	-	-	-
404189.4	3	-	-	2	-	-	-	-	-	3	3	3
404189.5	3	-	-	3	-	-	-	-	2	3	3	3
404189.6	3	3	-	3	2	-	-	-	-	2	3	3
<b>Average</b>	3	3	3	2.7	2.4	3	2.5	2	2	2.5	3	3

<b>CO CODE</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
404189.1	3	2	2
404189.2	3	3	-
404189.3	3	3	3
404189.4	3	-	-
404189.5	3	-	-
404189.6	2	3	3
<b>Average</b>	2.9	2.75	2.66

<b>POs &amp; PSOs Attainment</b>
<b>PO or PSO=(Weighted Average value of PO*CO Attainment Average)/3</b>
<b>Weighted Average is average matrix of CO PO PSO Mapping</b>

<b>RESULT OF PO &amp; PSO ATAINMENT</b>															
POs	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2	PSO 1	PSO 2	PSO3
WEIGHTED AVERAGE	3	3	3	2.7	2.4	3	2.5	2	2	2.5	3	3	2.9	2.75	2.66
ATTAINMENT LEVEL	3.00	3.00	3.00	2.67	2.36	3.00	2.50	2.00	2.00	2.50	3.00	3.00	2.90	2.75	2.66

  
**Dr. Y.S. Angal**  
**H.O.D.(E&TC)**

  
**Dr. T. K. Nagaraj**  
**Principal**  
**S.P.M.'S Bhivarabai Sawant Institute of**  
**Technology & Research**  
**Wagholi, Pune- 412207**

<b>SUBJECT: WORKSHOP PRACTICES/C109</b>										
<b>CLASS: FE</b>										
<b>AY/SEM: 2021-22/SEM-I</b>										
<b>SUBJECT TEACHER :</b>										
<b>Direct Assessment</b>										
COs	Assignment					Mock Oral	External Assessment			Total
							UNIVERSITY THEORY (Endsem)	UNIVERSITY PR/OR	UNIVERSITY TW	
	1	2	3	4	5					
CO1	NA					50	NA	25	75	
CO2		NA			75					
CO3			NA		75					
CO4				NA	75					
<b>Total</b>	NA	NA	NA	NA	NA	50	NA	25		



**HOD**

General Science Department  
 J.S.P.M.'s Bhivarabai Sawant Institute of  
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 Wagholi Pune 412 207



RECORD OF MOCK ORAL			
SUBJECT: WORKSHOP PRACTICES/C109			MOCK ORAL MARKS
CLASS: FE			
AY/SEM: 2021-22/SEM-I			
SUBJECT TEACHER :			CO1-CO4
S. No.	Roll No	Name of Student	50
66	1554	INGALE BADAL SUNIL	34
67	1555	RAKTATE TEJAS RAJENDRA	42
68	1556	SALAVE VIRAJ BHIVAJI	42
69	1557	SHINDE GANESH BHASKAR	45
AVERAGE			41.00
NO. OF STUDENTS SCORED MORE THAN THAN THRESHOLD MARKS (70%)= $0.70 \times 50 = 35$			3
TOTAL NO. OF STUDENTS			4
CO ATTAINMENT IN %			75.00
CO ATTAINMENT LEVEL			3.00
TARGET			70

PLEASE PUT REMARKS FOR "GAP IF ANY"

CO	Target vs Attainment		Gap in%
CO1-CO6	T	70.00	-
	A	75.00	



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J.S.P.M.'s Bhivarabai Sawant Institute of  
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Wagholi Pune 412 207



RECORD OF UNIVERISTY EXAM MARKS

SUBJECT: WORKSHOP PRACTICES/C109			UNIVERSITY MARKS		
CLASS: FE					
AY/SEM: 2021-22/SEM-I			TH (Insem+Endsem)	TW	Total
SUBJECT TEACHER :			CO1-CO4		
S. No.	Roll No	Name of Student		25	
1	1554	INGALE BADAL SUNIL		21	
2	1555	RAKTATE TEJAS RAJENDRA		21	
3	1556	SALAVE VIRAJ BHIVAJI		22	
4	1557	SHINDE GANESH BHASKAR		21	
AVERAGE				21	
NO. OF STUDENTS SCORED MORE THAN THAN THRESHOLD MARKS				4	
TOTAL NO. OF STUDENTS				4	
CO ATTAINMENT IN %				100	
CO ATTAINMENT LEVEL				3.00	
TARGET				79.3	

PLEASE PUT REMARKS FOR "GAP IF ANY"

CO	Target vs Attainment		Gap in%	Action Plan/Re
TW	T	79.30		
	A	100.00		



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**SUBJECT : WORKSHOP**

**AY/SEM: 2021-22/SEM-I**

**Direct Assessment**

COs	Internal Assessment			External Assessment	OVERALL CO ATTAINMENT = (0.3*A+0.7*B)	Target CIE	Target SEE	Overall Target
	ATTAINMENT OF ASSGN	ATTAINMENT OF MOCK ORAL	AVERAGE OF CO ATTAINMENT (A)	ATTAINMENT OF UNIVERSITY EXAM MARKS (B)				
CO1	-	75.00	75.00	100.00	92.50	70	79.3	76.51
CO2	-	75.00	75.00	100.00	92.50	70	79.3	76.51
CO3	-	75.00	75.00	100.00	92.50	70	79.3	76.51
CO4	-	75.00	75.00	100.00	92.50	70	79.3	76.51
				<b>Average</b>	<b>92.50</b>			

PLEASE PUT REMARKS FOR "GAP IF ANY"

CO	Target vs Attainment		Gap in%	Action Plan/Remark
CO1	T	76.51	-	
	A	92.50		
CO2	T	76.51	-	
	A	92.50		
CO3	T	76.51	-	
	A	92.50		
CO4	T	76.51	-	
	A	92.50		



**HOD**

General Science Department  
 J.S.P.M.'s Bhivarabai Sawant Institute of  
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 Wagholi Pune 412 207

**JSPM's Bhivarabai Sawant Institute of Technology & Research, Wagholi,  
Pune (412207)**

**Academic Year 2021-22**



<b>SUBJECT: OBJECT ORIENTED PROGRAMMING /C 214</b>
<b>CLASS: SE(E&amp;TC)</b>
<b>AY/SEM: 2021-22 /SEM-IV</b>
<b>SUBJECT TEACHER: YOGESH S. BAHENDWAR</b>

### Direct Assessment

COs	Internal Assessment								External Assessment			Total	
	UNIT TEST		Assignment						Mock Oral	UNIVERSITY THEORY (Online/Insem+ Endsem)	UNIVERSITY PR/OR		UNIVERSITY TW
	I	II	1	2	3	4	5	6					
CO1	10		10						10	100	50	0	180
CO2	10			10									
CO3		10			10								
CO4		10				10							
CO5		10					10						
CO6		10						10					
<b>Total</b>	20	40	10	10	10	10	10	10	10	100	50	0	

## REORD OF UNIT TEST MARKS

SUBJECT: OBJECT ORIENTED PROGRAMMING /C 211			UNIT TEST MARKS					
CLASS: SE(E&TC)			UNIT TEST MARKS					
AY/SEM: 2021-22 /SEM-IV			UNIT TEST-I MARKS		UNIT TEST-II MARKS			
SUBJECT TEACHER: YOGESH S. BAHENDWAR			CO1	CO2	CO3	CO4	CO5	CO6
Roll no	Exam Seat No	Name of Student	10	10	10	10	10	10
2201	S190733001	AADHAV SAKET DATTATARY	6	6	7	6	6	6
2202	S190733002	TENGALE ADESH LAXMAN	7	7	8	8	8	7
2203	S190733003	AEKAGRA DHAMANI	7	7	8	7	8	8
2204	S190733004	DAHIWAL AJINKYA SUNIL	8	7	8	8	8	8
2205	S190733005	ATHARVA JAIRAJ KADAM	5	5	6	5	6	6
2206	S190733006	ATTAR NAMEERA MOHOMAD RAFIK	6	7	7	7	7	7
2207	S190733007	SHARADHHA BADE	7	7	7	8	6	8
2208	S190733008	BHOITE ABHIJIT SHAHAJI	8	6	8	7	6	6
2209	S190733009	BHOSALE RUSHIKESH ARUN	8	6	5	6	6	8
2210	S190733010	BORHADE SHIVAM PANDURANG	8	8	8	8	8	8
2211	S190733011	BORSE ANSHULIKA YUVRAJ	8	8	8	8	8	6
2212	S190733012	CHAVHAN DNYANESHWAR SHARAD	6	6	8	5	6	6
2213	S190733013	DAPHAL CHETAN SHAHAJI	9	9	9	6	9	9
2214	S190733014	DESHPANDE CHAITRA	9	9	8	6	9	9
2215	S190733016	TAMBE EKTA DINESH	8	8	8	7	8	8
2216	S190733017	FIGREDO ISPURLEEN PETER	5	5	6	5	5	5
2217	S190733018	GADEKAR JAYAWANT BHIMRAO	6	5	5	5	6	6
2218	S190733019	GAT SHEETAL BABAJI	7	8	8	8	8	8
2219	S190733020	GOLE AISHWARYA SUHAS	8	8	8	8	8	8
2220	S190733021	HARGUDE AISHWARYA ANIL	9	9	9	9	9	9
2221	S190733022	JADE MEGHSHAM SANJAY	6	6	7	7	7	8
2222	S190733023	JAGTAP AJAY SHESHERAO	6	6	6	6	7	6
2223	S190733025	JOSHI BHARGAVI DINESH	7	6	7	7	8	8
2224	S190733026	KAND AKANSHA RAMDAS	6	6	4	7	5	5
2225	S190733027	KAND SIDDHI VIKAS	6	5	6	6	5	6
2226	S190733028	KEKAN PRAJAKTA PANDURANG	8	8	8	6	8	8
2227	S190733029	GARDARE KIRAN GANESH	8	8	8	6	8	7
2228	S190733030	KOLI PRADEEP DEEPAK	8	8	9	6	8	8

2229	S190733032	KUWAR SAKSHI JAYESH	5	5	2	6	5	9
2230	S190733033	LAGAD PRATIK DHONDIBA	6	6	6	6	7	8
2231	S190733034	LANKE ADITYA SANJAY	6	7	6	5	6	6
2232	S190733035	LONDHE PRUTHVIRAJ SURESH	4	5	5	5	4	5
2233	S190733036	MANE ABHAY SUDHAKAR	2	8	8	5	7	7
2234	S190733037	MANE NIKITA NILESH	9	8	8	9	8	9
2235	S190733038	MANE RUTUJA KAILAS	9	9	9	9	9	9
2236	S190733039	MATKAR AMAR CHATRABHUJ	6	8	8	8	8	8
2237	S190733040	SUPRIYA SUNIL MOHITE	6	7	7	5	7	7
2238	S190733041	NARUTE HARSHAD DHANAJI	7	4	7	7	7	6
2239	S190733042	NARWADE KUNAL DILIP	6	5	7	8	6	7
2240	S190733043	PATIL PRIYANKA BAPURAO	7	4	7	8	8	7
2241	S190733044	PATIL VISHWATEJ DATTATRAYA	6	7	6	8	6	7
2242	S190733046	PATOLE SHUBHAM	AB	AB	AB	AB	AB	AB
2243	S190733047	SHUBHAM ASHOK PAWAR	7	8	8	7	7	7
2244	S190733048	PETKAR SAYALI DHANRAJ	4	6	8	7	7	6
2245	S190733049	RANDIVE KISHORI RAMDAS	7	6	7	6	8	8
2246	S190733050	RAUT DNYANESHWARI SHIVSHANKAR	7	7	6	7	6	8
2247	S190733051	SHITAL SANJAY RAVLE	7	6	7	5	8	7
2248	S190733052	SAKHARE SWAPNIL TANAJI	6	5	8	6	0	7
2249	S190733053	SALUNKHE JANHAVI SUBHASH	6	6	7	6	7	8
2250	S190733054	KHARATE SATYAM MACHINDRA	7	6	8	6	7	7
2251	S190733055	SAWANT SNEHA BALASO	8	8	7	6	8	8
2252	S190733056	SAWARGAVE RAJNANDINI DIPAK	6	5	8	5	0	7
2253	S190733057	SHAIKH ARMAN SAMEER	6	6	7	6	7	6
2254	S190733058	SHAIKH PARVEJ YASIN	7	6	8	6	7	7
2255	S190733059	SHAIKH UJEF SAMAD	8	8	7	8	8	8
2256	S190733060	SHAMKUWAR RAHUL RAJENDRA	6	5	8	5	0	7
2257	S190733061	SHELKE VAIBHAV TUKARAM	6	6	7	6	7	6
2258	S190733062	SHINDE ABHAY PRAMOD	7	6	8	6	7	7
2259	S190733063	GAWALI SHUBHAM SUNIL	8	8	7	6	8	8
2260	S190733064	SONAWANE KALPESH YUVRAJ	6	5	8	5	8	8
2261	S190733065	SONTAKKE DIVYA DNYANESHWAR	8	6	8	6	8	8
2262	S190733066	TAKLE ANJLI BASVRAJ	7	6	8	5	7	7
2263	S190733067	TAKLE ASHLESHA BASVRAJ	8	8	7	7	8	8
2264	S190733068	TAMHANE VAISHNAVI VINOD	6	5	8	5	7	7
2265	S190733069	TAYADE DEVENDRA AJAY	6	6	7	5	7	6
2266	S190733070	TAYE PRATIK RAMESH	7	6	8	6	7	7

2267	S190733071	THAKARE VAISHNAVI JAGADEO	8	8	7	6	8	8
2268	S190733072	THAKUR GAURAV RAM	9	9	9	9	9	9
2269	S190733073	DHAKE TILAKCHAND UMAKANT	8	8	8	8	8	8
2270	S190733074	TUPSOUNDARE RAJNANDINI RAJKUMAR	9	8	9	9	8	9
2271	S190733075	VADAK KOMAL VIJENDRA	9	9	9	9	9	9
2272	S190733076	PATIL VYANKATESH KAMLESH	6	5	8	6	7	7
2273	S190733077	WAGHMODE MAHESH NAMDEV	9	8	8	8	8	8
2274	S190733078	SONAVANE AMRUTA ASHOK	7	6	8	7	7	7
2275	S190733079	KHATAVAKAR PRIYANKA NAGNATH	8	8	7	7	8	8
2276	S190733080	LONDHE ANKITA DATTATRAY	8	8	8	8	8	8
2277	S190733081	MULANI MUSTKIN MAHIBUB	7	7	7	5	7	7
2278	S190733082	PATIL YUVRAJ RAJARAM	5	6	6	5	6	5
<b>AVERAGE MARKS</b>			6.9220779	6.714286	7.324675	6.5844156	6.96104	7.311688312
<b>NO. OF STUDENTS SCORED MORE THAN 60% MARKS</b>			<b>70</b>	<b>62</b>	<b>72</b>	<b>60</b>	<b>69</b>	<b>73</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>77</b>					
<b>% ATTAINMENT LEVEL</b>			<b>90.91</b>	<b>80.52</b>	<b>93.51</b>	<b>77.92</b>	<b>89.61</b>	<b>94.81</b>
<b>CO ATTAINMENT</b>			<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>2.00</b>	<b>3.00</b>	<b>3.00</b>

## REORD OF ASSIGNMENT MARKS

SUBJECT: OBJECT ORIENTED PROGRAMMING /C 211			ASSIGNMENT MARKS						
CLASS: SE(E&TC)									
AY/SEM: 2021-22 /SEM-IV			A1	A2	A3	A4	A5	A6	Total
SUBJECT TEACHER: YOGESH S. BAHENDWAR			CO1	CO2	CO3	CO4	CO5	CO6	
S. No.	Exam Seat no	Name of Student	10	10	10	10	10	10	
2201	S190733001	AADHAV SAKET DATTATARY	6	6	7	6	5	6	36
2202	S190733002	TENGALE ADESH LAXMAN	7	8	8	8	7	7	45
2203	S190733003	AEKAGRA DHAMANI	8	8	8	7	7	7	45
2204	S190733004	DAHIWAL AJINKYA SUNIL	8	8	8	8	7	8	47
2205	S190733005	ATHARVA JAIRAJ KADAM	6	6	6	5	5	5	33
2206	S190733006	ATTAR NAMEERA MOHOMAD RAFIK	7	7	7	7	7	6	41
2207	S190733007	SHARADHHA BADE	8	6	7	8	7	7	43
2208	S190733008	BHOITE ABHIJIT SHAHAJI	6	6	8	7	6	8	41
2209	S190733009	BHOSALE RUSHIKESH ARUN	8	6	5	6	6	8	39
2210	S190733010	BORHADE SHIVAM PANDURANG	8	8	8	8	8	8	48
2211	S190733011	BORSE ANSHULIKA YUVRAJ	6	8	8	8	8	8	46
2212	S190733012	CHAVHAN DNYANESHWAR SHARAD	6	6	8	5	6	6	37
2213	S190733013	DAPHAL CHETAN SHAHAJI	9	9	9	6	9	9	51
2214	S190733014	DESHPANDE CHAITRA	9	9	8	6	9	9	50
2215	S190733016	TAMBE EKTA DINESH	8	8	8	7	8	8	47
2216	S190733017	FIGREDO ISPURLEEN PETER	5	5	6	5	5	5	31
2217	S190733018	GADEKAR JAYAWANT BHIMRAO	6	6	5	5	5	6	33
2218	S190733019	GAT SHEETAL BABAJI	8	8	8	8	8	7	47
2219	S190733020	GOLE AISHWARYA SUHAS	8	8	8	8	8	8	48
2220	S190733021	HARGUDE AISHWARYA ANIL	9	9	9	9	9	9	54
2221	S190733022	JADE MEGHSHAM SANJAY	8	7	7	7	6	6	41
2222	S190733023	JAGTAP AJAY SHESHERAO	6	7	6	6	6	6	37
2223	S190733025	JOSHI BHARGAVI DINESH	8	8	7	7	6	7	43
2224	S190733026	KAND AKANSHA RAMDAS	5	5	4	7	6	6	33
2225	S190733027	KAND SIDDHI VIKAS	6	5	6	6	5	6	34
2226	S190733028	KEKAN PRAJAKTA PANDURANG	8	8	8	6	8	8	46
2227	S190733029	GARDARE KIRAN GANESH	7	8	8	6	8	8	45
2228	S190733030	KOLI PRADEEP DEEPAK	8	8	9	6	8	8	47
2229	S190733032	KUWAR SAKSHI JAYESH	9	5	2	6	5	5	32
2230	S190733033	LAGAD PRATIK DHONDIBA	8	7	6	6	6	6	39

2231	S190733034	LANKE ADITYA SANJAY	6	6	6	5	7	6	36
2232	S190733035	LONDHE PRUTHVIRAJ SURESH	5	4	5	5	5	4	28
2233	S190733036	MANE ABHAY SUDHAKAR	7	7	8	5	8	2	37
2234	S190733037	MANE NIKITA NILESH	9	8	8	9	8	9	51
2235	S190733038	MANE RUTUJA KAILAS	9	9	9	9	9	9	54
2236	S190733039	MATKAR AMAR CHATRABHUJ	8	8	8	8	8	6	46
2237	S190733040	SUPRIYA SUNIL MOHITE	7	7	7	5	7	6	39
2238	S190733041	NARUTE HARSHAD DHANAJI	6	7	7	7	4	7	38
2239	S190733042	NARWADE KUNAL DILIP	7	6	7	8	5	6	39
2240	S190733043	PATIL PRIYANKA BAPURAO	7	8	7	8	4	7	41
2241	S190733044	PATIL VISHWATEJ DATTATRAYA	7	6	6	8	7	6	40
2242	S190733046	PATOLE SHUBHAM	AB	AB	AB	AB	AB	AB	AB
2243	S190733047	SHUBHAM ASHOK PAWAR	7	7	8	7	8	7	44
2244	S190733048	PETKAR SAYALI DHANRAJ	6	7	8	7	6	4	38
2245	S190733049	RANDIVE KISHORI RAMDAS	8	8	7	6	6	7	42
2246	S190733050	RAUT DNYANESHWARI SHIVSHANKAR	8	6	6	7	7	7	41
2247	S190733051	SHITAL SANJAY RAVLE	7	8	7	5	6	7	40
2248	S190733052	SAKHARE SWAPNIL TANAJI	7	0	8	6	5	6	32
2249	S190733053	SALUNKHE JANHAVI SUBHASH	8	7	7	6	6	6	40
2250	S190733054	KHARATE SATYAM MACHINDRA	7	7	8	6	6	7	41
2251	S190733055	SAWANT SNEHA BALASO	8	8	7	6	8	8	45
2252	S190733056	SAWARGAVE RAJNANDINI DIPAK	7	0	8	5	5	6	31
2253	S190733057	SHAIKH ARMAN SAMEER	6	7	7	6	6	6	38
2254	S190733058	SHAIKH PARVEJ YASIN	7	7	8	6	6	7	41
2255	S190733059	SHAIKH UJEF SAMAD	8	8	7	8	8	8	47
2256	S190733060	SHAMKUWAR RAHUL RAJENDRA	7	0	8	5	5	6	31
2257	S190733061	SHELKE VAIBHAV TUKARAM	6	7	7	6	6	6	38
2258	S190733062	SHINDE ABHAY PRAMOD	7	7	8	6	6	7	41
2259	S190733063	GAWALI SHUBHAM SUNIL	8	8	7	6	8	8	45
2260	S190733064	SONAWANE KALPESH YUVRAJ	8	8	8	5	5	6	40
2261	S190733065	SONTAKKE DIVYA DNYANESHWAR	8	8	8	6	6	8	44
2262	S190733066	TAKLE ANJLI BASVRAJ	7	7	8	5	6	7	40
2263	S190733067	TAKLE ASHLESHA BASVRAJ	8	8	7	7	8	8	46
2264	S190733068	TAMHANE VAISHNAVI VINOD	7	7	8	5	5	6	38
2265	S190733069	TAYADE DEVENDRA AJAY	6	7	7	5	6	6	37
2266	S190733070	TAYE PRATIK RAMESH	7	7	8	6	6	7	41
2267	S190733071	THAKARE VAISHNAVI JAGADEO	8	8	7	6	8	8	45
2268	S190733072	THAKUR GAURAV RAM	9	9	9	9	9	9	54

2269	S190733073	DHAKE TILAKCHAND UMAKANT	8	8	8	8	8	8	48
2270	S190733074	TUPSOUNDARE RAJNANDINI RAJKUMAR	9	8	9	9	8	9	52
2271	S190733075	VADAK KOMAL VIJENDRA	9	9	9	9	9	9	54
2272	S190733076	PATIL VYANKATESH KAMLESH	7	7	8	6	5	6	39
2273	S190733077	WAGHMODE MAHESH NAMDEV	8	8	8	8	8	9	49
2274	S190733078	SONAVANE AMRUTA ASHOK	7	7	8	7	6	7	42
2275	S190733079	KHATAVAKAR PRIYANKA NAGNATH	8	8	7	7	8	8	46
2276	S190733080	LONDHE ANKITA DATTATRAY	8	8	8	8	8	8	48
2277	S190733081	MULANI MUSTKIN MAHIBUB	7	7	7	5	7	7	40
2278	S190733082	PATIL YUVRAJ RAJARAM	5	6	6	5	6	5	33
<b>AVERAGE</b>			<b>7.31</b>	<b>6.96</b>	<b>7.32</b>	<b>6.58</b>	<b>6.70</b>	<b>6.92</b>	<b>41.81</b>
<b>NO. OF STUDENTS SCORED MORE THAN 60% MARKS</b>			<b>73</b>	<b>69</b>	<b>72</b>	<b>60</b>	<b>61</b>	<b>70</b>	
<b>TOTAL NO. OF STUDENTS</b>			<b>77</b>						
<b>% ATTAINMENT LEVEL</b>			<b>94.81</b>	<b>89.61</b>	<b>93.51</b>	<b>77.92</b>	<b>79.22</b>	<b>90.91</b>	
<b>CO ATTAINMENT</b>			<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>2.00</b>	<b>2.00</b>	<b>3.00</b>	

<b>MOCK ORAL TEST</b>			
<b>SUBJECT: OBJECT ORIENTED PROGRAMMING /C 211</b>			<b>MOC</b>
<b>CLASS: SE(E&amp;TC)</b>			
<b>AY/SEM: 2021-22 /SEM-IV</b>			<b>MARKS</b>
<b>SUBJECT TEACHER: YOGESH S. BAHENDWAR</b>			<b>CO1-CO6</b>
<b>S. No.</b>	<b>Exam Seat No</b>	<b>Name of Student</b>	<b>10</b>
2201	S190733001	AADHAV SAKET DATTATARY	5
2202	S190733002	TENGALE ADESH LAXMAN	6
2203	S190733003	AEKAGRA DHAMANI	6
2204	S190733004	DAHIWAL AJINKYA SUNIL	6
2205	S190733005	ATHARVA JAIRAJ KADAM	5
2206	S190733006	ATTAR NAMEERA MOHOMAD RAFIK	6
2207	S190733007	SHARADHHA BADE	8
2208	S190733008	BHOITE ABHIJIT SHAHAJI	7
2209	S190733009	BHOSALE RUSHIKESH ARUN	5
2210	S190733010	BORHADE SHIVAM PANDURANG	7
2211	S190733011	BORSE ANSHULIKA YUVRAJ	8
2212	S190733012	CHAVHAN DNYANESHWAR SHARAD	8
2213	S190733013	DAPHAL CHETAN SHAHAJI	7
2214	S190733014	DESHPANDE CHAITRA	8
2215	S190733016	TAMBE EKTA DINESH	8
2216	S190733017	FIGREDO ISPURLEEN PETER	5
2217	S190733018	GADEKAR JAYAWANT BHIMRAO	5
2218	S190733019	GAT SHEETAL BABAJI	8
2219	S190733020	GOLE AISHWARYA SUHAS	8
2220	S190733021	HARGUDE AISHWARYA ANIL	8
2221	S190733022	JADE MEGHSHAM SANJAY	8
2222	S190733023	JAGTAP AJAY SHESHERAO	9
2223	S190733025	JOSHI BHARGAVI DINESH	7
2224	S190733026	KAND AKANSHA RAMDAS	5
2225	S190733027	KAND SIDDHI VIKAS	5
2226	S190733028	KEKAN PRAJAKTA PANDURANG	8
2227	S190733029	GARDARE KIRAN GANESH	7
2228	S190733030	KOLI PRADEEP DEEPAK	8
2229	S190733032	KUWAR SAKSHI JAYESH	8



2230	S190733033	LAGAD PRATIK DHONDIBA	8
2231	S190733034	LANKE ADITYA SANJAY	7
2232	S190733035	LONDHE PRUTHVIRAJ SURESH	8
2233	S190733036	MANE ABHAY SUDHAKAR	6
2234	S190733037	MANE NIKITA NILESH	9
2235	S190733038	MANE RUTUJA KAILAS	9
2236	S190733039	MATKAR AMAR CHATRABHUJ	9
2237	S190733040	SUPRIYA SUNIL MOHITE	6
2238	S190733041	NARUTE HARSHAD DHANAJI	6
2239	S190733042	NARWADE KUNAL DILIP	6
2240	S190733043	PATIL PRIYANKA BAPURAO	6
2241	S190733044	PATIL VISHWATEJ DATTATRAYA	6
2242	S190733046	PATOLE SHUBHAM	AB
2243	S190733047	SHUBHAM ASHOK PAWAR	7
2244	S190733048	PETKAR SAYALI DHANRAJ	7
2245	S190733049	RANDIVE KISHORI RAMDAS	9
2246	S190733050	RAUT DNYANESHWARI SHIVSHANKAR	8
2247	S190733051	SHITAL SANJAY RAVLE	5
2248	S190733052	SAKHARE SWAPNIL TANAJI	5
2249	S190733053	SALUNKHE JANHAVI SUBHASH	8
2250	S190733054	KHARATE SATYAM MACHINDRA	5
2251	S190733055	SAWANT SNEHA BALASO	5
2252	S190733056	SAWARGAVE RAJNANDINI DIPAK	8
2253	S190733057	SHAIKH ARMAN SAMEER	5
2254	S190733058	SHAIKH PARVEJ YASIN	5
2255	S190733059	SHAIKH UJEF SAMAD	8
2256	S190733060	SHAMKUWAR RAHUL RAJENDRA	5
2257	S190733061	SHELKE VAIBHAV TUKARAM	5
2258	S190733062	SHINDE ABHAY PRAMOD	5
2259	S190733063	GAWALI SHUBHAM SUNIL	6
2260	S190733064	SONAWANE KALPESH YUVRAJ	7
2261	S190733065	SONTAKKE DIVYA DNYANESHWAR	7
2262	S190733066	TAKLE ANJLI BASVRAJ	7
2263	S190733067	TAKLE ASHLESHA BASVRAJ	5
2264	S190733068	TAMHANE VAISHNAVI VINOD	7
2265	S190733069	TAYADE DEVENDRA AJAY	5
2266	S190733070	TAYE PRATIK RAMESH	6
2267	S190733071	THAKARE VAISHNAVI JAGADEO	8

2268	S190733072	THAKUR GAURAV RAM	8
2269	S190733073	DHAKE TILAKCHAND UMAKANT	8
2270	S190733074	TUPSOUNDARE RAJNANDINI RAJKUMAR	8
2271	S190733075	VADAK KOMAL VIJENDRA	9
2272	S190733076	PATIL VYANKATESH KAMLESH	9
2273	S190733077	WAGHMODE MAHESH NAMDEV	9
2274	S190733078	SONAVANE AMRUTA ASHOK	9
2275	S190733079	KHATAVAKAR PRIYANKA NAGNATH	8
2276	S190733080	LONDHE ANKITA DATTATRAY	8
2277	S190733081	MULANI MUSTKIN MAHIBUB	8
2278	S190733082	PATIL YUVRAJ RAJARAM	5
<b>AVERAGE</b>			<b>6.91</b>
<b>NO. OF STUDENTS SCORED MORE THAN 60% MARKS</b>			<b>58</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>77</b>
<b>% ATTAINMENT LEVEL</b>			<b>75.32</b>
<b>CO ATTAINMENT</b>			<b>2.00</b>

RECORD OF UNIVERISTY EXAM MARKS						
SUBJECT: OBJECT ORIENTED PROGRAMMING /C 211			UNIVERSITY MARKS			
CLASS: SE(E&TC)			TH (Online/ Insem+Endsem)	PR/OR	TW	Total
AY/SEM: 2021-22 /SEM-IV						
SUBJECT TEACHER: YOGESH S. BAHENDWAR			CO1-CO6			
S. No.	Exam Seat no	Name of Student	100	50	0	150
2201	S190733001	AADHAV SAKET DATTATARY	17	38	0	55
2202	S190733002	TENGAL ADESH LAXMAN	24	41	0	65
2203	S190733003	AEKAGRA DHAMANI	31	44	0	75
2204	S190733004	DAHIWAL AJINKYA SUNIL	22	44	0	66
2205	S190733005	ATHARVA JAIRAJ KADAM	23	29	0	52
2206	S190733006	ATTAR NAMEERA MOHOMAD RAFIK	30	40	0	70
2207	S190733007	SHARADHHA BADE	50	27	0	77
2208	S190733008	BHOITE ABHIJIT SHAHAJI	53	41	0	94
2209	S190733009	BHOSALE RUSHIKESH ARUN	27	28	0	55
2210	S190733010	BORHADE SHIVAM PANDURANG	45	42	0	87
2211	S190733011	BORSE ANSHULKA YUVRAJ	36	44	0	80
2212	S190733012	CHAVHAN DNYANESHWAR SHARAD	26	29	0	55
2213	S190733013	DAPHAL CHETAN SHAHAJI	50	47	0	97
2214	S190733014	DESHPANDE CHAITRA	46	44	0	90
2215	S190733016	TAMBE EKTA DINESH	14	42	0	56
2216	S190733017	FIGREDO ISPURLEEN PETER	28	40	0	68
2217	S190733018	GADEKAR JAYAWANT BHIMRAO	32	29	0	61
2218	S190733019	GAT SHEETAL BABAJI	47	47	0	94
2219	S190733020	GOLE AISHWARYA SUHAS	52	44	0	96
2220	S190733021	HARGUDE AISHWARYA ANIL	43	38	0	81
2221	S190733022	JADE MEGHSHAM SANJAY	45	38	0	83
2222	S190733023	JAGTAP AJAY SHESHERAO	40	38	0	78
2223	S190733025	JOSHI BHARGAVI DINESH	34	44	0	78
2224	S190733026	KAND AKANSHA RAMDAS	34	39	0	73
2225	S190733027	KAND SIDDHI VIKAS	36	39	0	75
2226	S190733028	KEKAN PRAJAKTA PANDURANG	53	42	0	95
2227	S190733029	GARDARE KIRAN GANESH	20	42	0	62
2228	S190733030	KOLI PRADEEP DEEPAK	27	46	0	73
2229	S190733032	KUWAR SAKSHI JAYESH	29	41	0	70
2230	S190733033	LAGAD PRATIK DHONDIBA	40	42	0	82
2231	S190733034	LANKE ADITYA SANJAY	40	38	0	78
2232	S190733035	LONDHE PRUTHVIRAJ SURESH	31	29	0	60
2233	S190733036	MANE ABHAY SUDHAKAR	31	37	0	68
2234	S190733037	MANE NIKITA NILESH	54	39	0	93
2235	S190733038	MANE RUTUJA KAILAS	48	48	0	96
2236	S190733039	MATKAR AMAR CHATRA BHUJ	40	40	0	80
2237	S190733040	SUPRIYA SUNIL MOHITE	18	28	0	46
2238	S190733041	NARUTE HARSHAD DHANAJI	52	39	0	91
2239	S190733042	NARWADE KUNAL DILIP	45	42	0	87
2240	S190733043	PATIL PRIYANKA BAPURAO	42	44	0	86
2241	S190733044	PATIL VISHWATEJ DATTATRAYA	35	36	0	71
2242	S190733046	PATOLE SHUBHAM	AB	AB	AB	AB
2243	S190733047	SHUBHAM ASHOK PAWAR	46	39	0	85
2244	S190733048	PETKAR SAYALI DHANRAJ	40	39	0	79
2245	S190733049	RANDIVE KISHORI RAMDAS	54	42	0	96
2246	S190733050	RAUT DNYANESHWARI SHIVSHANKAR	42	40	0	82
2247	S190733051	SHITAL SANJAY RAVLE	32	40	0	72
2248	S190733052	SAKHARE SWAPNIL TANAJI	40	37	0	77
2249	S190733053	SALUNKHE JANHAVI SUBHASH	35	37	0	72
2250	S190733054	KHARATE SATYAM MACHINDRA	24	42	0	66
2251	S190733055	SAWANT SNEHA BALASO	41	44	0	85
2252	S190733056	SAWARGAVE RAJNANDINI DIPAK	49	42	0	91
2253	S190733057	SHAIKH ARMAN SAMEER	41	29	0	70
2254	S190733058	SHAIKH PARVEJ YASIN	42	46	0	88
2255	S190733059	SHAIKH UJEF SAMAD	62	46	0	108
2256	S190733060	SHAMKUWAR RAHUL RAJENDRA	12	28	0	40
2257	S190733061	SHELKE VAIBHAV TUKARAM	40	42	0	82
2258	S190733062	SHINDE ABHAY PRAMOD	43	44	0	87
2259	S190733063	GAWALI SHUBHAM SUNIL	30	38	0	68
2260	S190733064	SONAWANE KALPESH YUVRAJ	58	42	0	100
2261	S190733065	SONTAKKE DIVYA DNYANESHWAR	29	26	0	55
2262	S190733066	TAKLE ANJLI BASVRAJ	50	30	0	80
2263	S190733067	TAKLE ASHLESHA BASVRAJ	61	27	0	88
2264	S190733068	TAMHANE VAISHNAVI VINOD	59	44	0	103
2265	S190733069	TAYADE DEVENDRA AJAY	40	39	0	79
2266	S190733070	TAYE PRATIK RAMESH	45	44	0	89
2267	S190733071	THAKARE VAISHNAVI JAGADEO	45	46	0	91
2268	S190733072	THAKUR GAURAV RAM	52	38	0	90
2269	S190733073	DHAKHE TILAKCHAND UMAKANT	47	48	0	95
2270	S190733074	TUPSOUNDARE RAJNANDINI RAJKUMAR	40	44	0	84
2271	S190733075	VADAK KOMAL VIJENDRA	53	27	0	80
2272	S190733076	PATIL VYANKATESH KAMLESH	44	42	0	86
2273	S190733077	WAGHMODE MAHESH NAMDEV	51	39	0	90
2274	S190733078	SONAVANE AMRUTA ASHOK	61	42	0	103
2275	S190733079	KHATAVAKAR PRIYANKA NAGNATH	40	28	0	68
2276	S190733080	LONDHE ANKITA DATTATRAY	46	29	0	75
2277	S190733081	MULANI MUSTKIN MAHIBUB	45	44	0	89
2278	S190733082	PATIL YUVRAJ RAJARAM	35	26	0	61
<b>AVERAGE</b>			<b>39.79</b>	<b>38.82</b>	<b>0.00</b>	<b>78.61</b>
<b>NO. STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>			<b>48</b>	<b>77</b>	<b>0</b>	
<b>TOTAL NO. OF STUDENTS</b>			<b>77</b>	<b>77</b>	<b>77</b>	
<b>% ATTAINMENT LEVEL</b>			<b>62.34</b>	<b>100.00</b>	<b>0.00</b>	
<b>CO ATTAINMENT</b>			<b>1.00</b>	<b>3.00</b>	<b>0.00</b>	

Threshold= 40% of the Marks

SUBJECT: OBJECT ORIENTED PROGRAMMING /C 211									
CLASS:SE(E&TC)(2019 COURSE)									
AY/SEM: 2021-22 /SEM-IV									
SUBJECT TEACHER: YOGESH S. BAHENDWAR									
Direct Assessment									
COs	Internal Assessment				External Assessment				OVERALL CO ATTAINMENT = (0.3*A+0.7*B)
	ATTAINMENT OF UT	ATTAINMENT OF ASSGN	ATTAINMENT OF MOCK ORAL	AVERAGE OF CO ATTAINMENT (A)	ATTAINMENT OF UNIVERSITY EXAM MARKS	ATTAINMENT OF UNIVERSITY OR	ATTAINMENT OF UNIVERSITY TW	Average (B)	
CO1	3.00	3.00	2.00	2.67	1.00	3.00	0.00	2.00	2.20
CO2	3.00	3.00	2.00	2.67	1.00	3.00	0.00	2.00	2.20
CO3	3.00	3.00	2.00	2.67	1.00	3.00	0.00	2.00	2.20
CO4	2.00	2.00	2.00	2.00	1.00	3.00	0.00	2.00	2.00
CO5	3.00	2.00	2.00	2.33	1.00	3.00	0.00	2.00	2.10
CO6	3.00	3.00	2.00	2.67	1.00	3.00	0.00	2.00	2.20
					Average				2.15

**SUBJECT: OBJECT ORIENTED PROGRAMMING /C 211 (SPPU code20194)**

**CLASS: SE(2019 COURSE) SEM-IV**

**AY/SEM: 2021-22 /SEM-IV**

**SUBJECT TEACHER: YOGESH S. BAHENDWAR**

CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C 214.1	2	1	1	-	-	-	-	-	-	-	-	-
C 214.2	2	1	1	-	-	-	-	-	-	-	-	2
C 214.3	3	2	1	1	-	-	-	-	-	-	-	-
C 214.4	3	1	1	-	-	-	-	-	-	-	-	2
C 214.5	2	1	1	1	-	-	-	-	-	-	-	2
C 214.6	3	2	2	1	-	1	1	-	-	-	-	-
<b>Average</b>	<b>2.5</b>	<b>1.3</b>	<b>1.2</b>	<b>1.0</b>	<b>#DIV/0!</b>	<b>1.00</b>	<b>1.00</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>2.00</b>

### POs & PSOs Attainment

**PO or PSO=(Weighted Average value of PO\*CO Attainment Average)/3**


**Weighted Average is average matrix of CO PO PSO Mapping**

### RESULT OF PO & PSO ATAINMENT

POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
WEIGHTED AVERAGE	2.50	1.30	1.2	1	0	1	1	0	0	0	0	2
ATTAINMENT LEVEL	1.79	0.93	0.86	0.72	0.00	0.72	0.72	0.00	0.00	0.00	0.00	1.43

CO CODE	PSO1	PSO2	PSO3
C 211.1	2	1	-
C 211.2	1	1	-
C 211.3	3	1	-
C 211.4	3	1	-
C 211.5	3	2	-
C 211.6	1	1	2
<b>Average</b>	<b>2.2</b>	<b>1.2</b>	<b>2.00</b>

PSO1	PSO2	PSO3
2.2	1.2	2
1.58	0.86	1.43

  
**Dr. Y.S. Angal**  
**H.O.D. E&TC**  
Electronics & Telecommunication Dept.  
Shriwarabai Sawant Institute of  
Technology & Research  
Mugholi, Pune-412207

**JSPM's Bhivarabai Sawant Institute of Technology & Research, Wagholi,  
Pune (412207)**

**Academic Year 2022-23**

## **PROCESS OF CO, PO, PSO Evaluation**

### **LIST OF PROGRAM OUTCOMES**

**PO1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

**PO2. Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

**PO3. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

**PO4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

**PO5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

**PO6. The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

**PO7. Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

**PO8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**PO9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

**PO11. Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO12. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

## **LIST OF COURSE OUTCOMES**

### **Subject; Signals & Systems**

Course Outcomes: On completion of the course, learner will be able to –

- CO1: Identify, classify basic signals and perform operations on signals.
- CO2: Identify, Classify the systems based on their properties in terms of input output relation and in terms of impulse response and will be able to determine the convolution between to signals.
- CO3: Analyze and resolve the signals in frequency domain using Fourier series and Fourier Transform.
- CO4: Resolve the signals in complex frequency domain using Laplace Transform, and will be able to apply and analyze the LTI systems using Laplace Transforms.
- CO5: Define and Describe the probability, random variables and random signals. Compute the probability of a given event, model, compute the CDF and PDF.
- CO6: Compute the mean, mean square, variance and standard deviation for given random variables using PDF.



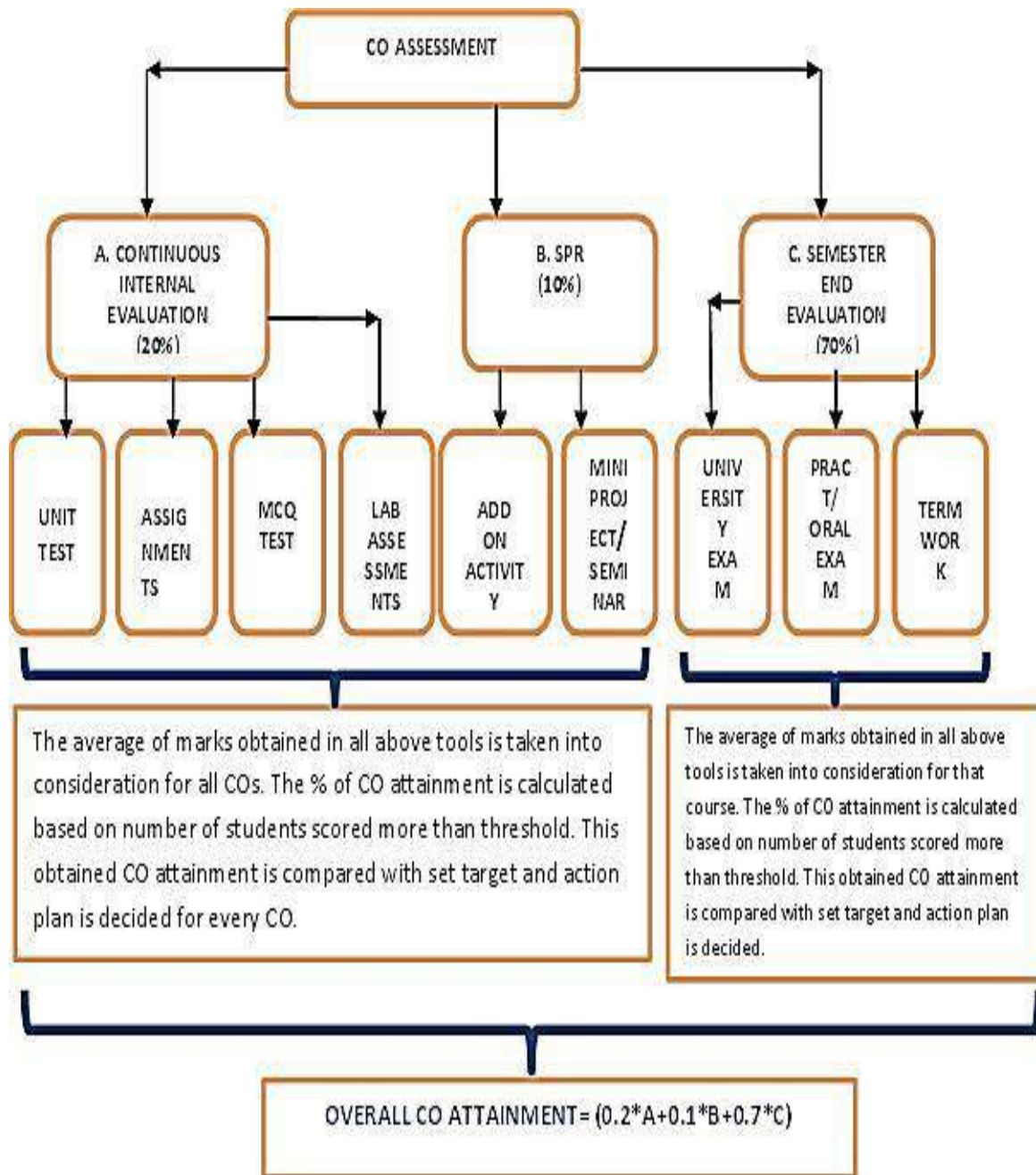
## MAPPING CO and PO: Subject; Signals & Systems

CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
204191.1	2	1	1	-	-	-	-	-	-	-	-	1
204191.2	2	1	1	-	3	-	-	-	-	-	-	2
204191.3	3	2	1	-	1	-	-	-	-	-	-	1
204191.4	3	2	1	1	-	-	-	-	-	-	-	2
204191.5	3	2	1	1	-	-	-	-	-	-	-	2
204191.6	3	2	1	1	2	-	-	-	-	-	-	2
<b>Average</b>	<b>2.67</b>	<b>1.67</b>	<b>1.00</b>	<b>1.00</b>	<b>2.00</b>	-	-	-	-	-	-	<b>1.67</b>

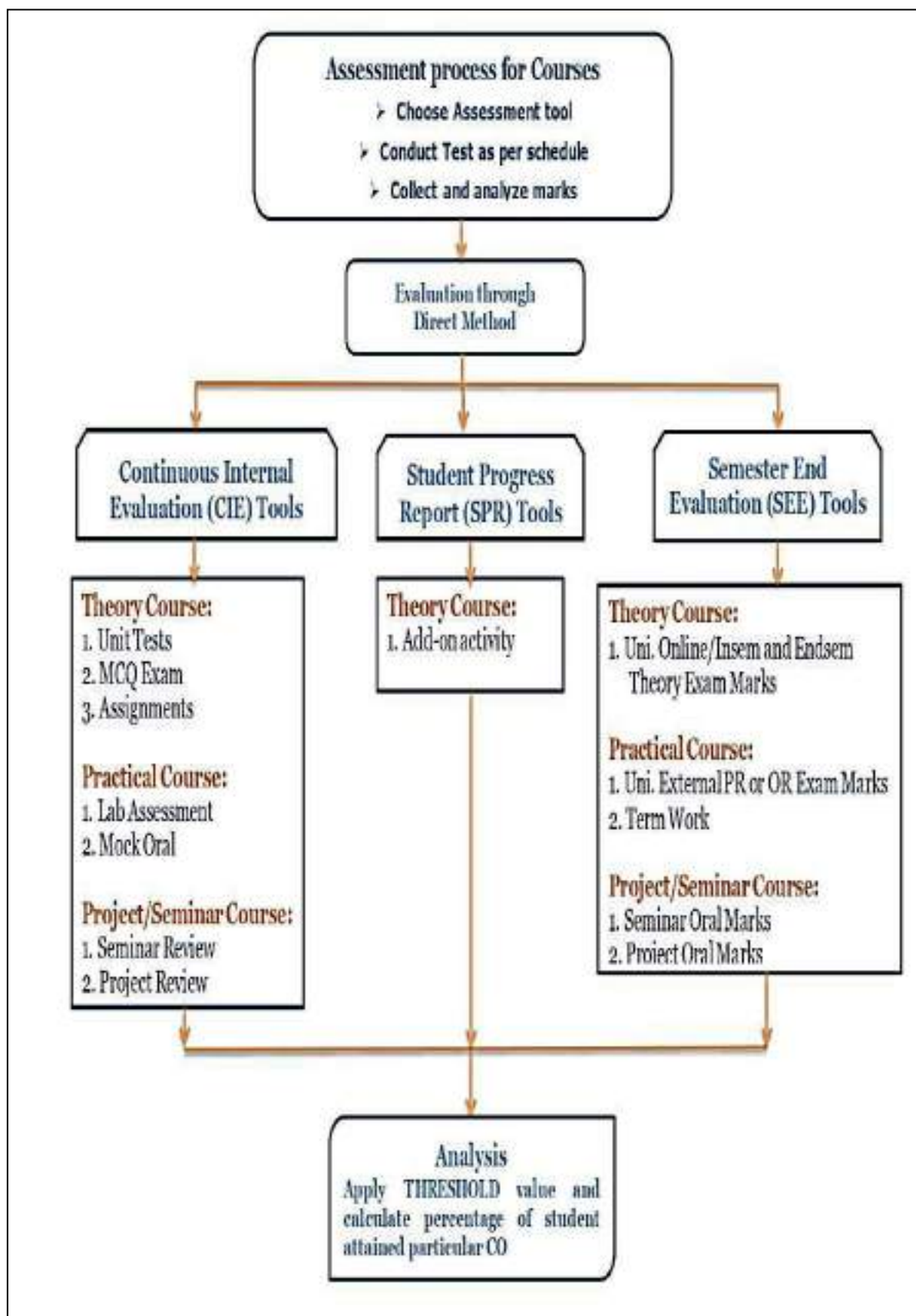
## MAPPING CO and PSO:

CO CODE	PSO1	PSO2	PSO3
404189.1	1	2	1
404189.2	2	3	2
404189.3	2	2	3
404189.4	1	-	3
404189.5	2	-	3
404189.6	2	2	3
<b>Average</b>	<b>1.67</b>	<b>2.25</b>	<b>2.50</b>

# ASSESSMENT PROCESS FOR DATA COLLECTION



FLOW CHART FOR THE ASSESSMENT TOOL/PROCESSES, USED TO GATHER THE DATA



**PROCESS FOR THE ASSESSMENT TOOL/PROCESSES, USED TO GATHER THE DATA**

## ASSESSMENT TOOLS AND THEIR WEIGHTAGES IN EVALUATION OF COS

Assessment tools and its weightage in overall attainment of COs				
Sr. No.	Internal And External Assessment tools	CIE	SPR	SPPU
1	Course assessed by Internal exam only	100%	-	-
2	Course assessed by Internal and SPPU exam	30%	-	70%
3	Course assessed by Internal exam, Lab and SPPU exam	30%	-	70%
4	Course assessed by Internal exam, Lab, Add on activity/scenario Assignment etc. and SPPU exam	20%	10%	70%
5	Course assessed by co and extra-curricular activities only- Audit Course	-	100%	-

### INTERNAL DIRECT ASSESSMENT TOOLS

TOOLS USED FOR DIRECT ASSESSMENT		
A. Continuous Internal Assessment (CIE)		
Sr. No.	Tool	Description
1	Unit Test	The department is conducting two unit tests after completion of every 3 units, each of 30marks. The entire exam schedule will be monitored by unit test coordinator.
		The subject teachers will prepare the Question papers for the respective subject and will be submitted to UT coordinator well in advance.
		The subject teachers will evaluate the performance of students as per the assessment rubrics and submit marks sheets to the UT coordinator in a prescribed format.
		The Cos whose target is not achieved are identified and proceed for Corrective and Preventive Actions.
2	Assignments	After the completion of each unit, subject teachers will provide assignments which include the questions based on CO of the respective unit. Each assignment carries 10 marks.
		Marks are allotted based on- in time completion, discipline and number of questions attempted.
3	Mcqs TEST	MCQs tests are conducted for clearing basic concepts of the students. It is scheduled after the completion of every unit/CO of the respective course.
		In this test, students are asked objective questions based CO. Each question carries 1 mark. Subject teacher prepares a final marks sheet based on the responses of students.
4	Lab Assessments	After completion & conduction of every experiment, subject teacher will prepare summary of every student regarding outcome of that experiment. Through this tool the students will be assessed using different sub tools like skill of handling of equipment, quality of performance, level of understanding through mock oral.

## STUDENTS PERFORMANCE RUBRIC (SPR)

Sr. No.	Tool	Description
1	Add On Activity	This spr tool is used to calculate the performance of students through different academic activities related to respective course. This may include any activities that are used to enhance the knowledge of the students to improve overall skills of that course.
		The ACTIVITY WILL BE CARRIED OUT DURING REGULAR ACADEMICS BY SUBJECT TEACHER.
		Marks are allotted based performance of every student and cos obtaining less than 60% of the maximum marks are identified and proceed for corrective and preventive actions.
2	Mini Project/Seminar	This spr tool is used to incorporate the individual & team work, communication along with project management & finance qualities into the students.
		Course related seminars and mini projects (hardware implementations) will be carried out by subject teacher.
		The ACTIVITY WILL BE CARRIED OUT DURING REGULAR ACADEMICS BY SUBJECT TEACHER.
		Marks are allotted based performance of every student and cos obtaining less than 60% of the maximum marks are identified and proceed for corrective and preventive actions.

## SEMESTER END EVALUATION (SEE)

Sr. No.	Tool	Description
1	University Theory Exams	University theory exams will be conducted in two parts- INSEM of 30 marks (Based on first three units) and ENDSEM of 70 marks.(Based on 20 marks of first three units and 50 marks of remaining three units)
2	University Practical/Oral Exams	<p>External Practical/Oral examination is conducted by the panel of examiners deputed by the SPPU University.</p> <p>Based on the performance of the student in the view of his/her knowledge &amp; understanding, presentation skills, performance during Practical /Oral examination, the marks are allotted to students in consultation with external examiner appointed by SPPU authorities.</p> <p>The university prescribed 50/25 marks for practical or oral examinations and 40 % marks are required in order to pass this examination.</p>
3	Term Work	<p>Respective Subject teachers will follow the rubrics, which is set by the department for evaluation of term work marks.</p> <p>Based on the performance of the student in the view of his/her knowledge &amp; understanding, presentation skills, performance, the term work marks are allotted to students.</p> <p>The university prescribed 50/25 marks for term work examinations and 40 % marks are required in order to pass this examination.</p>
5	Project Stage I & II	<p>Students are asked to submit three topics of their area of interest to the project coordinator. These topics will be based on latest technologies and referring to IEEE or reputed journals. The students are asked to submit these topics based on societal applications, environmental sustainability &amp; usefulness as well as keeping in mind ethical &amp; moral responsibility. A committee will scrutinize these topics based on presentations given by students and finalize one topic. A guide will be allocated to each group based on the area of research of the guide.</p> <p>During the academic year the students are asked to report to guide, project coordinator and HOD regarding progress of their project work carried out. A log book is maintained by each project group. Periodical Presentations are conducted by the department to encourage the students and to guide them properly to complete their project work.</p> <p>External Project Viva is conducted by the panel of examiners deputed by the University.</p> <p>Based on the viva, marks are awarded to students and submitted to the university.</p>



# BHIVARABAI SAWANT INSTITUTE OF TECHNOLOGY AND RESEARCH, PUNE

Gate No. 720/1 & 2, Nagar Road, Wagholi, Pune, Maharashtra 412207  
Approved By AICTE, New Delhi, Govt. Of Maharashtra & Affiliated To Savitribai Phule Pune University

Accredited by NAAC with a B++ grade  
and

NBA accredited programs: Electronics and Telecommunication Engineering, Information Technology and Electrical Engineering

## CO-PO Evaluation Sheet for Signals & Systems

<b>SUBJECT: SIGNALS &amp; SYSTEMS</b>														
<b>CLASS: SE(E&amp;TC)</b>														
<b>AY/SEM: 2022-23/SEM-II</b>														
<b>SUBJECT TEACHER: Dr. Anil Wanare</b>														
<b>Direct Assessment</b>														
<b>COs</b>	<b>Internal Assessment</b>									<b>External Assessment</b>				<b>Total</b>
	<b>UNIT TEST</b>		<b>Assignment</b>						<b>Mock Oral</b>	<b>UNIVERSITY THEORY (Online/Insem+Endsem)</b>	<b>UNIVERSITY PR/OR</b>	<b>UNIVERSITY TW</b>		
	<b>I</b>	<b>II</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>						
CO1	10		10						10	100	25	25	180	
CO2	10			10				180						
CO3		10			10			180						
CO4		10				10		180						
CO5		10					10	180						
CO6		10					10	180						
<b>Total</b>	20	40	10	10	10	10	10	10	10	100	25	25		

*Anil Wanare*  
Subject Teacher

*Anil Wanare*  
HOD  
Electronics & Telecommunication Engineering Dept  
Savitribai Phule Pune University

### REORD OF UNIT TEST MARKS

SUBJECT: SIGNALS AND SYSTEMS			UNIT TEST MARKS					
CLASS: SE(E&TC)			UNIT TEST-I MARKS			UNIT TEST-II MARKS		
AY/SEM: 2022-23 /SEM-II			CO1	CO2	CO3	CO4	CO5	CO6
SUBJECT TEACHER: Dr. Anil Laxman Wanare			10	10	10	10	10	10
Roll no	Exam Seat No	Name of Student						
1	S190733001	ABHJEET TATYASAHEB CHAUDHARI	4	6	6	8	7	6
2	S190733002	ADHAU ABHISHEK VINOD	7	8	7	8	6	7
3	S190733003	ADHAV ARYA SHIVAJI	5	6	7	8	6	6
4	S190733004	ANDHARE PRIYA VINAYAK	6	7	7	7	6	7
5	S190733005	ANKUSHE MAHESH RAJENDRA	5	7	7	5	7	6
6	S190733006	AUTI SOHAM RAMDAS	4	8	8	8	8	6
7	S190733007	BAGWAN MUBEEN SAMEER	4	9	9	9	9	9
8	S190733008	BANDE RUSHIKESH LAXMAN	4	8	8	9	8	9
9	S190733009	BHOSALE SHAMBHURANJE SANTOSH	5	7	8	5	8	6
10	S190733010	CHAVAN PIYUSH KAUTIK	5	6	6	5	6	6
11	S190733011	CHAVAN RAVIRAJ ANANDRAO	6	6	6	5	7	6
12	S190733012	CHAVARE ATHARV UMESH	8	7	6	6	6	6
13	S190733013	CHOURE PRANITA BHAUSAHEB	4	5	6	6	6	5
14	S190733014	CIRVI UMESH MOHANLAL	5	8	9	6	8	8
15	S190733015	DHALPE ATHARV VIJAYKUMAR	5	8	8	6	8	8
16	S190733016	DHULGANDE KIRAN SURYAKANT	6	8	8	6	8	8
17	S190733017	SHRADHA BHASKAR DIGHE	6	5	6	6	6	6
18	S190733018	PRANITA JALINDAR GADHAVE	5	5	6	7	6	6
19	S190733019	GAIKWAD PRASAD SANTOSH	8	8	7	7	6	7
20	S190733020	GAVANDI UDDHAV SANJAY	6	7	6	6	6	6
21	S190733021	AVINASH BHARAT GHALME	8	7	7	7	6	6
22	S190733022	GHULE SANKET ARUN	9	9	9	9	9	9
23	S190733023	HOLKAR MANSI MUKUND	8	8	8	8	8	8
24	S190733024	JADHAV SITARAM SUBHASH	5	8	8	8	8	7
25	S190733025	JADHAWAR ASHUTOSH RAMESH	6	6	6	5	6	6
26	S190733026	KADAM ADITYA MANOHAR	5	5	6	5	6	5
27	S190733027	KADAM KUNAL ASHISH	5	8	8	7	8	8
28	S190733028	KAKADE PRANITEE ARJUN	4	9	8	6	9	9

*Dr. Anil Laxman Wanare*

*[Signature]*  
 Department of Communication Dep  
 Bhamburda Summit Institute of  
 Technology & Research



29	S190733029	KARLE KAMLESH RAJENDRA	5	8	8	8	8	8
30	S190733030	AJAY SUNIL KASABE	8	8	8	8	8	7
31	S190733031	KATE CHANDRASHEKHAR BHIAUSAHEB	6	6	6	5	6	6
32	S190733032	DIVYA ZUMBER KAWALE	5	5	6	5	6	5
33	S190733033	KULKARNI PARJANYA PRAVIN	4	8	8	7	8	8
34	S190733034	KUMBHAR AKSHAY VIJAY	4	9	8	6	9	9
35	S190733035	MORE ANURAG CHAURANG	4	6	6	5	7	6
36	S190733036	MOURYA TUSHAR ANIL	8	7	6	6	6	6
37	S190733037	NAIR ANJALI RAJAN	4	5	6	6	6	5
38	S190733038	NARWADE RITESH SANTOSH	4	8	9	6	8	8
39	S190733039	NIKAM VISHAKHA SUDHAKAR	7	8	8	6	8	8
40	S190733040	NISHANT S PAWAR	8	8	8	6	8	8
41	S190733041	PATHARKAR YOGESH PRAKASH	6	5	6	6	6	6
42	S190733042	PARIGHA SANJAY PATIL	5	5	6	7	6	6
43	S190733043	PATIL RUSHIKESH VISHNU	8	8	7	7	6	7
44	S190733044	PATIL SIDDHANT SOMNATH	6	7	6	6	6	6
45	S190733045	PATIL VAIBHAV RAJENDRA	4	7	7	7	6	6
46	S190733046	PAWAR SAMRUDDHI PRAKASH	4	9	9	9	9	9
47	S190733047	PESHAVE MADHURA SANJAY	4	8	8	8	8	8
48	S190733048	PHAD GAYTRI HARIBHAU	6	6	6	5	7	6
49	S190733049	PRATEEK GAJENDRA HAJARE	8	7	6	6	6	6
50	S190733050	RAMBHAD RUSHITA YOGESH	9	5	6	6	6	5
51	S190733051	RASAL KARTIKI SACHIN	8	8	9	6	8	8
52	S190733052	RASAL UDAY SHARAD	7	8	8	6	8	8
53	S190733053	RODE ABHIRAJ PRAVIN	8	8	8	6	8	8
54	S190733054	RODE ASHWINI TANAJI	6	5	6	6	6	6
55	S190733055	RUDRESH RODE	5	5	6	7	6	6
56	S190733056	ROKADE SAKSHI ANIL	8	8	7	7	6	7
57	S190733057	ROLE ROHIT BHIMRAO	6	7	6	6	6	6
58	S190733058	SALEGAONKAR ANAND GOPALRAO	8	7	7	7	6	6
59	S190733059	SALUNKE GANESH SHIVAJI	9	9	9	9	9	9
60	S190733060	GUND SANDESH SANTOSH	8	8	8	8	8	8
61	S190733061	SARULE ASHISH DEVICHAND	6	6	6	5	7	6
62	S190733062	SAYYED MUSKAN RASULSAB	8	7	6	6	6	6
63	S190733063	SHARDUL NIKITA NITIN	9	5	6	6	6	5
64	S190733064	SHETE RUTUJA RATAN	8	8	9	6	8	8

*Prwanare*

65	S190733065	SHINDE SUSHANT RAJENDRA	7	8	8	6	8	8
66	S190733066	SHITOLE SHIVANI MINANATH	8	8	8	6	8	8
67	S190733067	SINGH SUNDARAM BRAJESH	6	5	6	6	6	6
68	S190733068	ARCHANA SHIVAJI SONAWANE	5	5	6	7	6	6
69	S190733069	SONAWANE SHALAKA SUNIL	8	8	7	7	6	7
70	S190733070	SOPANE DNYANESHWARI SAHEBRAO	6	7	6	6	6	6
71	S190733071	TALE PRATIK SUBHASHRAO	8	7	7	7	6	6
72	S190733072	THAKARE SANDESH SHANKAR	9	9	9	9	9	9
73	S190733073	THAKUR ASHUTOSH RAM	8	8	8	8	8	8
74	S190733074	UBALE KUBER ANIL	8	8	8	8	8	7
75	S190733075	WAHUL DIPAK GANESH	6	6	6	5	6	5
76	S190733076	WALKIKAR SANIYA DINESH	7	4	4	4	4	4
77	S190733077	YENGE ANTESHWAR NAMDEV	6	6	7	6	6	6
<b>AVERAGE MARKS</b>			6.25	7.01	7.09	6.56	6.97	6.81
<b>NO. OF STUDENTS SCORED MORE THAN 60% MARKS</b>			48	62	76	64	76	69
<b>TOTAL NO. OF STUDENTS</b>			77					
<b>% ATTAINMENT LEVEL</b>			62.34	80.52	98.70	83.12	98.70	89.61
<b>CO ATTAINMENT</b>			1.00	3.00	3.00	3.00	3.00	3.00

Wanare

  
 H. U. D.  
 Electronic & Telecommunication Dept  
 Bhivarabai Saheb Institute of  
 Technology & Research  
 Wagholi, Pune-412 207



### RECORD OF ASSIGNMENT MARKS

SUBJECT: SIGNALS AND SYSTEMS			ASSIGNMENT MARKS						
CLASS: SE(E&TC)									
AY/SEM: 2022-23 /SEM-II			A1	A2	A3	A4	A5	A6	Total
SUBJECT TEACHER: Dr. Anil Laxman Wanare			CO1	CO2	CO3	CO4	CO5	CO6	
S. No.	Exam Seat no	Name of Student	10	10	10	10	10	10	
1	S190733001	ABHJEET TATYASAHEB CHAUDHARI	7	7	8	9	8	7	46
2	S190733002	ADHAU ABHISHEK VINOD	8	9	7	7	8	8	47
3	S190733003	ADHAV ARYA SHIVAJI	9	7	9	7	9	7	48
4	S190733004	ANDHARE PRIYA VINAYAK	7	7	7	7	7	7	42
5	S190733005	ANKUSHE MAHESH RAJENDRA	7	7	7	8	9	7	45
6	S190733006	AUTI SOHAM RAMDAS	7	9	7	7	9	8	47
7	S190733007	BAGWAN MUBEEN SAMEER	9	9	7	7	9	7	48
8	S190733008	BANDE RUSHIKESH LAXMAN	9	9	9	8	9	8	52
9	S190733009	BHOSALE SHAMBHURANJE SANTOSH	7	7	9	7	7	9	46
10	S190733010	CHAVAN PIYUSH KAUTIK	8	8	7	7	7	8	45
11	S190733011	CHAVAN RAVIRAJ ANANDRAO	7	8	9	9	7	7	47
12	S190733012	CHAVARE ATHARV UMESH	7	7	7	8	7	9	45
13	S190733013	CHOURE PRANITA BHAUSAHEB	7	9	9	7	7	7	46
14	S190733014	CIRVI UMESH MOHANLAL	7	7	7	9	7	9	46
15	S190733015	DHALPE ATHARV VIJAYKUMAR	7	9	7	7	7	7	44
16	S190733016	DHULGANDE KIRAN SURYAKANT	7	7	9	9	7	7	46
17	S190733017	SHRADHA BHASKAR DIGHE	7	7	8	8	7	7	44
18	S190733018	PRANITA JALINDAR GADHAVE	7	8	9	9	7	9	49
19	S190733019	GAIKWAD PRASAD SANTOSH	9	9	7	9	7	7	48
20	S190733020	GAVANDI UDDHAV SANJAY	7	7	7	7	7	8	43
21	S190733021	AVINASH BHARAT GHALME	7	7	9	7	9	8	47
22	S190733022	GHULE SANKET ARUN	7	7	7	7	7	9	44
23	S190733023	HOLKAR MANSI MUKUND	9	9	9	7	8	7	49
24	S190733024	JADHAV SITARAM SUBHASH	7	7	8	9	8	7	46
25	S190733025	JADHAWAR ASHUTOSH RAMESH	8	9	7	7	8	8	47
26	S190733026	KADAM ADITYA MANOHAR	9	7	9	7	9	7	48
27	S190733027	KADAM KUNAL ASHISH	7	7	7	7	7	7	42
28	S190733028	KAKADE PRANITEE ARJUN	7	7	7	8	9	7	45
29	S190733029	KARLE KAMLESH RAJENDRA	7	9	7	7	9	8	47
30	S190733030	AJAY SUNIL KASABE	9	9	7	7	9	7	48
31	S190733031	KATE CHANDRASHEKHAR BHAUSAHEB	9	9	9	8	9	8	52
32	S190733032	DIVYA ZUMBER KAWALE	7	7	9	7	7	9	46
33	S190733033	KULKARNI PARJANYA PRAVIN	8	8	7	7	7	8	45
34	S190733034	KUMBHAR AKSHAY VIJAY	7	8	9	9	7	7	47

*Anil Wanare*




35	S190733035	MOORE ANURAG CHAURANG	7	7	7	8	7	9	45
36	S190733036	MOURYA TUSHAR ANIL	7	9	9	7	7	7	46
37	S190733037	NAIR ANJALI RAJAN	7	7	8	9	8	7	46
38	S190733038	NARWADE RITESH SANTOSH	8	9	7	7	8	8	47
39	S190733039	NIKAM VISHAKHA SUDHAKAR	9	7	9	7	9	7	48
40	S190733040	NISHANT S PAWAR	7	7	7	7	7	7	42
41	S190733041	PATHARKAR YOGESH PRAKASH	7	7	7	8	9	7	45
42	S190733042	PARIGHA SANJAY PATIL	7	9	7	7	9	8	47
43	S190733043	PATIL RUSHIKESH VISHNU	9	9	7	7	9	7	48
44	S190733044	PATIL SIDDHANT SOMNATH	9	9	9	8	9	8	52
45	S190733045	PATIL VAIBHAV RAJENDRA	7	7	9	7	7	9	46
46	S190733046	PAWAR SAMRUDDHI PRAKASH	8	8	7	7	7	8	45
47	S190733047	PESHAVE MADHURA SANJAY	7	8	9	9	7	7	47
48	S190733048	PHAD GAYTRI HARIBHAU	7	7	7	8	7	9	45
49	S190733049	PRATEEK GAJENDRA HAJARE	7	9	9	7	7	7	46
50	S190733050	RAMBHAD RUSHITA YOGESH	7	7	7	9	7	9	46
51	S190733051	RASAL KARTIKI SACHIN	7	7	8	9	8	7	46
52	S190733052	RASAL UDAY SHARAD	8	9	7	7	8	8	47
53	S190733053	RODE ABHIRAJ PRAVIN	9	7	9	7	9	7	48
54	S190733054	RODE ASHWINI TANAJI	7	7	7	7	7	7	42
55	S190733055	RUDRESH RODE	7	7	7	8	9	7	45
56	S190733056	ROKADE SAKSHI ANIL	7	9	7	7	9	8	47
57	S190733057	ROLE ROHIT BHIMRAO	9	9	7	7	9	7	48
58	S190733058	SALEGAONKAR ANAND GOPALRAO	9	9	9	8	9	8	52
59	S190733059	SALUNKE GANESH SHIVAJI	7	7	9	7	7	9	46
60	S190733060	GUND SANDESH SANTOSH	7	7	8	9	8	7	46
61	S190733061	SARULE ASHISH DEVICHAND	8	9	7	7	8	8	47
62	S190733062	SAYYED MUSKAN RASULSAB	9	7	9	7	9	7	48
63	S190733063	SHARDUL NIKITA NITIN	7	7	7	7	7	7	42
64	S190733064	SHETE RUTUJA RATAN	7	7	7	8	9	7	45
65	S190733065	SHINDE SUSHANT RAJENDRA	7	9	7	7	9	8	47
66	S190733066	SHITOLE SHIVANI MINANATH	9	9	7	7	9	7	48
67	S190733067	SINGH SUNDARAM BRAJESH	9	9	9	8	9	8	52
68	S190733068	ARCHANA SHIVAJI SONAWANE	7	7	9	7	7	9	46
69	S190733069	SONAWANE SHALAKA SUNIL	8	8	7	7	7	8	45
70	S190733070	SOPANE DNYANESHWARI SAHEBRAO	7	8	9	9	7	7	47
71	S190733071	TALE PRATIK SUBHASHRAO	7	7	7	8	7	9	45
72	S190733072	THAKARE SANDESH SHANKAR	7	9	9	7	7	7	46
73	S190733073	THAKUR ASHUTOSH RAM	7	7	7	9	7	9	46
74	S190733074	UBALE KUBER ANIL	7	9	7	7	7	7	44
75	S190733075	WAHUL DIPAK GANESH	7	7	9	9	7	7	46

*Swanare*



76	S190733076	WALKIKAR SANIYA DINESH	7	7	8	8	7	7	44	
77	S190733077	YENGE ANTRESHWAR NAMDEV	7	7	8	9	9	9	49	
<b>AVERAGE</b>			<b>7.56</b>	<b>7.84</b>	<b>7.83</b>	<b>7.65</b>	<b>7.84</b>	<b>7.66</b>	<b>46.39</b>	
<b>NO. OF STUDENTS SCORED MORE THAN 60% MARKS</b>			<b>77</b>	<b>77</b>	<b>77</b>	<b>77</b>	<b>77</b>	<b>77</b>		
<b>TOTAL NO. OF STUDENTS</b>			<b>77</b>							
<b>% ATTAINMENT LEVEL</b>			<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>		
<b>CO ATTAINMENT</b>			<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>		

Swaranik

  
 Electronics & Telecommunication Dept  
 Dr. Bhanu Sankar Institute of  
 Technology & Research  
 Wagholi, Pune-412 207

### MOCK ORAL TEST

SUBJECT: SIGNALS AND SYSTEMS			MOC
CLASS: SE(E&TC)			
AY/SEM: 2022-23 /SEM-II			MARKS
SUBJECT TEACHER: Dr. Anil Laxman Wanare			COI-CO6
S. No.	Exam Seat No	Name of Student	10
1	S190733001	ABHIJEET TATYASAHEB CHAUDHARI	8
2	S190733002	ADHAU ABHISHEK VINOD	9
3	S190733003	ADHAV ARYA SHIVAJI	8
4	S190733004	ANDHARE PRIYA VINAYAK	9
5	S190733005	ANKUSHE MAHESH RAJENDRA	8
6	S190733006	AUTI SOHAM RAMDAS	8
7	S190733007	BAGWAN MUBEEN SAMEER	9
8	S190733008	BANDE RUSHIKESH LAXMAN	7
9	S190733009	BHOSALE SHAMBHURANJE SANTOSH	8
10	S190733010	CHAVAN PIYUSH KAUTIK	8
11	S190733011	CHAVAN RAVIRAJ ANANDRAO	8
12	S190733012	CHAVARE ATHARV UMESH	8
13	S190733013	CHOURE PRANITA BHAUSAHEB	7
14	S190733014	CIRVI UMESH MOHANLAL	8
15	S190733015	DHALPE ATHARV VIJAYKUMAR	9
16	S190733016	DHULGANDE KIRAN SURYAKANT	8
17	S190733017	SHRADHA BHASKAR DIGHE	9
18	S190733018	PRANITA JALINDAR GADHAVE	8
19	S190733019	GAIKWAD PRASAD SANTOSH	8
20	S190733020	GAVANDI UDDHAV SANJAY	9
21	S190733021	AVINASH BHARAT GHALME	7
22	S190733022	GHULE SANKET ARUN	8
23	S190733023	HOLKAR MANSI MUKUND	8
24	S190733024	JADHAV SITARAM SUBHASH	8
25	S190733025	JADHAWAR ASHUTOSH RAMESH	8
26	S190733026	KADAM ADITYA MANOHAR	7

*Anil Laxman Wanare*

  
 Dr. Anil Laxman Wanare  
 Electronics & Telecommunication Division Dept.  
 Birla Institute of Technology & Research  
 Waghholi, Pune-412 207

27	S190733027	KADAM KUNAL ASHISH	8
28	S190733028	KAKADE PRANITEE ARJUN	9
29	S190733029	KARLE KAMLESH RAJENDRA	8
30	S190733030	AJAY SUNIL KASABE	9
31	S190733031	KATE CHANDRASHEKHAR BHAUSAHEB	8
32	S190733032	DIVYA ZUMBER KAWALE	8
33	S190733033	KULKARNI PARJANYA PRAVIN	9
34	S190733034	KUMBHAR AKSHAY VIJAY	7
35	S190733035	MORE ANURAG CHAURANG	8
36	S190733036	MOURYA TUSHAR ANIL	8
37	S190733037	NAIR ANJALI RAJAN	8
38	S190733038	NARWADE RITESH SANTOSH	8
39	S190733039	NIKAM VISHAKHA SUDHAKAR	7
40	S190733040	NISHANT S PAWAR	8
41	S190733041	PATHARKAR YOGESH PRAKASH	9
42	S190733042	PARIGHA SANJAY PATIL	8
43	S190733043	PATIL RUSHIKESH VISHNU	9
44	S190733044	PATIL SIDDHANT SOMNATH	8
45	S190733045	PATIL VAIBHAV RAJENDRA	8
46	S190733046	PAWAR SAMRUDDHI PRAKASH	9
47	S190733047	PESHAVE MADHURA SANJAY	7
48	S190733048	PHAD GAYTRI HARIBHAU	8
49	S190733049	PRATEEK GAJENDRA HAJARE	8
50	S190733050	RAMBHAD RUSHITA YOGESH	8
51	S190733051	RASAL KARTIKI SACHIN	8
52	S190733052	RASAL UDAY SHARAD	7
53	S190733053	RODE ABHIRAJ PRAVIN	8
54	S190733054	RODE ASHWINI TANAJI	9
55	S190733055	RUDRESH RODE	8
56	S190733056	ROKADE SAKSHI ANIL	9
57	S190733057	ROLE ROHIT BHIMRAO	8
58	S190733058	SALEGAONKAR ANAND GOPALRAO	8
59	S190733059	SALUNKE GANESH SHIVAJI	9
60	S190733060	GUND SANDESH SANTOSH	7

*Wanare*

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61	S190733061	SARULE ASHISH DEVICHAND	8
62	S190733062	SAYYED MUSKAN RASULSAB	8
63	S190733063	SHARDUL NIKITA NITIN	9
64	S190733064	SHETE RUTUJA RATAN	8
65	S190733065	SHINDE SUSHANT RAJENDRA	9
66	S190733066	SHITOLE SHIVANI MINANATH	8
67	S190733067	SINGH SUNDARAM BRAJESH	8
68	S190733068	ARCHANA SHIVAJI SONAWANE	9
69	S190733069	SONAWANE SHALAKA SUNIL	7
70	S190733070	SOPANE DNYANESHWARI SAHEBRAO	8
71	S190733071	TALE PRATIK SUBHASHRAO	8
72	S190733072	THAKARE SANDESH SHANKAR	8
73	S190733073	THAKUR ASHUTOSH RAM	8
74	S190733074	UBALE KUBER ANIL	7
75	S190733075	WAHUL DIPAK GANESH	8
76	S190733076	WALKIKAR SANIYA DINESH	8
77	S190733077	YENGE ANTESHWAR NAMDEV	7
<b>AVERAGE</b>			<b>8.08</b>
<b>NO. OF STUDENTS SCORED MORE THAN 60% MARKS</b>			<b>77</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>77</b>
<b>% ATTAINMENT LEVEL</b>			<b>100.00</b>
<b>CO ATTAINMENT</b>			<b>3.00</b>

*Swanash*



## RECORD OF UNIVERISTY EXAM MARKS

SUBJECT: SIGNALS AND SYSTEMS			UNIVERSITY MARKS		
CLASS: SE(E&TC)			UNIVERSITY MARKS		
AY/SEM: 2022-23 /SEM-II			TH (Online/ Insem+Endsem)	TW	Total
SUBJECT TEACHER: Dr. Anil Laxman Wanare			CO1-CO6		Total
S. No.	Exam Seat no	Name of Student	100	25	125
1	S190733001	ABHIJEET TATYASAHEB CHAUDHARI	59	23	82
2	S190733002	ADHAU ABHISHEK VINOD	16	18	34
3	S190733003	ADHAV ARYA SHIVAJI	26	19	45
4	S190733004	ANDHARE PRIYA VINAYAK	48	20	68
5	S190733005	ANKUSHE MAHESH RAJENDRA	38	19	57
6	S190733006	AUTI SOHAM RAMDAS	50	19	69
7	S190733007	BAGWAN MUBEEN SAMEER	22	18	40
8	S190733008	BANDE RUSHIKESH LAXMAN	30	20	50
9	S190733009	BHOSALE SHAMBHURANJE SANTOSH	46	23	69
10	S190733010	CHAVAN PIYUSH KAUTIK	52	20	72
11	S190733011	CHAVAN RAVIRAJ ANANDRAO	48	18	66
12	S190733012	CHAVARE ATHARV UMESH	37	19	56
13	S190733013	CHOURE PRANITA BHAUSAHEB	36	21	57
14	S190733014	CIRVI UMESH MOHANLAL	89	24	113
15	S190733015	DHALPE ATHARV VIJAYKUMAR	45	18	63
16	S190733016	DHULGANDE KIRAN SURYAKANT			0
17	S190733017	SHRADHA BHASKAR DIGHE	45	20	65
18	S190733018	PRANITA JALINDAR GADHAVE	51	24	75
19	S190733019	GAIKWAD PRASAD SANTOSH	40	19	59
20	S190733020	GAVANDI UDDHAV SANJAY	21	15	36
21	S190733021	AVINASH BHARAT GHALME	67	23	90
22	S190733022	GHULE SANKET ARUN	28	19	47
23	S190733023	HOLKAR MANSI MUKUND	55	21	76
24	S190733024	JADHAV SITARAM SUBHASH	20	22	42

*Anil Laxman Wanare*

  
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25	S190733025	JADHAWAR ASHUTOSH RAMESH	20	15	35
26	S190733026	KADAM ADITYA MANOHAR	48	15	63
27	S190733027	KADAM KUNAL ASHISH	23	20	43
28	S190733028	KAKADE PRANTEE ARJUN	48	24	72
29	S190733029	KARLE KAMLESH RAJENDRA	30	23	53
30	S190733030	AJAY SUNIL KASABE	13	12	25
31	S190733031	KATE CHANDRASHEKHAR BHAUSAHEB	52	21	73
32	S190733032	DIVYA ZUMBER KAWALE	42	21	63
33	S190733033	KULKARNI PARJANYA PRAVIN	50	23	73
34	S190733034	KUMBHAR AKSHAY VIJAY	54	19	73
35	S190733035	MORE ANURAG CHAURANG	15	12	27
36	S190733036	MOURYA TUSHAR ANIL	29	19	48
37	S190733037	NAIR ANJALI RAJAN	76	24	100
38	S190733038	NARWADE RITESH SANTOSH	23	19	42
39	S190733039	NIKAM VISHAKHA SUDHAKAR	42	23	65
40	S190733040	NISHANT S PAWAR	36	18	54
41	S190733041	PATHARKAR YOGESH PRAKASH	34	12	46
42	S190733042	PARIGHA SANJAY PATIL	45	23	68
43	S190733043	PATIL RUSHIKESH VISHNU	67	20	87
44	S190733044	PATIL SIDDHANT SOMNATH	38	18	56
45	S190733045	PATIL VAIBHAV RAJENDRA	21	18	39
46	S190733046	PAWAR SAMRUDDHI PRAKASH	50	20	70
47	S190733047	PESHAVE MADHURA SANJAY	52	22	74
48	S190733048	PHAD GAYTRI HARIBHAU	36	21	57
49	S190733049	PRATEEK GAJENDRA HAJARE	38	18	56
50	S190733050	RAMBHAD RUSHITA YOGESH	63	19	82
51	S190733051	RASAL KARTIKI SACHIN	63	19	82
52	S190733052	RASAL UDAY SHARAD	55	19	74
53	S190733053	RODE ABHIRAJ PRAVIN	67	20	87
54	S190733054	RODE ASHWINI TANAJI	77	23	100
55	S190733055	RUDRESH RODE	15	14	29
56	S190733056	ROKADE SAKSHI ANIL	48	19	67
57	S190733057	ROLE ROHIT BHIMRAO	29	18	47
58	S190733058	SALEGAONKAR ANAND GOPALRAO	43	18	61

*A. W. W. W.*

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Wagholi, Pune-412 207



59	S190733059	SALUNKE GANESH SHIVAJI	32	18	50
60	S190733060	GUND SANDESH SANTOSH	19	15	34
61	S190733061	SARULE ASHISH DEVICHAND	58	15	73
62	S190733062	SAYYED MUSKAN RASULSAB	65	22	87
63	S190733063	SHARDUL NIKITA NITIN	67	22	89
64	S190733064	SHETE RUTUJA RATAN	53	21	74
65	S190733065	SHINDE SUSHANT RAJENDRA	19	17	36
66	S190733066	SHITOLE SHIVANI MINANATH	62	22	84
67	S190733067	SINGH SUNDARAM BRAJESH	65	24	89
68	S190733068	ARCHANA SHIVAJI SONAWANE	62	20	82
69	S190733069	SONAWANE SHALAKA SUNIL	67	21	88
70	S190733070	SOPANE DNYANESHWARI SAHEBRAO	18	19	37
71	S190733071	TALE PRATIK SUBHASHRAO	74	20	94
72	S190733072	THAKARE SANDESH SHANKAR	34	20	54
73	S190733073	THAKUR ASHUTOSH RAM	39	20	59
74	S190733074	UBALE KUBER ANIL	46	20	66
75	S190733075	WAHUL DIPAK GANESH	28	18	46
76	S190733076	WALKIKAR SANIYA DINESH	48	22	70
77	S190733077	YENGE ANTESHWAR NAMDEV	47	21	68
<b>AVERAGE</b>			<b>43.61</b>	<b>19.58</b>	<b>62.36</b>
<b>NO. STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>			<b>44</b>	<b>76</b>	<b>Threshold= 40% of the Marks</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>77</b>	<b>77</b>	
<b>% ATTAINMENT LEVEL</b>			<b>57.14</b>	<b>98.70</b>	
<b>CO ATTAINMENT</b>			<b>1.00</b>	<b>3.00</b>	

*Atanark*

  
 electronics & Telecommunication  
 Bhivarabai Sawant Institute of  
 Technology & Research  
 Wagholi, Pune- 412 207

SUBJECT: SIGNALS AND SYSTEMS								
CLASS: SE(E&TC)								
AYSEM: 2022-23 SEM-II -								
SUBJECT TEACHER: Dr. Anil Lavman Wansare								
Direct Assessment								
COs	Internal Assessment				External Assessment			OVERALL CO ATTAINMENT = (0.3*A+0.7*B)
	ATTAINMENT OF UT	ATTAINMENT OF ASSGN	ATTAINMENT OF MOCK ORAL	AVERAGE OF CO ATTAINMENT (A)	ATTAINMENT OF UNIVERSITY EXAM MARKS	ATTAINMENT OF UNIVERSITY TW	Average (B)	
CO1	1.00	3.00	3.00	2.33	1.00	3.00	2.00	2.10
CO2	3.00	3.00	3.00	3.00	1.00	3.00	2.00	2.30
CO3	3.00	3.00	3.00	3.00	1.00	3.00	2.00	2.30
CO4	3.00	3.00	3.00	3.00	1.00	3.00	2.00	2.30
CO5	3.00	3.00	3.00	3.00	1.00	3.00	2.00	2.30
CO6	3.00	3.00	3.00	3.00	1.00	3.00	2.00	2.30
					Average			2.27

*Anil Wansare*



Dr. Anil Lavman Wansare  
 Electronics & Telecommunication Dept.  
 Chhatrabai Sahu Institute of  
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SUBJECT: SIGNALS AND SYSTEMS	
CLASS: SE(E&TC)	
AY/SEM: 2022-23 /SEM-II	
SUBJECT TEACHER: Dr. Anil Layman Wamare	

CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
204191.1	2	1	1	-	-	-	-	-	-	-	-	1
204191.2	2	1	1	-	3	-	-	-	-	-	-	2
204191.3	3	2	1	-	1	-	-	-	-	-	-	1
204191.4	3	2	1	1	-	-	-	-	-	-	-	2
204191.5	3	2	1	1	-	-	-	-	-	-	-	2
204191.6	3	2	1	1	2	-	-	-	-	-	-	2
<b>Average</b>	2.67	1.67	1.00	1.00	2.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.67

CO CODE	PSO1	PSO2	PSO3
404189.1	1	2	1
404189.2	2	3	2
404189.3	2	2	3
404189.4	1	-	3
404189.5	2	-	3
404189.6	2	2	3
<b>Average</b>	1.67	2.25	2.50

### POs & PSOs Attainment

PO or PSO=(Weighted Average value of PO\*CO Attainment Average)/3

Weighted Average is average matrix of CO PO PSO Mapping

### RESULT OF PO & PSO ATAINMENT

POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
WEIGHTED AVERAGE	2.67	1.67	1.00	1.00	2.00	0	0	0	0	0	0	1.67	1.67	2.25	2.5
ATTAINMENT LEVEL	2.01	1.26	0.76	0.76	1.51	0.00	0.00	0.00	0.00	0.00	0.00	1.26	1.26	1.70	1.89

*Wamare*

*[Signature]*  
 H. O. D.  
 Electronics & Telecommunication Dept.  
 Chhatrapati Shivaji Maharaj  
 Technology & Research  
 Wagholi, Pune-412 207



# BHIVARABAI SAWANT INSTITUTE OF TECHNOLOGY AND RESEARCH, PUNE

Gate No. 720/1 & 2, Nagar Road, Wagholi, Pune, Maharashtra 412207  
Approved By AICTE, New Delhi, Govt. Of Maharashtra & Affiliated To Savitribai Phule Pune University

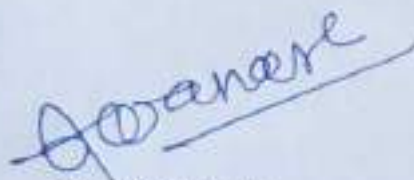
Accredited by NAAC with a B++ grade  
and

NBA accredited programs: Electronics and Telecommunication Engineering, Information Technology and Electrical Engineering

## CLASS-SE E&TC: SEM-II SUBJECT-SIGNALS AND SYSTEMS (A.Y.2022-2023)

### CORRECTIVE ACTION

1. Remedial classes conducted
2. Awareness of Signals analysis by using computational tools like MATLAB and OCTAVE.
3. BSNL Visit will be conducted to get awareness of signals and systems
4. Incorporate practical applications of signals and systems to enhance students' ability to apply theoretical concepts to real-world problems.
5. The hands-on projects, case studies, or industry collaborations.

  
Dr. Anil Wanare  
Subject Teacher

  
Dr. Yogesh Angal  
HoD E&TC Engg.  
Electronics and Telecommunication Dep.  
Shivarabai Sawant Institute of  
Technology & Research  
Wagholi, Pune- 412 207



Accredited by NAAC with a B++ grade  
and

NBA accredited programs: Electronics and Telecommunication Engineering, Information Technology and Electrical Engineering

**Department of Electronics and Telecommunication Engineering**  
**List of Course Outcomes(Current Year)**  
**SE 2019 Course: Academic year: 2022-23, SE Semester I**

Course Code	Name of the Course	Course Outcome Statements
207005	Engineering Mathematics - III	<ul style="list-style-type: none"> <li>Solve higher order linear differential equation using appropriate techniques for modelling, analyzing of electrical circuits and control system</li> <li>Apply concept of Fourier transform &amp; Z-transform and its applications to continuous &amp; discrete systems, signal &amp; image processing and communication systems</li> <li>Obtain Interpolating polynomials, numerically differentiate and integrate functions, numerical solutions of differential equations using single step and multi-step iterative methods used in modern scientific computing.</li> <li>Perform vector differentiation &amp; integration, analyze the vector fields and apply to electro- magnetic fields &amp; wave theory.</li> <li>Analyze Complex functions, Conformal mappings, Contour integration applicable to electrostatics ,digital filters, signal and image processing</li> </ul>
204181	Electronic Circuits	<ul style="list-style-type: none"> <li>Assimilate the physics, characteristics and parameters of MOSFET towards its application as amplifier.</li> <li>Design MOSFET amplifiers, with and without feedback, &amp; MOSFET oscillators, for given specifications</li> <li>Analyze and assess the performance of linear and switching regulators, with their variants, towards applications in regulated power supplies</li> <li>Explain internal schematic of Op-Amp and define its performance parameters</li> <li>Design, Build and test Op-amp based analog signal processing and conditioning circuits towards various real time applications.</li> <li>Understand and compare the principles of various data conversion techniques and PLL with their applications</li> </ul>
204182	Digital Circuits	

		<ul style="list-style-type: none"> <li>• Identify and prevent various hazards and timing problems in a digital design.</li> <li>• Use the basic logic gates and various reduction techniques of digital logic circuit.</li> <li>• Analyze, design and implement combinational logic circuits.</li> <li>• Analyze, design and implement sequential circuits.</li> <li>• Differentiate between Mealy and Moore machines.</li> <li>• Analyze digital system design using PLD</li> </ul>
204183	Electrical Circuits	<ul style="list-style-type: none"> <li>• Analyze the simple DC and AC circuit with circuit simplification techniques.</li> <li>• Formulate and analyze driven and source free RL and RC circuits.</li> <li>• Formulate &amp; determine network parameters for given network and analyze the given network using Laplace Transform to find the network transfer function.</li> <li>• Explain construction, working and applications of DC Machines / Single Phase &amp; Three Phase AC Motors.</li> <li>• Explain construction, working and applications of special purpose motors &amp; understand motors used in electrical vehicles.</li> <li>• Analyze and select a suitable motor for different applications.</li> </ul>
204184	Data Structures	<ul style="list-style-type: none"> <li>• Solve mathematical problems using C programming language</li> <li>• Implement sorting and searching algorithms complexity.</li> <li>• Develop applications of stack and queue using array.</li> <li>• Demonstrate applicability of Linked List.</li> <li>• Demonstrate applicability of nonlinear Binary Tree with respect to its time complexity.</li> <li>• Apply the knowledge of graph for solving spanning tree and shortest path algorithm</li> </ul>

**SE 2019 Course: Academic year: 2022-23, SE Semester II**

Course Code	Name of the Course	Course Outcome Statements
204191	Signals & Systems	<ul style="list-style-type: none"> <li>• Identify, classify basic signals and perform operations on signals.</li> <li>• Identify, Classify the systems based on their properties in terms of input output relation and in terms of impulse response and will be able to determine the convolution between to signals.</li> <li>• Analyze and resolve the signals in frequency domain using Fourier series and Fourier Transform.</li> <li>• Resolve the signals in complex frequency domain using Laplace Transform, and will be able to</li> </ul>



		<p>apply and analyze the LTI systems using Laplace Transforms.</p> <ul style="list-style-type: none"> <li>• Define and Describe the probability, random variables and random signals. Compute the probability of a given event, model, compute the CDF and PDF.</li> <li>• Compute the mean, mean square, variance and standard deviation for given random variables using PDF</li> <li>•</li> </ul>
204192	Control Systems	<ul style="list-style-type: none"> <li>•</li> <li>• Determine and use models of physical systems in forms suitable for use in the analysis and design of control systems.</li> <li>•</li> <li>• Determine the (absolute) stability of a closed-loop control system.</li> <li>• Perform time domain analysis of control systems required for stability analysis.</li> <li>• Perform frequency domain analysis of control systems required for stability analysis.</li> <li>• Apply root-locus, Frequency Plots technique to analyze control systems</li> <li>• Express and solve system equations in state variable form.</li> <li>• Differentiate between various digital controllers and understand the role of the controllers in Industrial automation.</li> <li>•</li> </ul>
204193	Principles of Communication Systems	<ul style="list-style-type: none"> <li>• To compute &amp; compare the bandwidth and transmission power requirements by analyzing time and frequency domain spectra of signal required for modulation schemes under study.</li> <li>• Describe and analyze the techniques of generation, transmission and reception of Amplitude Modulation Systems.</li> <li>• Explain generation and detection of FM systems and compare with AM systems.</li> <li>• Exhibit the importance of Sampling Theorem and correlate with Pulse Modulation technique (PAM, PWM, and PPM).</li> <li>• Characterize the quantization process and elaborate digital representation techniques (PCM, DPCM, DM and ADM).</li> <li>• Illustrate waveform coding, multiplexing and synchronization techniques and articulate their importance in baseband digital transmission</li> </ul>
204194	Object Oriented Programming	<ul style="list-style-type: none"> <li>•</li> <li>• Describe the principles of object oriented</li> </ul>

		<p>programming.</p> <ul style="list-style-type: none"> <li>• Apply the concepts of data encapsulation, inheritance in C++</li> <li>• Understand Operator overloading and friend functions in C++.</li> <li>• Apply the concepts of classes, methods inheritance and polymorphism to write programs C++.</li> <li>• Apply Templates, Namespaces and Exception Handling concepts to write programs in C++.</li> <li>• Describe and use of File handling in C++</li> </ul>
204199	<b>Employability Skills Development</b>	<ul style="list-style-type: none"> <li>• Define personal and career goals using introspective skills and SWOC assessment. Outline and evaluate short-term and long-term goals.</li> <li>• Develop effective communication skills (listening, reading, writing, and speaking), self- management attributes, problem solving abilities and team working &amp; building capabilities in order to fetch employment opportunities and further succeed in the workplace.</li> <li>• Be a part of a multi-cultural professional environment and work effectively by enhancing inter-personal relationships, conflict management and leadership skills.</li> <li>• Comprehend the importance of professional ethics, etiquettes &amp; morals and demonstrate sensitivity towards it throughout certified career.</li> <li>• Develop practically deployable skill set involving critical thinking, effective presentations and leadership qualities to hone the opportunities of employability and excel in the professional environment.</li> </ul>
204200	<b>Project Based Learning</b>	<ul style="list-style-type: none"> <li>• identify the real-world problem (possibly of interdisciplinary nature) through a rigorous literature survey and formulate / set relevant aim and objectives.</li> <li>• Contribute to society through proposed solution by strictly following professional ethics and safety measures.</li> <li>• Propose a suitable solution based on the fundamentals of electronics and communication engineering by possibly the integration of previously acquired knowledge.</li> <li>• Analyze the results and arrive at valid conclusion.</li> <li>• Use of technology in proposed work and demonstrate learning in oral and written form.</li> <li>• Develop ability to work as an individual and as a team member.</li> </ul>

**TE 2019 Course: Academic year: 2022-23, TE Semester I**

Course Code	Name of the Course	Course Outcome Statements
304181	Digital Communication	<ul style="list-style-type: none"> <li>• CO1: Apply the statistical theory for describing various signals in a communication system.</li> <li>• CO2: Understand and explain various digital modulation techniques used in digital communication systems and analyze their performance in presence of AWGN noise.</li> <li>• CO3: Describe and analyze the digital communication system with spread spectrum modulation.</li> <li>• CO4: Analyze a communication system using information theoretic approach.</li> <li>• CO5: Use error control coding techniques to improve performance of a digital communication system</li> </ul>
304182	Electromagnetic Field Theory	<ul style="list-style-type: none"> <li>• CO1: Apply the basic electromagnetic principles and determine the fields (E &amp; H) due to the given source.</li> <li>• CO2: Apply boundary conditions to the boundaries between various media to interpret behavior of the fields on either sides.</li> <li>• CO3: State, Identify and Apply Maxwell's equations (integral and differential forms) in both the forms (Static, time-varying or Time-harmonic field) for various sources, Calculate the time average power density using Poynting Theorem, Retarded magnetic vector potential.</li> <li>• CO4: Formulate, Interpret and solve simple uniform plane wave (Helmholtz Equations) equations, and analyze the incident/reflected/transmitted waves at normal incidence.</li> <li>• CO5: Interpret and Apply the transmission line equation to transmission line problems with load impedance to determine input and output voltage/current at any point on the Transmission line, Find input/load impedance, input/load admittance, reflection coefficient, SWR, <math>V_{max}/V_{min}</math>, length of transmission line using Smith Chart.</li> <li>• CO6: Carry out a detailed study, interpret the relevance and applications of Electromagnetics</li> </ul>
304183	Database Management	<ul style="list-style-type: none"> <li>• CO1: Ability to implement the underlying concepts of a database system.</li> <li>• CO2: Design and implement a database schema for a given problem-domain using data model.</li> </ul>

		<ul style="list-style-type: none"> <li>• CO3: Formulate, using SQL/DML/DDDL commands, solutions to a wide range of query and update problems.</li> <li>• CO4: Implement transactions, concurrency control, and be able to do Database recovery.</li> <li>• CO5: Able to understand various Parallel Database Architectures and its applications.</li> <li>• CO6: Able to understand various Distributed Databases and its applications.</li> </ul>
304184	Microcontroller	<ul style="list-style-type: none"> <li>• CO1: Understand the fundamentals of microcontroller and programming.</li> <li>• CO2: Interface various electronic components with microcontrollers.</li> <li>• CO3: Analyze the features of PIC 18F XXXX.</li> <li>• CO4: Describe the programming details in peripheral support.</li> <li>• CO5: Develop interfacing models according to applications.</li> <li>• CO6: Evaluate the serial communication details and interfaces.</li> </ul>
304185 (A):	Digital Signal Processing (Elective - I)	<ul style="list-style-type: none"> <li>• CO1: Interpret and process discrete/ digital signals and represent DSP system.</li> <li>• CO2: Analyze the digital systems using the Z-transform techniques.</li> <li>• CO3: Implement efficient transform and its application to analyze DT signals.</li> <li>• CO4: Design and implement IIR filters.</li> <li>• CO5: Design and implement FIR filters.</li> <li>• CO6: Apply DSP techniques for speech/ biomedical/ image signal processing</li> </ul>
304185 (B):	Electronic Measurements (Elective - I)	<ul style="list-style-type: none"> <li>• CO1: Understand the metrics for the measurement system</li> <li>• CO2: Select and use the instruments for measurement &amp; analysis of basic electronic parameters</li> <li>• CO3: Identify and use the different signal generators for specific applications</li> <li>• CO4: Understand the principles of different Oscilloscopes for specific applications</li> <li>• CO5: Identify the use of other display devices, recorders and timer/counter in measurement systems</li> <li>• CO6: Use the advanced measurement systems for electronics parameter measurement</li> </ul>
304185 (C):	Fundamentals of JAVA Programming (Elective - I)	<ul style="list-style-type: none"> <li>• CO1: Understand the basic principles of Java programming language</li> <li>• CO2: Apply the concepts of classes and objects to write programs in Java</li> <li>• CO3: Demonstrate the concepts of methods &amp; Inheritance</li> <li>• CO4: Use the concepts of interfaces &amp; packages for program implementation</li> <li>• CO5: Understand multithreading and Exception handling in Java to develop robust programs</li> </ul>

		<ul style="list-style-type: none"> <li>• CO6: Use Graphics class, AWT packages and manage input and output files in Java</li> </ul>
304185 (D):	Computer Networks (Elective - I)	<ul style="list-style-type: none"> <li>• CO1: Design LAN using appropriate networking architecture, topologies, transmission media, and networking devices.</li> <li>• CO2: Understand the working of controlling techniques for flawless data communication using data link layer protocols.</li> <li>• CO3: Learn the functions of network layer, various switching techniques and internet protocol addressing.</li> <li>• CO4: Explore various interior and exterior, unicasting and multicasting protocols.</li> <li>• CO5: Analyze data flow using TCP/UDP Protocols, congestion control techniques for QoS.</li> <li>• CO6: Illustrate the use of protocols at application layer.</li> </ul>
304190	Skill Development	<ul style="list-style-type: none"> <li>• CO1: Student should recognize the need to engage in independent and life-long learning in required skill sets</li> <li>• CO2: Student needs to experience the impact of industries on society by visiting different industries and understand the importance of industrial products for analog and digital circuits and systems.</li> <li>• CO3: Student has to make use of the modern electronic and IT Engineering Tools and Technologies for solving electronic engineering problems.</li> <li>• CO4: Student would be able to communicate effectively at different technical and administrative levels.</li> <li>• CO5: Student will exhibit leadership skills both as an individual and as a member in a team in multidisciplinary environment.</li> </ul>

**TE 2019 Course: Academic year: 2022-23, TE Semester II**

Course Code	Name of the Course	Course Outcome Statements
304192	Cellular Networks	<ul style="list-style-type: none"> <li>• CO1: Understand fundamentals of wireless communications.</li> <li>• CO2: Discuss and study OFDM and MIMO concepts.</li> <li>• CO3: Elaborate fundamentals mobile communication.</li> <li>• CO4: Describes aspects of wireless system planning.</li> <li>• CO5: Understand of modern and futuristic wireless networks architecture.</li> <li>• CO6: Summarize different issues in performance analysis.</li> </ul>
304193	Project Management	<ul style="list-style-type: none"> <li>• CO1: Apply the fundamental knowledge of project management for effectively handling the projects.</li> <li>• CO2: Identify and select the appropriate project based on</li> </ul>

		<p>feasibility study and undertake its effective planning.</p> <ul style="list-style-type: none"> <li>• CO3: Assimilate effectively within the organizational structure of project and handle project management related issues in an efficient manner.</li> <li>• CO4: Apply the project scheduling techniques to create a Project Schedule Plan and accordingly utilize the resources to meet the project deadline.</li> <li>• CO5: Identify and assess the project risks and manage finances in line with Project Financial Management Process.</li> <li>• CO6: Develop new products assessing their commercial viability and develop skillsets for becoming successful entrepreneurs while being fully aware of the legal issues related to Product development and Entrepreneurship.</li> </ul>
304194	Power Devices & Circuits	<ul style="list-style-type: none"> <li>• CO1: To differentiate based on the characteristic parameters among SCR, GTO, MOSFET &amp; IGBT and identify suitability of the power device for certain applications and understand the significance of device ratings.</li> <li>• CO2: To design triggering / driver circuits for various power devices.</li> <li>• CO3: To evaluate and analyze various performance parameters of the different converters and its topologies.</li> <li>• CO4: To understand significance and design of various protections circuits for power devices.</li> <li>• CO5: To evaluate the performance of uninterruptible power supplies, switch mode power supplies and battery.</li> <li>• CO6: To understand case studies of power electronics in applications like electric vehicles, solar systems etc.</li> </ul>
304195 (A):	Digital Image Processing (Elective - II)	<ul style="list-style-type: none"> <li>• CO1: Apply knowledge of mathematics for image understanding and analysis.</li> <li>• CO2: Implement spatial domain image operations.</li> <li>• CO3: Design and realize various algorithms for image segmentation.</li> <li>• CO4: Design and realize various algorithms for image Compression.</li> <li>• CO5: Apply restoration to remove noise in the image.</li> <li>• CO6: Describe the object recognition system.</li> </ul>
304195 (B):	Sensors in Automation (Elective - II)	<ul style="list-style-type: none"> <li>• CO1: Understand the Concepts of Sensors/Transducers, classify and evaluate static and Dynamic Characteristics of Measurement Systems.</li> <li>• CO2: Choose the proper sensor comparing different standards and guidelines for measurements of Temperature and Humidity.</li> <li>• CO3: Choose the proper sensor comparing different standards and guidelines for measurements of Force, Pressure, Stress and Flow</li> <li>• CO4: Choose the proper sensor comparing different standards and guidelines for measurements of Displacement, Vibration, Acceleration and Level</li> <li>• CO5: Explore sensors to profound areas like</li> </ul>

		<p>environmental, Agricultural and bio-medical equipment and sustainability.</p> <ul style="list-style-type: none"> <li>• CO6: Explore IoT based applications of Sensors and Transducers.</li> </ul>
304195 (C)	Advanced JAVA Programming (Elective - II)	<ul style="list-style-type: none"> <li>• CO1: Design and develop GUI applications using Applets.</li> <li>• CO2: Apply relevant AWT/ swing components to handle the given event.</li> <li>• CO3: Design and develop GUI applications using Abstract Windowing Toolkit (AWT), Swing and Event Handling.</li> <li>• CO4: Learn to access database through Java programs, using Java Database Connectivity (JDBC)</li> <li>• CO5: Invoke the remote methods in an application using Remote Method Invocation (RMI)</li> <li>• CO6: Develop program for client /server communication using Java Networking classes.</li> </ul>
304195 (D)	Embedded Processors (Elective - II)	<ul style="list-style-type: none"> <li>• CO1: Understand basics of Embedded C Programming and usage of Embedded C and study different software tools for programming microcontrollers.</li> <li>• CO2: Get acquainted with various Embedded Processor architectures related to industrial application.</li> <li>• CO3: Know about the programming of ARM 7 based microcontroller with on chip peripherals and external peripherals.</li> <li>• CO4: Understand the architectures of ARM Cortex M4 Microcontrollers and its advantages over ARM 7 Microcontrollers.</li> <li>• CO5: Implement the real world programming of ARM 7 based microcontroller with on chip peripherals and external peripherals.</li> <li>• CO6: Recognize the interfacing of real world sensors and standard buses. Will also able to design different case studies.</li> </ul>
304195 (E)	Network Security (Elective-II)	<ul style="list-style-type: none"> <li>• CO1: Analyze attacks on computers and computer security.</li> <li>• CO2: Demonstrate knowledge of cryptography techniques.</li> <li>• CO3: Illustrate various Symmetric and Asymmetric keys for Ciphers</li> <li>• CO4: Evaluate different Message Authentication Algorithms and Hash Functions</li> <li>• CO5: Get acquainted with various aspects of E-Mail Security</li> <li>• CO6: Assimilate various aspects of Web Security</li> </ul>
304199	Internship	<ul style="list-style-type: none"> <li>• CO1: To develop professional competence through internship.</li> <li>• CO2: To apply academic knowledge in a personal and professional environment.</li> <li>• CO3: To build the professional network and expose students to future employees.</li> <li>• CO4: Apply professional and societal ethics in their day to day life.</li> <li>• CO5: To become a responsible professional having social,</li> </ul>

		<p>economic and administrative considerations.</p> <ul style="list-style-type: none"> <li>• CO6: To make own career goals and personal aspirations</li> </ul>
304200	Mini Project	<ul style="list-style-type: none"> <li>• CO1: Understand, plan and execute a Mini Project with team.</li> <li>• CO2: Implement electronic hardware by learning PCB artwork design, soldering techniques, testing and troubleshooting etc.</li> <li>• CO3: Prepare a technical report based on the Mini project.</li> <li>• CO 4: Deliver technical seminar based on the Mini Project work carried out</li> </ul>

**BE 2019 Course: Academic year: 2022-23, BE Semester I**

Course Code	Name of the Course	Course Outcome Statements
404181	Radiation and Microwave Theory	<ul style="list-style-type: none"> <li>• CO1: Apply the fundamentals of electromagnetic to derive free space propagation equation and distinguish various performance parameters of antenna.</li> <li>• CO2: Identify various modes in the waveguide. Compare: coaxial line, rectangular waveguides &amp; striplines and identify applications of the same.</li> <li>• CO3: Explore construction and working of principles passive microwave devices/components.</li> <li>• CO4: Explore construction and working of principles active microwave devices/components.</li> <li>• CO5: Analyze the structure, characteristics, operation, equivalent circuits and applications of various microwave solid state active devices.</li> <li>• CO6: Know the various microwave systems, device set ups of microwave measurement devices and Identify the effect of radiations on environmental sustainability</li> </ul>
404182	VLSI Design and Technology	<ul style="list-style-type: none"> <li>• CO1: Develop effective HDL codes for digital design.</li> <li>• CO2: Apply knowledge of real time issues in digital design.</li> <li>• CO3: Model digital circuit with HDL, simulate, synthesis and prototype in PLDs.</li> <li>• CO4: Design CMOS circuits for specified applications.</li> <li>• CO5: Analyze various issues and constraints in design of an ASIC. CO6: Apply knowledge of testability in design and Build In Self Test (BIST) circuit.</li> </ul>
404183	Cloud Computing	<ul style="list-style-type: none"> <li>• CO1: Understand the basic concepts of Cloud Computing.</li> <li>• CO2: Describe the underlying principles of different Cloud Service Models.</li> <li>• CO3: Classify the types of Virtualization.</li> <li>• CO4: Examine the Cloud Architecture and understand the importance of Cloud Security.</li> <li>• CO5: Develop applications on Cloud Platforms. CO6: Evaluate distributed computing and the Internet of Things</li> </ul>
404184 (A)	Speech Processing (Elective -	<ul style="list-style-type: none"> <li>• CO1: Understand basics of Human speech production mechanism.</li> <li>• CO2: Classify speech sounds based on acoustic and</li> </ul>



	III)	<p>articulatory phonetics.</p> <ul style="list-style-type: none"> <li>• CO3: Analyse speech signal to extract the characteristic of vocal tract (formants) and vocal cords (pitch).</li> <li>• CO4: Evaluate speech signal for extracting LPC and MFCC Parameters of speech signal.</li> <li>• CO5: Implement algorithms for processing of speech and audio signals considering the properties of acoustic signals.</li> <li>• CO6: Design speech recognition application for speech signal analysis.</li> </ul>
404184 (B)	PLC SCADA and Automation (Elective - III)	<ul style="list-style-type: none"> <li>• CO1: Understand and Recognize Industrial Control Problems.</li> <li>• CO2: Analyze &amp; explain different hardware functions of PLC.</li> <li>• CO3: Develop Ladder Programming in PLC and PLC Interface in real time applications.</li> <li>• CO4: Explore and interpret functionality of SCADA.</li> <li>• CO5: Identify and interpret the functionality of DCS.</li> <li>• CO6: Define and explain CNC machines and Applications of Industrial Protocols</li> </ul>
404184 (C)	Java Script (Elective - III)	<ul style="list-style-type: none"> <li>• CO1: Use basic features of java script.</li> <li>• CO2: Use relevant data types for developing application in java script. CO3: Use the function and objects as self-contained, with data passing in and out through well-defined interfaces in development of small systems.</li> <li>• CO4: Apply the regular expression for Text matching and manipulation. CO5: Explore use of the various aspects of JavaScript object models that are fundamental to the proper use of the language.</li> <li>• CO6: Develop the application using windows controlling and form handling</li> </ul>
404184 (D)	Embedded System & RTOS (Elective - III)	<ul style="list-style-type: none"> <li>• CO1: Apply design metrics of Embedded systems to design real time applications to match recent trends in technology.</li> <li>• CO2: Apply Real time systems concepts.</li> <li>• CO3: Evaluate <math>\mu</math>COS operating system and its services.</li> <li>• CO4: Apply Embedded Linux Development Environment and testing tools.</li> <li>• CO5: Analyze Linux operating system and device drivers.</li> <li>• CO6: Analyze the hardware – software co design issues for testing of real time Embedded system</li> </ul>
404184 (E)	Modernized IoT (Elective - III)	<ul style="list-style-type: none"> <li>• CO1: Comprehend and analyze concepts of sensors, actuators, IoT and IoE.</li> <li>• CO2: Interpret IoT Architecture Design Aspects.</li> <li>• CO3: Comprehend the operation of IoT protocols.</li> <li>• CO4: Describe various IoT boards, interfacing, and programming for IoT.</li> <li>• CO5: Illustrate the technologies, Catalysts, and precursors of IIoT using suitable use cases.</li> <li>• CO6: Provide suitable solution for domain specific applications of IoT.</li> </ul>
404185	Data	<ul style="list-style-type: none"> <li>• CO1: Understand the process of data mining and</li> </ul>

(A)	Mining (Elective - IV)	<p>performance issues in data mining</p> <ul style="list-style-type: none"> <li>•</li> <li>• CO2: Apply data preprocessing techniques to the historical data collected in data warehouse</li> <li>• CO3: Analyze various types of Frequent pattern analysis methods and advanced Pattern mining techniques</li> <li>• CO4: Evaluate various data mining algorithms for developing effective data mining models</li> <li>• CO5: Analyze different clustering and outlier detection methods</li> <li>• CO6: Design data mining models in different mining application areas</li> </ul>
404185 (B)	Electronics Product Design (Elective - IV)	<ul style="list-style-type: none"> <li>• CO1: Understand and explain design flow of design of electronics product.</li> <li>• CO2: Associate with various circuit design issues and testing.</li> <li>• CO3: Inferring different software designing aspects and the Importance of product test &amp; test specifications.</li> <li>• CO4: Summarizing printed circuit boards and different parameters. CO5: Estimating assorted product design aspects.</li> <li>• CO6: Exemplifying special design considerations and importance of documentation.</li> </ul>
404185 (B)	Deep Learning (Elective - IV)	<ul style="list-style-type: none"> <li>• CO1: Classify machine learning algorithms and its types.</li> <li>• CO2: Discuss the concepts of deep learning and its Frameworks.</li> <li>• CO3: Identify the deep learning architectures with respect to the applications.</li> <li>• CO4: Demonstrate different architectures of Convolutional neural networks.</li> <li>• CO5: Discuss natural language processing architectures.</li> <li>• CO6: Make use of various case studies and deep learning applications</li> </ul>
404185 (D)	Low Power CMOS (Elective - IV)	<ul style="list-style-type: none"> <li>• CO1: Explain the sources of power dissipation in CMOS.</li> <li>• CO2: Classify the special techniques to mitigate the power consumption in CMOS circuits.</li> <li>• CO3: Summarize the power optimization and trade off techniques in digital circuits.</li> <li>• CO4: Illustrate the power estimation at logic and circuit level.</li> <li>• CO5: Explain the software design for low power in various level.</li> <li>• CO6: Use the CAD tools for low power synthesis.</li> </ul>
404185 (E)	Smart Antennas (Elective - IV)	<ul style="list-style-type: none"> <li>• CO1: Compare various linear wire antenna and uniform array in terms of antenna parameters and analyze them based on the current distribution and identify an appropriate wire antenna for given application.</li> <li>• CO2: Classify Microstrip &amp; re-configurable antenna and techniques. CO3: Describe smart antenna systems and discuss the beam steering and mutual coupling effects.</li> <li>• CO4: Explain DOA estimation methods and classify.</li> <li>• CO5: Classify the beam forming methods.</li> </ul>

		<ul style="list-style-type: none"> <li>• CO6: Describe and Compare MIMO systems.</li> </ul>
404188	Project Phase – I	<ul style="list-style-type: none"> <li>• CO1: Demonstrate a sound technical knowledge in field of E&amp;TC in the form of project.</li> <li>• CO2: Undertake real life problem identification, formulation and solution.</li> <li>• CO3: Design engineering solutions to complex problems utilizing a systematic approach.</li> <li>• CO4: Demonstrate the knowledge, effective communication skills and attitudes as professional engineer</li> </ul>

### **BE 2019 Course: Academic year: 2022-23, SE Semester II**

<b>Course Code</b>	<b>Name of the Course</b>	<b>Course Outcome Statements</b>
404190	Fiber Optic Communication	<ul style="list-style-type: none"> <li>• CO1: Explain the working of components and measurement equipments in optical fiber networks.</li> <li>• CO2: Calculate the important parameters associated with optical components used in fiber optic telecommunication systems.</li> <li>• CO3: Compare and contrast the performance of major components in optical links.</li> <li>• CO4: Evaluate the performance viability of optical links using the power and rise time budget analysis.</li> <li>• CO5: Design digital optical link by proper selection of components and check its viability using simulation tools.</li> <li>• CO6: Compile technical information related to state of art components, standards, simulation tools and current technological trends by accessing the online resources to update their domain knowledge.</li> </ul>
404191 (A)	Biomedical Signal Processing (Elective - V)	<ul style="list-style-type: none"> <li>• CO1: Describe the origin of various biomedical signals and Interpret the meaning of various parameters associated with biomedical signals</li> <li>• CO2: Analyze ECG Signals with extraction of meaningful information</li> <li>• CO3: Explain Processing of EEG signals for Diseases of Central Nervous System</li> <li>• CO4: Analyze EMG signals for understanding Neuromuscular Diseases</li> <li>• CO5: Analyze various Biomedical Signals</li> <li>• CO6: Process the biomedical signals to remove adaptive interference and noise</li> </ul>
404191 (B)	Industrial Drives & Control (Elective - V)	<ul style="list-style-type: none"> <li>• CO1: Understand significance and design of various components of electrical drives.</li> <li>• CO2: Develop, evaluate and analyze the performance of DC motor drives.</li> <li>• CO3: Design, estimate and examine the performance of chopper controlled DC drives.</li> <li>• CO4: Adapt, choose and categorize performance of PWM inverter drives for Induction motors.</li> </ul>

		<ul style="list-style-type: none"> <li>• CO5: Elaborate, interpret and analyze the performance of Synchronous motor drive.</li> <li>• CO6: Develop, explain and examine performance of stepper motor control.</li> </ul>
404191 (C)	Android Development (Elective - V)	<ul style="list-style-type: none"> <li>• CO1: Describe the process of developing mobile applications.</li> <li>• CO2: Create mobile applications on the different android platform. CO3: Design and implement mobile applications involving data storage in databases.</li> </ul>
404191 (D)	Embedded System Design (Elective - V)	<ul style="list-style-type: none"> <li>• CO1: Apply the design aspects of Embedded system.</li> <li>• CO2: Create and debug a firmware for the Embedded System using ARM Cortex M4.</li> <li>• CO3: Develop a specific software code for the functionality of the Embedded System.</li> <li>• CO4: Utilize an open source RTOS for embedded system design.</li> <li>• CO5: Design an advanced embedded system.</li> <li>• CO6: Explore Embedded Android system.</li> </ul>
404191 (E)	Mobile Computing (Elective - V)	<ul style="list-style-type: none"> <li>• CO1: Understand concepts of Mobile Communication.</li> <li>• CO2: Analyse next generation Mobile Communication System.</li> <li>• CO3: Understand network layers of Mobile Communication.</li> <li>• CO4: Understand IP and Transport layers of Mobile Communication. CO5: Study of different mathematical models.</li> <li>• CO6: Understand different mobile applications.</li> </ul>
404192 (A)	System on Chip (Elective - VI)	<ul style="list-style-type: none"> <li>• CO1: Understand the basic concepts and architecture of SOC.</li> <li>• CO2: Understand the basic terminology of Verilog HDL programming. CO3: Apply the various Verilog modeling styles in writing the design and testbench codes.</li> <li>• CO4: Understand the basic steps used in the VLSI Physical Design.</li> <li>• CO5: Understand the basic architecture of various processors used in SOC.</li> <li>• CO6: Understand the working principle of various Buses and memory used in SOC.</li> </ul>
404192 (B)	Nanoelectronic s (Elective - VI)	<ul style="list-style-type: none"> <li>• CO1: Understand the fundamental knowledge behind nanotechnology. CO2: Understand to Nano-CMOS technology.</li> <li>• CO3: Explore various Nanoelectronics material.</li> <li>• CO4: Understand the importance of carbon nanotubes.</li> <li>• CO5: Understand Nanomaterial and Nanodevice fabrication.</li> <li>• CO6: Understand various applications of Nanotechnology in Electronics.</li> </ul>
404192 (C)	Remote Sensing (Elective - VI)	<ul style="list-style-type: none"> <li>• CO1: Describe the concepts of remote sensing and electromagnetic radiation interaction.</li> <li>• CO2: Explain the sensors characteristics and analyze its resolution.</li> </ul>

		<ul style="list-style-type: none"> <li>• CO3: Classify different types of satellite data products and design various color composites.</li> <li>• CO4: Describe the fundamentals of microwave remote sensing.</li> <li>• CO5: Analyze GNSS signal structure and augmentation systems.</li> <li>• CO6: Demonstrate and describe real life applications of remote sensing</li> </ul>
404192 (D)	Digital Marketing (Elective - VI)	<ul style="list-style-type: none"> <li>• CO1: Design websites using free tools like Wordpress and explore it for digital marketing.</li> <li>• CO2: Apply various keywords for a website &amp; to perform SEO.</li> <li>• CO3: Understand the various SEM Tools and implement the Digital Marketing Tools.</li> <li>• CO4: Illustrate the use of Facebook, Instagram and Youtube for Digital Marketing in real life.</li> <li>• CO5: Use Linked in platform for various campaigning.</li> <li>• CO6: Understand the importance of recent trends in digital marketing</li> </ul>
404193	Innovation and Entrepreneurship	<ul style="list-style-type: none"> <li>• CO1: Understand Innovation, Entrepreneurship and characteristics of an entrepreneur.</li> <li>• CO2: Develop a strong understanding of the Design Process and its application in variety of business settings.</li> <li>• CO3: Generate sustainable ideas.</li> <li>• CO4: Explore various processes required to be an entrepreneur.</li> <li>• CO5: Understand patents and its process of filing.</li> <li>• CO6: Choose and use appropriate social media for marketing</li> </ul>
404194	Digital Business Management	<ul style="list-style-type: none"> <li>• CO1: Identify drivers of digital business.</li> <li>• CO2: Illustrate various approaches and techniques for E-business and management.</li> <li>• CO3: Prepare E-business plan.</li> </ul>



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**Department of Electrical Engineering**  
**2.6.2 Attainment of Course Outcomes**

**Academic Year AY 2022-23 Reports**

**Report: REPORT OF EVALUTION OF CO-PO**



**2.6.2 Attainment of Course Outcomes**

**2.6.2.1. Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based**

**ASSESSMENT PROCESS FOR DATA COLLECTION**

- Assessment of course outcomes is the key aspect in Outcome-Based Education. The Course Outcomes (CO's) for each course are defined based on the content developed during the syllabus framing workshop conducted by affiliating university. At the end of each course, the COs needs to be assessed and evaluated, to check whether it has been attained or not.
- Direct Attainment of COs is measured on the basis of external and internal assessment tools with weightage of 70% and 30% respectively. 80% of the direct attainment will be considered for the overall PO attainment calculations.
- Internal and External assessment tools basically reflect the student's performance and provide the data required for calculation of CO, PO and PSO.

Figure 2.6.2.1 shows the assessment processes used to gather the data upon which the evaluation of Course Outcome is based.

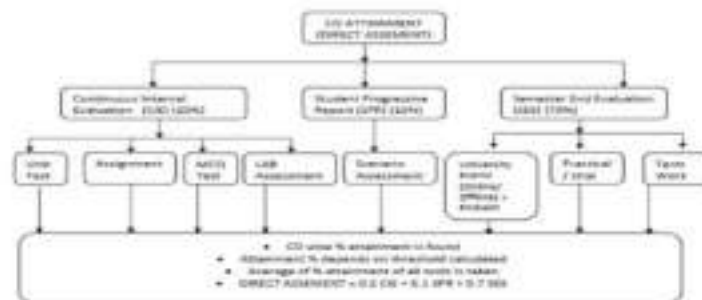


Fig. 2.6.2.1 CO Attainment through direct assessment tool.



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Depending upon the course structure the assessment tools and their weightage in evaluation of COs is as given in table 2.6.2.1

**Table 2.6.2.1 Assessment tools and their weightage in evaluation of COs**

Assessment tools and its weightage in overall attainment of Cos				
SR. NO	ASSESSMENT TOOLS	CIE	SPR	SPPU
1	Course assessed by Internal and SPPU exam	30%		70%
2	Course assessed by Internal exam, Lab and SPPU exam	30%		70%
3	Course assessed by Internal exam, Lab, scenario Assignment etc. and SPPU exam	20%	10%	70%
4	Course assessed by co and extra-curricular activities only-Audit Course		100%	

Tools used to gather the data for CO Attainment evaluation:

Following two processes are used to gather the data for CO Attainment evaluation

- Internal assessment which includes direct assessment and indirect assessment
- External assessment by affiliating university

Table 2.6.2.2 shows internal direct assessment tools to gather the data for CO Attainment evaluation

**Table 2.6.2.2 Internal direct assessment tools**

DIRECT ASSESSMENT		
Sl. No.	CIE TOOLS	Description
1	UNIT TEST	For second year engineering students, three unit tests each of 20 marks, will be conducted after completion of every 2 units. For third year & final year engineering students, the department will conduct two unit tests after completion of every 3 units, each of 30marks. The entire exam schedule will be monitored by unit test coordinator.  The subject teachers will prepare the Question papers for the respective subject, where each question shall be mapped



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		with CO, PI and BL and will be submitted to UT coordinator well in advance.
		The subject teachers will evaluate the performance of students as per the assessment rubrics and submit marks sheets to the UT coordinator in a prescribed format.
		The student obtaining less than threshold (average marks of the class) marks are identified and proceed for Corrective and Preventive Action.
2	ASSIGNMENTS	After the completion of each unit, subject teachers will provide assignments which include the questions based on CO of the respective unit. Each assignment carries 10 marks.
		Marks are allotted based on- in time completion, discipline and number of questions attempted.
3	MCQs Test	MCQ Test is conducted for 10 marks after completion of each unit. The entire Examination shall be conducted online/offline mode and schedule of the exam will be monitored by Internal Exam coordinator.
		The subject teachers will prepare the Multiple-choice Question papers for the respective subject based on the respective Cos and will be submitted to Internal Exam coordinator well in advance.
		The subject teachers will evaluate the performance of students as per the assessment rubrics and submit marks sheets to the Internal Exam coordinator in a prescribed format. The student obtaining less than threshold is identified and proceeds for Corrective and Preventive Action.



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4	MOCK ORAL	Mock oral is conducted after the completion of all lab experiments/Assignments of the respective course, of 25 marks for first year students.
		In mock oral test, students are asked questions based on the experiments/Assignments conducted. Each question carries 1 mark or 2 Marks. Subject teacher or Lab in charge prepares a final Term work sheet based on the responses of students and submit to Departmental Academic Coordinator. The student obtaining less than 65% of the maximum marks are identified and proceed for Corrective and Preventive Action
5	LAB ASSESSMENT	Laboratory in-charge faculties will follow the rubrics, which is set by the department for the evaluation of laboratory experiments/programs. Each experiment/program is assessed for 25 marks. Final marks will be of 25 which is an average of all the experiments.
6	PRELIM	FE department will conduct Prelim Examination before the end sem exams, for 50 marks based on entire syllabus. The entire Examination schedule will be monitored by Internal Exam coordinator.
		The subject teachers will prepare the Question papers for the respective subject and will be submitted to Internal Exam coordinator well in advance.
		The subject teachers will evaluate the performance of students as per the assessment rubrics and submit marks sheets to the Internal Exam coordinator in a prescribed format.
		The student obtaining less than threshold marks are identified and proceed for Corrective and Preventive Action



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7	SEMINARS	The Department selects an experienced senior faculty member as a Seminar coordinator.
		Seminar Coordinator along with the allotted guides, assess the technical seminar presentations by students.
		They should ensure that the students choose advanced concepts in Electrical Engineering or related fields.
		One seminar presentation per student in the V semester would be conducted as per the schedule mentioned prior in Time Table.
		Seminar coordinators follow rubrics, which is set by the department for evaluation of seminar.
8	PROJECT	Project coordinator will form the project batches.
		Synopsis will be submitted to the project coordinators for scrutinizing.
		Project Batches are allotted to the internal guides based on the specialization and competency skills of the faculties.
		Each internal guide will continuously monitor their students on a weekly basis in a scheduled time to observe the progress of the work.
Sl. No.	S.E.E TOOLS	Description
1	UNIVERSITY THEORY EXAMS	For FE and SE, university exams will be conducted by considering 50 Marks online exam (Based on first 4units) and 50 marks end-sem (Based on all six units)  For TE and BE, University theory exams will be conducted in two parts- in-sem of 30 marks (Based on first three units) and



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Rubrics considered for Seminar work is as shown in table 2.6.2.4

Table. 2.6.2.4 Rubrics for evaluation of seminar

Parameters	Marks (50)	Marks Distribution
Regularity	10	<p><b>High=8-10</b>, (Attendance of seminar hours with <math>\geq 75\%</math>)</p> <p><b>Moderate= 4-7</b>, (Attendance of seminar hours with <math>\geq 50\%</math> and <math>&lt; 75\%</math>)</p> <p><b>Low=0-3</b>, (Attendance of seminar hours with <math>&lt; 50\%</math>)</p>
Quality of report	15	<p><b>High=11-15</b>, (High neatness with relevant contents as per the prescribed format)</p> <p><b>Moderate=6-10</b>, (Less neatness, less relevant matter or contents, Missing formats)</p> <p><b>Low=0-5</b>, (More non relevant contents, Missing formats, No neatness)</p>
Quality of the presentation	15	<p><b>High=11-15</b>, (Well organised slides with complete and relevant contents, smart presentation, easy to understand)</p> <p><b>Moderate=6-10</b>, (Slides with partially essential contents, not so easy to understand, not much attractive)</p> <p><b>Low=0-5</b>, (Includes very less essential contents, spelling errors, less knowledge of presentation)</p>



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Communication	5	<p><b>High=4,5</b> (Sequential fluency in presentation which can be easily understood with all essential contents relevant to the topic)</p> <p><b>Moderate=2,3</b>(Sequential fluency in presentation but missing content relevant to the topic)</p> <p><b>Low=0-1</b>, (Unorganised, irrelevant presentation with inefficient communication)</p>
Response to the Questions	5	<p><b>High=4,5</b> (Confident, justified answers, responded more than 70% questions)</p> <p><b>Moderate=2,3</b> (Less confident, responded about 50% questions, moderate defence level)</p> <p><b>Low=0-1</b>, (Very low confident, struggled to answer for the questions, defence level is low)</p>



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Rubrics considered for Term work is as shown in table 2.6.2.5

Table. 2.6.2.5 Rubrics for evaluation of Term work

Parameters	Marks (50)	Marks Distribution
Timely Submission	10	<p><b>High=8-10</b>(Submission of write up of every experiment on or before due date.)</p> <p><b>Moderate= 4-7</b> (Submission after due date and within a week.)</p> <p><b>Low=0-3</b>(Submission after 2 or more weeks of due date)</p>
Quality of Journal & content of Submission	20	<p><b>High=16-20</b>, (High neatness with relevant contents like aim, diagrams, calculations, results and conclusions.)</p> <p><b>Moderate=9-15</b>, (Less neatness and/or improper contents like aim, diagrams, calculations, results and conclusions)</p> <p><b>Low=0-8</b>, (Submission with wrong contents)</p>
Level of Understanding	20	<p><b>High=16-20</b> (Students answered for more than 70%)</p> <p><b>Moderate=9-15</b>(Students answered for 40-60% of questions)</p> <p><b>Low=0-8</b>(Students answered for less than 40% questions)</p>



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2.6.2.2. Record the attainment of Course Outcomes of all courses with respect to set attainment levels

A) CO Attainment of sample course C407 SGP 2018-19 Batch.

**TARGET & ATTAINMENT LEVELS OF CO**

- Attainment levels considered for evaluation of attainment of course outcomes are as follows. Threshold marks are the average of the marks scored by students in a particular tool for a given course. All the assessment tools used for evaluation of attainment of course outcomes are already explained 2.6.2.1

**ATTAINMENT LEVELS:**

**LEVEL 1:** Less than 50% students scoring more than the threshold marks.

**LEVEL 2:** 50% to 74% students scoring more than threshold marks.

**LEVEL 3:** 75% to 100% students scoring more than threshold marks.

- For setting the target level for CIE, SPR and SEE tools we have framed following policies



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DEPARTMENT OF ELECTRICAL ENGINEERING						
TARGET SETTING POLICY FOR CE/SPE and SEE						
NOTE: 1. The Target and Attainment values, considered for the calculations are just examples. Real values should be considered for the actual calculation.						
2. Initial Attainment Target for OBE implemented batches are as follows: SE (2016-17)- 60%, TE (2017-18)- 65%, BE (2018-19)-70%						
3. For the demo calculation we considered SE (2016-17). Same rules should be followed for TE (2017-18), BE(2018-19) also.						
TARGET FOR CONTINUOUS INTERNAL EVALUATION (CIE)						
CLASS-CAT	TOOL	CASE	TARGET	STATUS	ATTN %	WHAT IS THE TARGET FOR NEXT YEAR?
SE 2016-17	CE/SPE	1	60 (INITIALLY SET)	Attainment is less than 50% Tolerance of the Target, i.e. less than 30-10% of 60=30	-54	Don't increase the Target for next year i.e. Target for 2017-18=60
		2	62 (INITIALLY SET)	Attainment is greater than or equal to 50% Tolerance of the Target, i.e. greater than or equal to 30	+54 149.54	Target=50% Rise in Avg of 60 & 62 i.e. 10% of (60+62)/2 + 50 = 5 So, Target=(60+62)/2 + 5 = 66.5 + 5 = 71.5
SE 2017-18	CE/SPE	1	67 (from 2016-17 case 2)	Attainment is greater than or equal to 10% Tolerance of the Target i.e. greater than or equal to 6.7	+60 147.20	Target=10% Rise in Avg of 67 & 60 i.e. 10% of (67+60)/2 + 6 = 3 So, Target=(67+60)/2 + 3 = 75
TARGET FOR SEMESTER END EVALUATION (SEE)						
CLASS-CAT	TOOL	CASE	TARGET %	STATUS	ATTN %	WHAT IS THE TARGET FOR NEXT YEAR?
SE 2016-17	SEE	1	Avg of 2016-17 (i.e. 2016-16 (60) & 2017-17 (62)) = 61	Attainment is less than 50% Tolerance of the Target, i.e. less than 30-10% of 61=6.1	-47	Don't increase the Target for next year i.e. Target for 2017-18=61
		2	Avg of 2016-17 (i.e. 2016-16 (60) & 2017-17 (62)) = 61	Attainment is greater than 50% Tolerance of the Target, i.e. greater than 30-10% of 61=6.1	+47 149.54	Target=10% Rise in Avg of 61 & 60 i.e. 10% of (61+60)/2 + 5.0 = 5 So, Target=(61+60)/2 + 5 = 55.5 + 5 = 60.5
SE 2017-18	SEE	1	66 (from 2016-17 case 2)	Attainment is greater than 50% Tolerance of the Target, i.e. greater than 30-10% of 66=6.6	+60 147.20	Target=10% Rise in Avg of 66 & 60 i.e. 10% of (66+60)/2 + 5.0 = 5 So, Target=(66+60)/2 + 5 = 64

- Record of unit test for subject C-407 of BE, there are two-unit test after completion of three units respectively each of 30 marks and each COs for 10 marks.



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RECORD OF UNIT TEST MARKS								
SUBJECT: Switchgear And Protection			UNIT TEST MARKS					
CLASS: BE (A & B)								
AY/SEM: 2018-19/SEM-I			UNIT TEST-I		UNIT TEST-II			
SUBJECT TEACHER: A.Prof.P.U.Shinde B. Prof.N.O.Amte			CO1	CO2	CO3	CO4	CO5	CO6
S. No.	Roll No.	Name of Student	10	10	10	10	10	10
133	4268	LAKSHMAN AJINATH GHORFADE	7	6	7	6	7	8
134	4269	MORE GANESH	7	8	8	4	4	5
135	4270	MULE DURDESH	7	7	8	7	8	7
136	4271	PANCHAKSHARI SANGAMESHWAR	6	7	7	7	7	6
137	4272	PATIL PRASHANT	7	7	8	5	6	7
138	4274	SHENDE PRIYANKA	6	7	6	5	8	7
139	4275	SURYAWANSHI GAURAV	7	7	8	7	6	7
140	4278	TORNE NITISH	6	4	7	6	7	6
141	4279	VEDPATHAK SHUBHAM	7	8	7	7	8	8
142	4282	SANKHE KANCHAN	7	6	7	8	6	8
143	4283	THAKUR AKSHAY	7	6	7	6	6	7
AVERAGE MARKS			6.90	7.16	6.97	7.08	7.28	6.98
NO. OF STUDENTS SCORED MORE THAN AVERAGE MARKS			116	115	117	119	115	115
TOTAL NO. OF STUDENTS			143					
CO ATTAINMENT in %			81.12	80.42	81.82	83.22	80.42	80.42
ATTAINMENT LEVEL			3.00	3.00	3.00	3.00	3.00	3.00
TARGET %			70.00	70.00	70.00	70.00	70.00	70.00

- Record of Assignment for subject C407of BE, there are six assignments given after completion of each unit respectively each of 10 marks.

RECORD OF ASSIGNMENT MARKS								
SUBJECT: Switchgear And Protection			ASSIGNMENT MARKS					
CLASS: BE (A & B)								
AY/SEM: 2018-19/SEM-II			A1	A2	A3	A4	A5	A6
SUBJECT TEACHER: A.Prof.P.U.Shinde B.			CO1	CO2	CO3	CO4	CO5	CO6
S. No.	Roll No.	Name of Student	10	10	10	10	10	10
139	4275	SURYAWANSHI GAURAV	7	8	7	9	8	9
140	4278	TORNE NITISH	9	10	8	7	8	8
141	4279	VEDPATHAK SHUBHAM	7	7	8	9	9	8
142	4282	SANKHE KANCHAN	8	6	9	8	8	9
143	4283	THAKUR AKSHAY	7	6	9	8	9	9
AVERAGE			8.31	8.44	8.34	8.21	8.32	8.45
NO. OF STUDENTS SCORED MORE THAN AVERAGE MARKS			121	119	123	120	122	131
TOTAL NO. OF STUDENTS			143					
CO ATTAINMENT in %			84.62	83.22	86.01	83.92	85.31	91.61
ATTAINMENT LEVEL			3.00	3.00	3.00	3.00	3.00	3.00
TARGET %			70.00	70.00	70.00	70.00	70.00	70.00



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- Record of MCQ test for subject C407of BE, after completion of each unit 10 marks MCQ test is taken.

RECORD OF MCQs TEST MARKS								
SUBJECT: Switchgear And Protection			MCQs MARKS					
CLASS: BE (A & B)								
AY/SEM: 2018-19/SEM-II			T1	T2	T3	T4	T5	T6
SUBJECT TEACHER: A.Prof.P.U.Shinde B.			CO1	CO2	CO3	CO4	CO5	CO6
S.No.	Roll No.	Name of Student	10	10	10	10	10	10
139	4275	SURYAWANSHI GAURAV	9	8	8	7	9	9
140	4278	TORNE NITISH	9	8	8	8	8	9
141	4279	VEDPATHAK SHUBHAM	8	8	8	8	8	8
142	4282	SANKHE KANCHAN	8	8	8	8	8	8
143	4283	THAKUR AKSHAY	8	8	8	8	8	8
<b>AVERAGE</b>			<b>7.51</b>	<b>7.54</b>	<b>7.54</b>	<b>7.27</b>	<b>7.51</b>	<b>7.82</b>
<b>NO. OF STUDENTS SCORED MORE THAN AVERAGE MARKS</b>			<b>119</b>	<b>120</b>	<b>116</b>	<b>115</b>	<b>121</b>	<b>125</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>143</b>					
<b>CO ATTAINMENT in %</b>			<b>83.22</b>	<b>83.92</b>	<b>81.12</b>	<b>80.42</b>	<b>84.62</b>	<b>87.41</b>
<b>ATTAINMENT LEVEL</b>			<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>
<b>TARGET %</b>			<b>70.00</b>	<b>70.00</b>	<b>70.00</b>	<b>70.00</b>	<b>70.00</b>	<b>70.00</b>

- Record of LAB Assessment for subject C407of BE, each experiment is assessed for 25 marks and final marks will be the of 25 which is an average of all the experiments.

RECORD OF LAB ASSESSMENT MARKS			
SUBJECT: Switchgear And Protection			LA
CLASS: BE (A & B)			
AY/SEM: 2018-19/SEM-II			T1
SUBJECT TEACHER: A.Prof.P.U.Shinde B. Prof.N.D.Anwat			CO1-CO6
S.No.	Roll No.	Name of Student	25
139	4275	SURYAWANSHI GAURAV	17
140	4278	TORNE NITISH	16
141	4279	VEDPATHAK SHUBHAM	18
142	4282	SANKHE KANCHAN	16
143	4283	THAKUR AKSHAY	17
<b>AVERAGE</b>			<b>17.44</b>
<b>NO. OF STUDENTS SCORED MORE THAN AVERAGE MARKS</b>			<b>115</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>143</b>
<b>CO ATTAINMENT in %</b>			<b>80.42</b>
<b>ATTAINMENT LEVEL</b>			<b>3.00</b>
<b>TARGET %</b>			<b>70.00</b>



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- Record of Scenario Assignment for subject C407of BE, there are six assignments given on each unit for 10 marks each.

RECORD OF SCENARIO ASSIGNMENT								
SUBJECT: Switchgear And Protection			MARKS					
CLASS: BE (A & B)								
AY/SEM: 2018-19/SEM-II			A1	A2	A3	A4	A5	A6
SUBJECT TEACHER: A.Prof.P.U.Shinde B.			CO1	CO2	CO3	CO4	CO5	CO6
S.No.	Roll No.	Name of Student	10	10	10	10	10	10
139	4275	SURYAWANSHI GAURAV	8	8	9	9	9	8
140	4278	TORNE NITISH	9	9	8	8	9	8
141	4279	VEDPATHAK SHUBHAM	8	7	8	8	8	9
142	4282	SANGHE KANCHAN	8	8	7	8	7	8
143	4283	THAKUR AKSHAY	8	9	8	8	8	8
<b>AVERAGE</b>			<b>7.90</b>	<b>8.14</b>	<b>8.06</b>	<b>7.87</b>	<b>8.21</b>	<b>7.92</b>
<b>NO. OF STUDENTS SCORED MORE THAN AVERAGE MARKS</b>			<b>115</b>	<b>121</b>	<b>117</b>	<b>117</b>	<b>125</b>	<b>119</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>143</b>					
<b>CO ATTAINMENT in %</b>			<b>80.42</b>	<b>84.62</b>	<b>81.82</b>	<b>81.82</b>	<b>87.41</b>	<b>83.22</b>
<b>ATTAINMENT LEVEL</b>			<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>
<b>TARGET %</b>			<b>70.00</b>	<b>70.00</b>	<b>70.00</b>	<b>70.00</b>	<b>70.00</b>	<b>70.00</b>

- Record of SEE for subject C407of BE.

RECORD OF UNIVERISTY EXAM MARKS					
SUBJECT: Switchgear And Protection			UNIVERSITY MARKS		
CLASS: BE (A & B)					
AY/SEM: 2018-19/SEM-II			TH (Online/ Insem+Endsem)	PR/OR	TW
SUBJECT TEACHER: A.Prof.P.U.Shinde B.			CO1-CO6		
S.No.	Roll No.	Name of Student	100	25	50
1	4101	SATHE RUSHIKESH BARURAO	36	19	36
2	4102	ABHIJEET DATTATRAY WAGHMARE	48	16	35
3	4103	AGHAV SUDARSHAN SHRIRAM	57	19	37
142	4282	SANGHE KANCHAN	54	13	37
143	4283	THAKUR AKSHAY	49	12	36
<b>AVERAGE</b>			<b>56.99</b>	<b>16.69</b>	<b>40.38</b>
<b>NO. OF STUDENTS SCORED MORE THAN AVERAGE MARKS</b>			<b>79</b>	<b>89</b>	<b>93</b>
<b>TOTAL NO. OF STUDENTS</b>			<b>143</b>	<b>143</b>	<b>143</b>
<b>CO ATTAINMENT in %</b>			<b>55.24</b>	<b>62.24</b>	<b>65.03</b>
<b>ATTAINMENT LEVEL</b>			<b>2.00</b>	<b>2.00</b>	<b>2.00</b>
<b>TARGET %</b>			<b>58.00</b>	<b>55.00</b>	<b>55.00</b>



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- Direct assessment of COs using CIE, SPR and SEE tools is shown below. Here overall target consists of (0.3\*target CIE&SPR) + (0.7\* target SEE) and overall attainment consist of (0.2 \* CIE + 0.1 \* SPR + 0.7 \* SEE).

Direct Assessment														
Slr	Continuous Internal Evaluation (CIE)				SPR		Semester End Evaluation				SEM/CO ATTAINMENT			
	ATTAINMENT OF CIE	ATTAINMENT OF ASSIGNMENT	ATTAINMENT OF MCQ	ATTAINMENT OF LAB	AVERAGE OF CIE	ATTAINMENT OF ASSIGNMENT	ATTAINMENT OF MCQ	ATTAINMENT OF LAB	ATTAINMENT OF SEM/CO	AVERAGE OF SEE	TARGET CIE & SPR	TARGET SEE	ATTAINMENT OVERALL	
CO1	81.82	84.62	85.22	86.42	83.34	86.42	86.42	85.24	82.24	85.03	80.84	70.00	86.00	1.80
CO2	86.42	81.22	85.92	86.42	83.99	84.62	84.62	85.24	82.24	85.03	80.84	70.00	86.00	1.80
CO3	81.82	86.02	81.12	86.42	83.34	81.82	81.82	85.24	82.24	85.03	80.84	70.00	86.00	1.80
CO4	81.22	81.82	86.42	86.42	83.99	81.82	81.82	85.24	82.24	85.03	80.84	70.00	86.00	1.80
CO5	86.42	81.12	84.62	86.42	82.69	87.41	87.41	85.24	82.24	85.03	80.84	70.00	86.00	1.80
CO6	86.42	81.41	87.41	86.42	84.97	83.22	83.22	85.24	82.24	85.03	80.84	70.00	86.00	1.80

ATTAINED TOTALS						
CO1	CO2	CO3	CO4	CO5	CO6	Avg
87.30	87.46	87.34	87.17	87.87	87.96	87.30

- Following table shows the target and attained values for subject C407 of BE 2018-19 Bach.

CO	Target vs Attainment		Gap in%	Action Plan/Remark
	T	A		
CO1	T	60.20	-	
	A	67.10		
CO2	T	60.20	-	
	A	67.45		
CO3	T	60.20	-	
	A	67.24		
CO4	T	60.20	-	
	A	67.17		
CO5	T	60.20	-	
	A	67.87		
CO6	T	60.20	-	
	A	67.90		



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**B) Attainment of all courses with respect to set attainment level.**

The attainment of Course Outcomes of all courses including first year with respect to set attainment levels in percentage is presented in 2.6.2.2.A for the batch admitted in 2015-16 which has passed out in 2018-19

**Table 2.6.2.2.A Attainment of all courses with respect to set attainment level in percentage**

CO TARGET vs ATTAINMENT													
CO Code	CO TARGETS in %						CO ATTAINMENT in %						CO AVG ATTAINMENT %
	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6	CO1	CO2	CO3	CO4	CO5	CO6	
C101	55	55	55	55	55	55	61.16	61.02	61.36	63.07	62.95	62.50	62.01
C102	62	62	62	62	62	62	63.95	65.11	63.75	66.14	63.80	65.23	64.67
C103	62	62	62	62	62	62	63.36	64.32	64.66	64.32	63.18	65.45	64.22
C104	55	55	55	55	55	55	59.32	55.91	56.93	56.59	53.18	51.82	55.63
C105	62	62	62	62	62	62	58.09	60.43	61.74	59.78	61.30	60.43	60.30
C106	58	58	58	58	58	58	62.22	62.93	63.91	64.24	61.96	64.13	63.23
C107	60	60	60	60	60	60	55.68	55.00	57.05	56.02	55.68	57.05	56.08
C108	51	51	51	51	-	-	61.67	64.79	64.17	64.79	-	-	63.86
C109	69	69	69	69	69	69	70.87	70.87	70.87	73.48	72.17	71.52	71.63
C110	51	51	51	51	51	51	57.58	56.33	54.62	53.94	52.01	53.37	54.64
C111	57	57	57	57	57	57	61.09	59.32	63.07	58.98	62.27	62.73	61.24
C112	55	55	55	55	55	55	47.14	49.32	50.68	46.59	48.41	49.32	48.58
C113	58	58	58	58	58	58	65.91	69.32	67.27	68.64	-	-	67.79
C114	56	56	56	56	56	56	55.45	57.50	57.50	56.82	55.45	54.09	56.14
C201	56	56	56	56	56	56	60.43	60.31	59.95	59.42	59.54	60.00	59.94
C202	62	62	62	62	62	62	59.69	59.61	59.30	59.40	59.78	59.88	59.61
C203	56	56	56	56	56	56	60.83	61.01	60.91	60.80	60.98	60.98	60.92
C204	63	63	63	63	63	63	66.11	66.29	65.93	66.04	66.22	66.11	66.12
C205	64	64	64	64	64	64	66.38	66.85	66.41	66.49	66.78	66.52	66.57
C206	75	75	75	75	75	75	76.52	76.96	76.30	76.74	76.96	76.52	76.67
C2A1	60	60	60	60	60	60	76.81	78.99	77.17	78.99	78.26	78.99	78.20
C207	59	59	59	59	59	59	56.76	56.81	56.74	56.64	56.67	56.28	56.65
C208	55	55	55	55	55	55	63.24	63.71	63.35	63.24	63.64	63.85	63.51



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C209	57	57	57	57	57	57	62.21	62.43	61.92	61.88	62.25	62.21	62.15
C210	59	59	59	59	59	59	65.57	65.68	65.53	65.68	65.53	65.50	65.58
C211	52	52	52	52	52	52	61.99	61.96	61.99	61.81	62.39	62.46	62.10
C2A2	60	60	60	60	60	60	75.72	76.45	76.45	75.72	76.45	77.54	76.39
C301	57	57	57	57	57	57	63.10	62.22	62.10	62.88	62.27	62.51	62.51
C302	60	60	60	60	60	60	63.05	63.09	63.09	63.19	63.65	63.33	63.23
C303	60	60	60	60	60	60	64.34	61.99	62.09	62.13	61.74	62.09	62.40
C304	59	59	59	59	59	59	60.74	60.64	60.82	60.96	60.64	60.74	60.76
C305	60	60	60	60	60	60	65.28	65.57	65.00	65.25	64.89	64.93	65.15
C306	70	70	70	70	70	70	70.28	70.28	70.28	70.28	70.28	70.28	70.28
C3A1	65	65	65	65	65	65	80.50	80.14	80.85	82.62	82.27	83.33	81.62
C307	61	61	61	61	61	61	65.74	66.06	65.92	65.99	65.74	65.78	65.87
C308	55	55	55	55	55	55	61.28	61.56	61.10	60.71	61.52	61.10	61.21
C309	54	54	54	54	54	54	57.00	57.83	57.73	57.09	58.09	57.57	57.55
C310	63	63	63	63	63	63	69.48	69.41	69.09	69.27	69.48	69.48	69.37
C311	60	60	60	60	60	60	64.61	65.11	65.00	64.54	64.75	65.71	64.95
C312	61	61	61	61	61	61	80.00	79.79	78.94	80.21	79.15	80.43	79.75
C3A2	65	65	65	65	65	65	87.94	87.94	87.94	87.94	87.94	87.23	87.82
C401	67	67	67	67	67	67	72.45	72.80	72.41	73.22	73.29	72.97	72.86
C402	65	65	65	65	65	65	76.34	76.48	76.13	77.11	77.04	76.31	76.57
C403	49	49	49	49	49	49	70.77	70.28	69.69	69.79	69.97	69.65	70.03
C404	49	49	49	49	49	49	65.15	64.50	64.52	64.83	65.97	65.41	65.06
C4A1	70	70	70	70	70	70	82.17	83.22	81.12	81.47	82.17	82.52	82.11
C405	64	64	64	64	64	64	69.64	69.29	69.57	69.46	69.29	69.39	69.44
C406	63	63	63	63	63	63	70.42	70.42	70.42	70.42	70.42	70.42	70.42
C407	60	60	60	60	60	60	67.10	67.45	67.24	67.17	67.87	67.90	67.46
C408	63	63	63	63	63	63	65.83	65.90	65.83	65.69	65.79	65.83	65.81
C409	61	61	61	61	61	61	67.76	68.39	68.60	68.46	68.22	68.22	68.28
C410	57	57	57	57	57	57	80.77	81.24	82.82	83.01	83.10	82.26	82.20
C411	67	67	67	67	67	67	72.02	72.02	72.02	72.02	72.02	72.02	72.02
C4A2	70	70	70	70	70	70	76.14	77.54	76.49	75.44	76.84	77.54	76.67

The attainment of Course Outcomes of all courses including first year with respect to set attainment levels is presented in table 2.6.2.2.B for the batch admitted in 2015-16 which has passed out in 2018-19



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Table 2.6.2.2.B Attainment of all courses with respect to set attainment level

CO TARGET vs ATTAINMENT 2015-2019 BATCH														
CO Co de	CO TARGETS						CO ATTAINMENT						CO AVG ATTAINM ENT	
	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6		
C101	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C102	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C103	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C104	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C105	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C106	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C107	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C108	2	2	2	2	-	-	2	2	2	2	-	-	-	2.00
C109	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C110	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C111	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C112	2	2	2	2	2	2	1	1	2	1	1	1	1	1.17
C113	2	2	2	2	-	-	2	2	2	2	-	-	-	2.00
C114	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C201	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C202	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C203	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C204	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C205	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C206	2	2	2	2	2	2	3	3	3	3	3	3	3	3.00
C2A 1	2	2	2	2	2	2	3	3	3	3	3	3	3	3.00
C207	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C208	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C209	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C210	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C211	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C2A 2	2	2	2	2	2	2	3	3	3	3	3	3	3	3.00
C301	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C302	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C303	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C304	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00



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C305	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C306	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C3A 1	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3.00
C307	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C308	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C309	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C310	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C311	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C312	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3.00
C3A 2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3.00
C401	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C402	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3.00
C403	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2.00
C404	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2.00
C4A 1	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3.00
C405	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C406	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C407	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C408	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C409	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C410	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3.00
C411	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.00
C4A 2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3.00



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## 2.6.2.3. Attainment of Program Outcomes and Program Specific Outcomes

### 2.6.2.3.1. Describe assessment tools and processes used for measuring the attainment of each of the Program Outcomes and Program Specific Outcomes

Assessment tools and processes used for measuring the attainment of each of course outcome of every course from first year to final year are described in 2.6.2.2. The results of evaluation of course outcomes with respect to set target levels are presented in 2.6.2.2. The Program Outcomes and Program Specific Outcomes are evaluated considering the attainment values of course outcomes. The process of evaluation of POs and PSOs is explained in the figure 2.6.2.3.1. The indirect assessment tools used for evaluation of PO and PSO are as described in table 2.6.2.3.1.

Table 2.6.2.3 | Indirect Assessment tools used for measuring the PO and PSO attainment

INDIRECT ASSESSMENT TOOLS		
Sr. No	Indirect Assessment Tools	Description
1	Program Exit Survey (40%)	Collect the suggestions and opinions about program Satisfaction from the final year students in final semester.  Attainment levels are calculated on the bases of grades given by the final year students in the PES form, considering all PO and PSOs. Grade range is from 1 to 5
2	Employer Feedback (20%)	Collect the information on performance of employed students and expected additional curriculum to be implemented in the institute to meet the requirement of the industry.  Attainment levels are calculated on the bases of grades given by the Employer, in the Employer feedback form considering all PO and PSOs. Grade range is from 1 to 5
3	Co-curricular and Extra-curricular Activities (40%)	Considered the number of students participated or attended for the events (Co-curricular and extra-curricular) organized in the institute for the entire year.



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	Attainment levels are decided on the basis of number of students attended for the respective event.
TARGET vs ATTAINMENT LEVEL	LEVEL 3: $\geq 75\%$ (Grade or Attendance) LEVEL 2: 50% to 74% (Grade or Attendance) LEVEL 1: $< 50\%$ (Grade or Attendance)

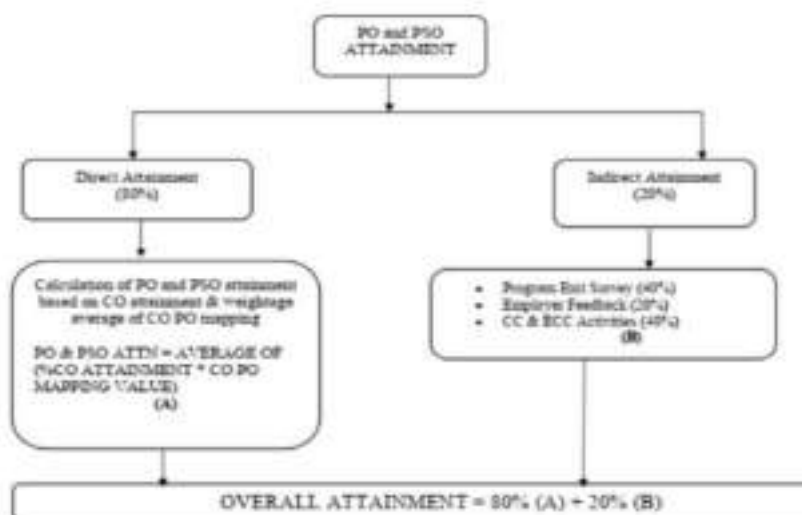


Fig. 2.6.2.3.1 Process followed for measuring attainment of PO & PSO



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## 2.6.2.3.2. Provide results of evaluation of each PO & PSO (40)

### A) PO and PSO Attainment.

- PO and PSO attainment of each courses using direct attainment are calculated as  
PO & PSO ATTN – AVERAGE OF (%CO ATTAINMENT \* CO PO MAPPING VALUE)
- One sample PO and PSO attainment of course C407 of BE is shown below.

SUBJECT: Gearbox And Protection		CLASS: BE (A & B)		SEMESTER: 2018-2019		SUBJECT TEACHER: A.Prof.P.U.Shinde, B.Prof.N.U.Amte	
CO-PO MAPPING							
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C01	1.00	1.00	1.00	1.00	1.00	1.00	1.00
C02	1.00	1.00	1.00	1.00	1.00	1.00	1.00
C03	1.00	1.00	1.00	1.00	1.00	1.00	1.00
C04	1.00	1.00	1.00	1.00	1.00	1.00	1.00
C05	1.00	1.00	1.00	1.00	1.00	1.00	1.00
C06	1.00	1.00	1.00	1.00	1.00	1.00	1.00
C07	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average	1.00	1.00	1.00	1.00	1.00	1.00	1.00

COURSE	A/CO	PO1		PO2		PO3		PO4		PO5		PO6		PO7	
		Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg		
C407	02020502	2	1.50	2	1.50	2	1.50	2	1.50	2	1.50	2	1.50	2	1.50
C407	02020502	2	1.50	2	1.50	2	1.50	2	1.50	2	1.50	2	1.50	2	1.50
C407	02020502	2	1.50	2	1.50	2	1.50	2	1.50	2	1.50	2	1.50	2	1.50
C407	02020502	2	1.50	2	1.50	2	1.50	2	1.50	2	1.50	2	1.50	2	1.50
C407	02020502	2	1.50	2	1.50	2	1.50	2	1.50	2	1.50	2	1.50	2	1.50
Average	02020502	1.87	1.44	2	1.50	2	1.50	2	1.50	2	1.50	2	1.50	2	1.50

COURSE	PSO1		PSO2	
	Max	Avg	Max	Avg
C407	2	1.50	2	1.50
C407	2	1.50	2	1.50
C407	2	1.50	2	1.50
C407	2	1.50	2	1.50
C407	2	1.50	2	1.50
Average	1.87	1.44	2	1.50

Fig. 2.6.2.3.2.PO and PSO attainment of course C407 of BE

- For indirect attainment following tools are used
  - Program Exit Survey (40%)
  - Employer Feedback (20%)
  - CC & ECC Activities (40%)



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### B) Result of evaluation of each PO and PSO

Evaluation of each of PO considering the assessment tools described in 3.2.1 and the process of evaluation of PO, described in 2.6.2.3.1, is presented in table 2.6.2.3.2.

Table 2.6.2.3.2 the results of evaluation of PO

AVERAGE ATTAINMENT PO FOR BATCH 2015-2016 to 2018-2019												
COURSE CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	1.12	1.03	1.03	0.93	0.62	0.62		0.62	0.62			0.73
C102	1.16	1.08	0.91	0.65	0.65	0.81	0.80	0.65	0.65	0.86		0.76
C103	1.07	1.16	0.86	0.63	0.63	0.63	0.64		0.64			0.64
C104	1.03	0.56	0.56	0.56	0.55							0.83
C105	1.09	0.99	0.60	0.60		0.60		0.61				0.60
C106	1.27	0.64	0.63									0.85
C107	1.12	0.56			0.57	0.57	0.56		0.57	0.57		0.56
C108	1.12	0.64	0.65	0.64					0.64	0.64		1.12
C109	1.49	0.93	0.93	1.62		0.93				1.67		0.93
C110	0.97	1.00	0.91	0.72	0.68	0.55		0.55	0.55			0.73
C111	1.10	0.62	0.73	0.61	0.61	0.62	0.61		0.63	0.60	0.61	0.61
C112	0.88	0.49										0.49
C113	1.19	0.68	0.85	0.68					0.68	0.68		1.18
C114	1.02	0.56	0.56	0.56	0.56							0.84
C201	0.90	0.96	1.00	0.75	0.60	1.08	1.10	0.60		0.60		0.60
C202	1.19	0.99	0.99	0.59								0.89



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C203	0.81	0.61	0.81	1.07	1.22	0.61	0.61	0.61				0.61
C204	1.21	1.10	1.45	1.32	0.66					0.77		0.88
C205	1.33	0.67	1.11	1.33	0.67	0.67	0.67	0.67				0.89
C206					1.54	0.96		1.28	1.73	1.53		2.30
C2A1	1.56	0.78	1.96		0.77	0.78	1.41	0.79	1.57	1.57	0.78	0.91
C207	0.95	0.85	0.71	0.57		0.57	0.57	0.57				0.76
C208	1.27	1.06		1.27		0.64						0.64
C209	1.55	1.14	1.24	1.09	1.14							1.04
C210	1.57	1.57	1.18	1.20	1.64	0.66						1.09
C211	1.04	0.93	1.12	0.99	1.37	0.62	0.62					1.14
C2A2	1.52	0.77	1.68		1.78	0.76	1.22	0.13	1.14	1.27	0.19	0.76
C301	0.62		1.24		0.63	0.73	0.73	1.35	0.73	1.25	0.78	0.83
C302	0.95	0.84	1.27	0.84	1.52	0.63	0.95					1.05
C303	0.93	0.93	1.24	1.24		0.62						0.62
C304	1.22	1.22	1.22	1.11	0.97	0.61						0.71
C305	1.19	1.09	1.52	0.65	0.87	0.78	0.91	1.08		0.66	1.30	0.98
C306	1.58	0.98		1.41	1.52	1.05	1.23	1.05	1.76	1.87		1.41
C3A1	1.63	1.37	1.60	1.66	2.05	1.64	1.61	1.65		1.63	2.47	1.77
C307	1.76	1.10	0.66	0.66	1.10	0.66		0.66		1.32		0.88
C308	1.73	1.53	1.63	0.92	1.43	0.92	0.61					1.33
C309	1.34	1.38	1.27	1.01		0.67	0.67	0.77			0.58	1.06
C310	2.08	1.50	1.50	1.39	1.39	0.92	0.69	0.97		1.39	0.69	1.39
C311	0.81	0.65	0.97	1.14		1.41	1.41	0.97	1.30	0.98	0.98	1.52
C312	1.60	0.93	1.06	1.34	1.46	1.73	1.06	1.86	2.26	1.60	0.80	2.12



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C3A2	1.76			1.76	1.76	1.76	1.76			1.02		1.76
C401	1.94	1.70	1.34	1.90	2.04	0.73	0.73	1.09		1.47		1.70
C402	1.84	1.53	1.53	1.92	2.04	1.28	1.16	1.38		1.54		2.17
C403	1.54	0.93	1.40	1.26		1.28	1.40	0.70			0.70	1.40
C404	1.30	1.08	1.43	1.14	1.14	1.14	1.04	0.65	0.65	0.65		1.30
C405	1.85	1.39	1.16	1.39	2.08	0.70						1.62
C406	1.41	1.41	1.41	1.41	1.55	1.27	1.27	1.41	1.41	1.76	1.13	1.76
C4A1	2.05	2.06	2.05	2.19	2.06	2.05	2.47	2.05	2.04	2.47	2.06	2.19
C407	1.46	1.35	1.35	1.36		1.46	0.67	0.68		1.35		1.35
C408	1.32	1.32	1.32	1.32	1.32					1.32		1.32
C409	1.82	1.59	1.93	1.64	0.69	1.02	1.36					1.37
C410	1.78	1.65	1.10	1.66	1.10	1.64	1.97	1.65				1.44
C411	1.44	1.44	1.44	1.44	1.58	1.30	1.30	1.44	1.44	1.80	1.15	1.80
C4A2	1.88	2.04	1.83	1.88	1.83	2.08	1.75	1.83	1.82	1.97	1.96	1.76
AVG	1.35	1.09	1.19	1.15	1.21	0.97	1.08	1.01	1.14	1.27	1.08	1.15

The target PO attainment is set using the following formula

$$TARGET\ PO\ ATTAINMENT = (0.8 * PO\ MAPPING\ AVERAGE) + (0.2 * 3)$$

Overall attainment of PO is calculated using the following formula

$$OVERALL\ ATTAINMENT = (0.8 * A) + (0.2 * B)$$

Where,

A=Direct Attainment of PO, considering internal direct assessment tools and external assessment tools.

B=Indirect attainment of PO, considering Program exit survey, Employer survey and Co-Curricular and extracurricular activities.



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The Results of evaluation of each PO calculated, considering above formulae are presented in table 2.6.2.3.3

Table 2.6.2.3.3 Results of evaluation of each PO

PO MAP vs ATTAINMENT	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PO12
PO MAPPING AVG	2.01	1.62	1.76	1.67	1.74	1.39	1.53	1.46	1.63	1.76	1.53	1.68
TARGET ATTAINMENT PO	2.21	1.90	2.01	1.94	1.99	1.71	1.82	1.77	1.90	2.01	1.82	1.94
DIRECT ATTAINMENT (A)	1.35	1.09	1.19	1.15	1.21	0.97	1.08	1.01	1.14	1.17	1.06	1.15
INDIRECT ATTAINMENT (B)	3	3	3	3	3	3	3	3	3	3	3	3
OVERALL PO ATTAINMENT	1.68	1.47	1.55	1.52	1.57	1.38	1.46	1.41	1.51	1.62	1.46	1.52

The pictorial presentation of target PO verses PO attainment is as shown in figure 2.6.2.3.3

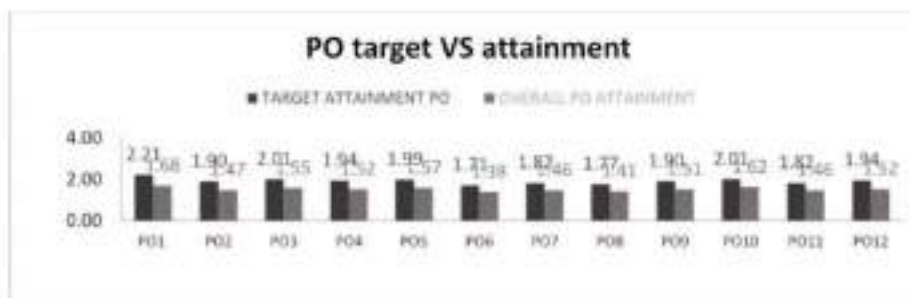


Fig. 2.6.2.3.3 PO target VS PO attainment

Evaluation of each of PSO considering the assessment tools described in 2.6.2.2.1 and the process of evaluation of PSO, described in 2.6.2.3.1, is presented in table 2.6.2.3.4.

Table 2.6.2.3.4 the results of evaluation of PO

AVERAGE ATTAINMENT PSO FOR BATCH 2015-16 to 2018-2019		
CO CODE	PSO1	PSO2
C101		



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Principal

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B.E. (Elec.) PGDM, Ph.D  
Founder Secretary

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C102		
C103		
C104		
C105		
C106		
C107		
C108		
C109		
C110		
C111		
C112		
C113		
C114		
C201	0.70	1.00
C202	0.99	0.60
C203	0.81	0.61
C204	1.21	0.66
C205	1.00	0.89
C206	0.77	0.77
C2A1	0.78	1.56
C207	0.76	0.95



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C208	0.95	0.64
C209	0.83	0.73
C210	0.66	0.66
C211	0.83	0.62
C2A2	0.76	1.53
C301	0.63	0.63
C302	0.84	0.63
C303	0.62	0.83
C304	1.11	0.61
C305	1.19	1.30
C306	1.17	1.17
C3A1	1.63	1.77
C307	1.21	0.66
C308	1.84	0.61
C309	0.96	0.58
C310	1.85	1.39
C311	0.65	1.30
C312	1.73	2.39
C3A2	1.32	1.32
C401	1.46	1.70
C402	1.53	2.17



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C403	0.70	1.40
C404	1.63	1.08
C405	1.62	0.93
C406	2.11	1.76
C4A1	1.64	1.64
C407	1.80	1.80
C408	1.54	1.32
C409	1.59	1.37
C410	0.96	1.64
C411	2.16	1.80
C4A2	1.96	1.83
AVG	1.21	1.17

The target PSO attainment is set using the following formula

$$TARGET\ PSO\ ATTAINMENT = (0.8 * PSO\ MAPPING\ AVERAGE) + (0.2 * 3)$$

Overall attainment of PSO is calculated using the following formula

$$OVERALL\ ATTAINMENT = (0.8 * A) + (0.2 * B)$$

Where,

A=Direct Attainment of PSO, considering internal direct assessment tools and external assessment tools.

B=Indirect attainment of PSO, considering Program exit survey, Employer survey and Co-curricular and extracurricular activities.

The Results of evaluation of each PSO calculated, considering above formulae are presented in table 2.6.2.3.5



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Table 2.6.2.3.5 Results of evaluation of each PO

PSO Target vs Attainment	PSO1	PSO2
PSO MAPPING AVG	1.76	1.67
TARGET ATTAINMENT PSO	2.01	1.94
DIRECT ATTAINMENT (A)	1.21	1.17
INDIRECT ATTAINMENT (B)	3	3
OVERALL PSO ATTAINMENT	1.57	1.54

The pictorial presentation of target PSO versus PSO attainment is as shown in figure 2.6.2.3.5.



Fig. 2.6.2.3.5 PSO target VS PSO attainment

The mapped PO and attained PO are presented in table 2.6.2.3.5 (a) and 2.6.2.3.5 (b) from first year engineering to final year engineering (FE to BE)



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Table 2.6.2.3.5 (a) Results of mapped PO and attained PO

	PO1		PO2		PO3		PO4		PO5		PO6	
	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn
FE 2015-16	1.83	1.12	1.26	0.78	1.21	0.77	1.14	0.75	1.03	0.61	1.03	0.67
SE 2016-17	1.99	1.27	1.85	1.20	1.79	1.15	1.88	1.20	1.81	1.15	1.66	1.09
TE 2017-18	2.24	1.49	2.08	1.38	2.16	1.46	2.13	1.43	2.15	1.40	1.97	1.32
BE 2018-19	2.65	1.89	2.46	1.76	2.59	1.85	2.41	1.72	2.46	1.75	2.51	1.79

Table 2.6.2.3.5 (b) Results of mapped PO and attained PO

	PO7		PO8		PO9		PO10		PO11		PO12	
	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn
FE 2015-16	1.06	0.65	0.8	0.61	1.03	0.62	1.19	0.84	1	0.61	1.25	0.78
SE 2016-17	1.73	1.14	1.44	0.95	1.65	1.07	1.43	0.94	1.59	1.05	1.78	1.19
TE 2017-18	2.1	1.42	2.11	1.36	1.93	1.27	1.83	1.23	1.81	1.23	2.04	1.37
BE 2018-19	2.42	1.74	2.46	1.75	2.42	1.73	2.5	1.79	2.24	1.60	2.46	1.77



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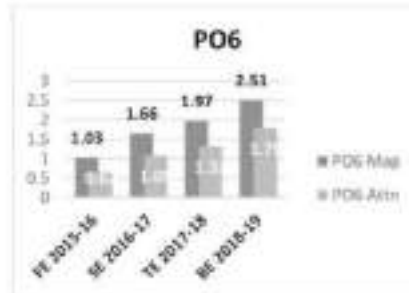
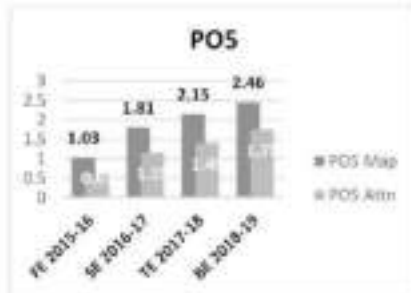
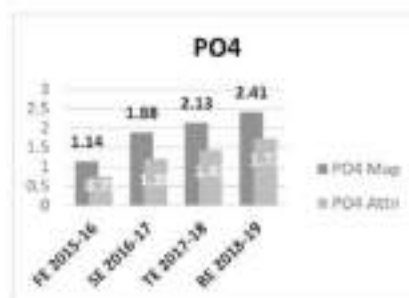
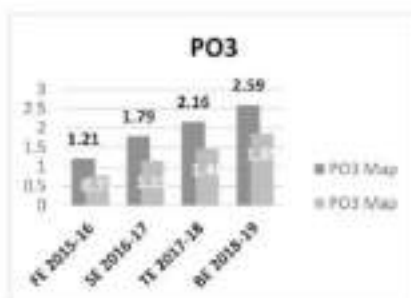
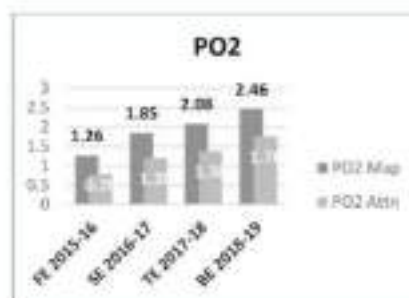
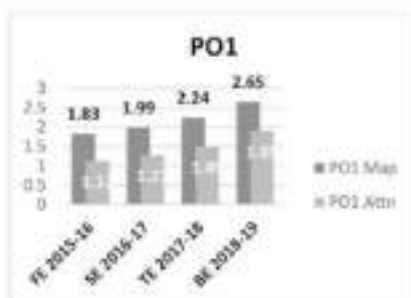
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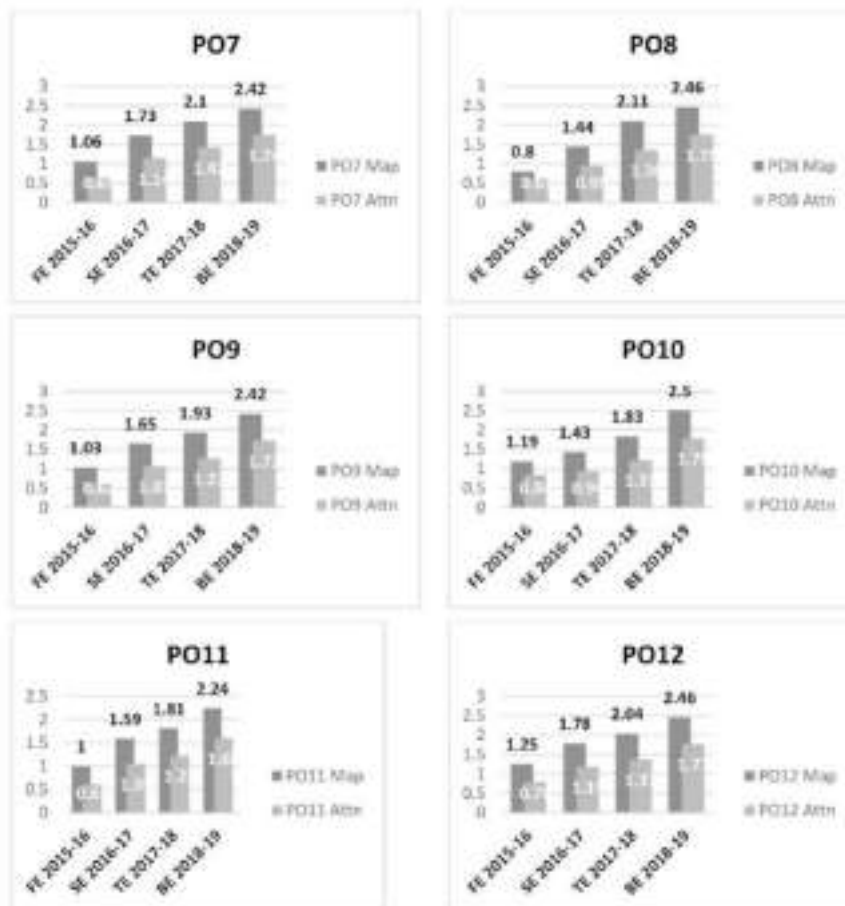


Fig. 2.6.2.3.5 Mapped POs vs. Attained POs

The mapped PSO and attained PSO are presented in table 2.6.2.3.6 from first year engineering to final year engineering (FE to BE)



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Table 2.6.2.3.6 Results of mapped PSO and attained PSO

	PSO1		PSO2	
	Map	Attn	Map	Attn
FE 2015-16	1	0.78	1	0.98
SE 2016-17	1.99	1.30	1.6	1.05
TE 2017-18	2.21	1.49	2.06	1.39
BE 2018-19	2.71	1.94	2.56	1.83

The pictorial presentation of mapped PSOs and attained PSOs (PSO1 and PSO2) for FE to BE is as shown in figure 2.6.2.3.6.

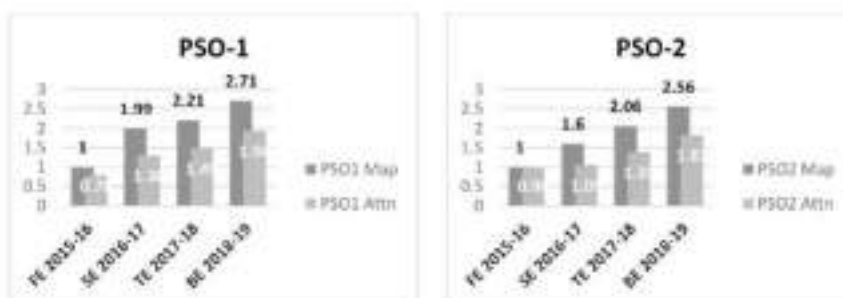


Fig. 2.6.2.3.6 Mapped PSOs vs. Attained PSOs

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HOD  
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**Department of Electronics and Telecommunication Engineering**

**List of Course Outcomes(Current Year)**

**SE 2019 Course: Academic year: 2022-23, SE Semester I**

Course Code	Name of the Course	Course Outcome Statements
207005	Engineering Mathematics - III	<ul style="list-style-type: none"> <li>Solve higher order linear differential equation using appropriate techniques for modelling, analyzing of electrical circuits and control system</li> <li>Apply concept of Fourier transform &amp; Z-transform and its applications to continuous &amp; discrete systems, signal &amp; image processing and communication systems</li> <li>Obtain Interpolating polynomials, numerically differentiate and integrate functions, numerical solutions of differential equations using single step and multi-step iterative methods used in modern scientific computing.</li> <li>Perform vector differentiation &amp; integration, analyze the vector fields and apply to electro- magnetic fields &amp; wave theory.</li> <li>Analyze Complex functions, Conformal mappings, Contour integration applicable to electrostatics ,digital filters, signal and image processing</li> </ul>
204181	Electronic Circuits	<ul style="list-style-type: none"> <li>Assimilate the physics, characteristics and parameters of MOSFET towards its application as amplifier.</li> <li>Design MOSFET amplifiers, with and without feedback, &amp; MOSFET oscillators, for given specifications</li> <li>Analyze and assess the performance of linear and switching regulators, with their variants, towards applications in regulated power supplies</li> <li>Explain internal schematic of Op-Amp and define its performance parameters</li> <li>Design, Build and test Op-amp based analog signal processing and conditioning circuits towards various real time applications.</li> <li>Understand and compare the principles of various data conversion techniques and PLL with their applications</li> </ul>
204182	Digital Circuits	

		<ul style="list-style-type: none"> <li>• Identify and prevent various hazards and timing problems in a digital design.</li> <li>• Use the basic logic gates and various reduction techniques of digital logic circuit.</li> <li>• Analyze, design and implement combinational logic circuits.</li> <li>• Analyze, design and implement sequential circuits.</li> <li>• Differentiate between Mealy and Moore machines.</li> <li>• Analyze digital system design using PLD</li> </ul>
204183	Electrical Circuits	<ul style="list-style-type: none"> <li>• Analyze the simple DC and AC circuit with circuit simplification techniques.</li> <li>• Formulate and analyze driven and source free RL and RC circuits.</li> <li>• Formulate &amp; determine network parameters for given network and analyze the given network using Laplace Transform to find the network transfer function.</li> <li>• Explain construction, working and applications of DC Machines / Single Phase &amp; Three Phase AC Motors.</li> <li>• Explain construction, working and applications of special purpose motors &amp; understand motors used in electrical vehicles.</li> <li>• Analyze and select a suitable motor for different applications.</li> </ul>
204184	Data Structures	<ul style="list-style-type: none"> <li>• Solve mathematical problems using C programming language</li> <li>• Implement sorting and searching algorithms complexity.</li> <li>• Develop applications of stack and queue using array.</li> <li>• Demonstrate applicability of Linked List.</li> <li>• Demonstrate applicability of nonlinear Binary Tree with respect to its time complexity.</li> <li>• Apply the knowledge of graph for solving spanning tree and shortest path algorithm</li> </ul>

**SE 2019 Course: Academic year: 2022-23, SE Semester II**

Course Code	Name of the Course	Course Outcome Statements
204191	Signals & Systems	<ul style="list-style-type: none"> <li>• Identify, classify basic signals and perform operations on signals.</li> <li>• Identify, Classify the systems based on their properties in terms of input output relation and in terms of impulse response and will be able to determine the convolution between to signals.</li> <li>• Analyze and resolve the signals in frequency domain using Fourier series and Fourier Transform.</li> <li>• Resolve the signals in complex frequency domain using Laplace Transform, and will be able to</li> </ul>

		<p>apply and analyze the LTI systems using Laplace Transforms.</p> <ul style="list-style-type: none"> <li>• Define and Describe the probability, random variables and random signals. Compute the probability of a given event, model, compute the CDF and PDF.</li> <li>• Compute the mean, mean square, variance and standard deviation for given random variables using PDF</li> <li>•</li> </ul>
204192	Control Systems	<ul style="list-style-type: none"> <li>•</li> <li>• Determine and use models of physical systems in forms suitable for use in the analysis and design of control systems.</li> <li>•</li> <li>• Determine the (absolute) stability of a closed-loop control system.</li> <li>• Perform time domain analysis of control systems required for stability analysis.</li> <li>• Perform frequency domain analysis of control systems required for stability analysis.</li> <li>• Apply root-locus, Frequency Plots technique to analyze control systems</li> <li>• Express and solve system equations in state variable form.</li> <li>• Differentiate between various digital controllers and understand the role of the controllers in Industrial automation.</li> <li>•</li> </ul>
204193	Principles of Communication Systems	<ul style="list-style-type: none"> <li>• To compute &amp; compare the bandwidth and transmission power requirements by analyzing time and frequency domain spectra of signal required for modulation schemes under study.</li> <li>• Describe and analyze the techniques of generation, transmission and reception of Amplitude Modulation Systems.</li> <li>• Explain generation and detection of FM systems and compare with AM systems.</li> <li>• Exhibit the importance of Sampling Theorem and correlate with Pulse Modulation technique (PAM, PWM, and PPM).</li> <li>• Characterize the quantization process and elaborate digital representation techniques (PCM, DPCM, DM and ADM).</li> <li>• Illustrate waveform coding, multiplexing and synchronization techniques and articulate their importance in baseband digital transmission</li> </ul>
204194	Object Oriented Programming	<ul style="list-style-type: none"> <li>•</li> <li>• Describe the principles of object oriented</li> </ul>



		<p>programming.</p> <ul style="list-style-type: none"> <li>• Apply the concepts of data encapsulation, inheritance in C++</li> <li>• Understand Operator overloading and friend functions in C++.</li> <li>• Apply the concepts of classes, methods inheritance and polymorphism to write programs C++.</li> <li>• Apply Templates, Namespaces and Exception Handling concepts to write programs in C++.</li> <li>• Describe and use of File handling in C++</li> </ul>
204199	<b>Employability Skills Development</b>	<ul style="list-style-type: none"> <li>• Define personal and career goals using introspective skills and SWOC assessment. Outline and evaluate short-term and long-term goals.</li> <li>• Develop effective communication skills (listening, reading, writing, and speaking), self- management attributes, problem solving abilities and team working &amp; building capabilities in order to fetch employment opportunities and further succeed in the workplace.</li> <li>• Be a part of a multi-cultural professional environment and work effectively by enhancing inter-personal relationships, conflict management and leadership skills.</li> <li>• Comprehend the importance of professional ethics, etiquettes &amp; morals and demonstrate sensitivity towards it throughout certified career.</li> <li>• Develop practically deployable skill set involving critical thinking, effective presentations and leadership qualities to hone the opportunities of employability and excel in the professional environment.</li> </ul>
204200	<b>Project Based Learning</b>	<ul style="list-style-type: none"> <li>• identify the real-world problem (possibly of interdisciplinary nature) through a rigorous literature survey and formulate / set relevant aim and objectives.</li> <li>• Contribute to society through proposed solution by strictly following professional ethics and safety measures.</li> <li>• Propose a suitable solution based on the fundamentals of electronics and communication engineering by possibly the integration of previously acquired knowledge.</li> <li>• Analyze the results and arrive at valid conclusion.</li> <li>• Use of technology in proposed work and demonstrate learning in oral and written form.</li> <li>• Develop ability to work as an individual and as a team member.</li> </ul>

**TE 2019 Course: Academic year: 2022-23, TE Semester I**

Course Code	Name of the Course	Course Outcome Statements
304181	Digital Communication	<ul style="list-style-type: none"> <li>• CO1: Apply the statistical theory for describing various signals in a communication system.</li> <li>• CO2: Understand and explain various digital modulation techniques used in digital communication systems and analyze their performance in presence of AWGN noise.</li> <li>• CO3: Describe and analyze the digital communication system with spread spectrum modulation.</li> <li>• CO4: Analyze a communication system using information theoretic approach.</li> <li>• CO5: Use error control coding techniques to improve performance of a digital communication system</li> </ul>
304182	Electromagnetic Field Theory	<ul style="list-style-type: none"> <li>• CO1: Apply the basic electromagnetic principles and determine the fields (E &amp; H) due to the given source.</li> <li>• CO2: Apply boundary conditions to the boundaries between various media to interpret behavior of the fields on either sides.</li> <li>• CO3: State, Identify and Apply Maxwell's equations (integral and differential forms) in both the forms (Static, time-varying or Time-harmonic field) for various sources, Calculate the time average power density using Poynting Theorem, Retarded magnetic vector potential.</li> <li>• CO4: Formulate, Interpret and solve simple uniform plane wave (Helmholtz Equations) equations, and analyze the incident/reflected/transmitted waves at normal incidence.</li> <li>• CO5: Interpret and Apply the transmission line equation to transmission line problems with load impedance to determine input and output voltage/current at any point on the Transmission line, Find input/load impedance, input/load admittance, reflection coefficient, SWR, <math>V_{max}/V_{min}</math>, length of transmission line using Smith Chart.</li> <li>• CO6: Carry out a detailed study, interpret the relevance and applications of Electromagnetics</li> </ul>
304183	Database Management	<ul style="list-style-type: none"> <li>• CO1: Ability to implement the underlying concepts of a database system.</li> <li>• CO2: Design and implement a database schema for a given problem-domain using data model.</li> </ul>

		<ul style="list-style-type: none"> <li>• CO3: Formulate, using SQL/DML/DDDL commands, solutions to a wide range of query and update problems.</li> <li>• CO4: Implement transactions, concurrency control, and be able to do Database recovery.</li> <li>• CO5: Able to understand various Parallel Database Architectures and its applications.</li> <li>• CO6: Able to understand various Distributed Databases and its applications.</li> </ul>
304184	Microcontroller	<ul style="list-style-type: none"> <li>• CO1: Understand the fundamentals of microcontroller and programming.</li> <li>• CO2: Interface various electronic components with microcontrollers.</li> <li>• CO3: Analyze the features of PIC 18F XXXX.</li> <li>• CO4: Describe the programming details in peripheral support.</li> <li>• CO5: Develop interfacing models according to applications.</li> <li>• CO6: Evaluate the serial communication details and interfaces.</li> </ul>
304185 (A):	Digital Signal Processing (Elective - I)	<ul style="list-style-type: none"> <li>• CO1: Interpret and process discrete/ digital signals and represent DSP system.</li> <li>• CO2: Analyze the digital systems using the Z-transform techniques.</li> <li>• CO3: Implement efficient transform and its application to analyze DT signals.</li> <li>• CO4: Design and implement IIR filters.</li> <li>• CO5: Design and implement FIR filters.</li> <li>• CO6: Apply DSP techniques for speech/ biomedical/ image signal processing</li> </ul>
304185 (B):	Electronic Measurements (Elective - I)	<ul style="list-style-type: none"> <li>• CO1: Understand the metrics for the measurement system</li> <li>• CO2: Select and use the instruments for measurement &amp; analysis of basic electronic parameters</li> <li>• CO3: Identify and use the different signal generators for specific applications</li> <li>• CO4: Understand the principles of different Oscilloscopes for specific applications</li> <li>• CO5: Identify the use of other display devices, recorders and timer/counter in measurement systems</li> <li>• CO6: Use the advanced measurement systems for electronics parameter measurement</li> </ul>
304185 (C):	Fundamentals of JAVA Programming (Elective - I)	<ul style="list-style-type: none"> <li>• CO1: Understand the basic principles of Java programming language</li> <li>• CO2: Apply the concepts of classes and objects to write programs in Java</li> <li>• CO3: Demonstrate the concepts of methods &amp; Inheritance</li> <li>• CO4: Use the concepts of interfaces &amp; packages for program implementation</li> <li>• CO5: Understand multithreading and Exception handling in Java to develop robust programs</li> </ul>

		<ul style="list-style-type: none"> <li>• CO6: Use Graphics class, AWT packages and manage input and output files in Java</li> </ul>
304185 (D):	Computer Networks (Elective - I)	<ul style="list-style-type: none"> <li>• CO1: Design LAN using appropriate networking architecture, topologies, transmission media, and networking devices.</li> <li>• CO2: Understand the working of controlling techniques for flawless data communication using data link layer protocols.</li> <li>• CO3: Learn the functions of network layer, various switching techniques and internet protocol addressing.</li> <li>• CO4: Explore various interior and exterior, unicasting and multicasting protocols.</li> <li>• CO5: Analyze data flow using TCP/UDP Protocols, congestion control techniques for QoS.</li> <li>• CO6: Illustrate the use of protocols at application layer.</li> </ul>
304190	Skill Development	<ul style="list-style-type: none"> <li>• CO1: Student should recognize the need to engage in independent and life-long learning in required skill sets</li> <li>• CO2: Student needs to experience the impact of industries on society by visiting different industries and understand the importance of industrial products for analog and digital circuits and systems.</li> <li>• CO3: Student has to make use of the modern electronic and IT Engineering Tools and Technologies for solving electronic engineering problems.</li> <li>• CO4: Student would be able to communicate effectively at different technical and administrative levels.</li> <li>• CO5: Student will exhibit leadership skills both as an individual and as a member in a team in multidisciplinary environment.</li> </ul>

**TE 2019 Course: Academic year: 2022-23, TE Semester II**

Course Code	Name of the Course	Course Outcome Statements
304192	Cellular Networks	<ul style="list-style-type: none"> <li>• CO1: Understand fundamentals of wireless communications.</li> <li>• CO2: Discuss and study OFDM and MIMO concepts.</li> <li>• CO3: Elaborate fundamentals mobile communication.</li> <li>• CO4: Describes aspects of wireless system planning.</li> <li>• CO5: Understand of modern and futuristic wireless networks architecture.</li> <li>• CO6: Summarize different issues in performance analysis.</li> </ul>
304193	Project Management	<ul style="list-style-type: none"> <li>• CO1: Apply the fundamental knowledge of project management for effectively handling the projects.</li> <li>• CO2: Identify and select the appropriate project based on</li> </ul>

		<p>feasibility study and undertake its effective planning.</p> <ul style="list-style-type: none"> <li>• CO3: Assimilate effectively within the organizational structure of project and handle project management related issues in an efficient manner.</li> <li>• CO4: Apply the project scheduling techniques to create a Project Schedule Plan and accordingly utilize the resources to meet the project deadline.</li> <li>• CO5: Identify and assess the project risks and manage finances in line with Project Financial Management Process.</li> <li>• CO6: Develop new products assessing their commercial viability and develop skillsets for becoming successful entrepreneurs while being fully aware of the legal issues related to Product development and Entrepreneurship.</li> </ul>
304194	Power Devices & Circuits	<ul style="list-style-type: none"> <li>• CO1: To differentiate based on the characteristic parameters among SCR, GTO, MOSFET &amp; IGBT and identify suitability of the power device for certain applications and understand the significance of device ratings.</li> <li>• CO2: To design triggering / driver circuits for various power devices.</li> <li>• CO3: To evaluate and analyze various performance parameters of the different converters and its topologies.</li> <li>• CO4: To understand significance and design of various protection circuits for power devices.</li> <li>• CO5: To evaluate the performance of uninterruptible power supplies, switch mode power supplies and battery.</li> <li>• CO6: To understand case studies of power electronics in applications like electric vehicles, solar systems etc.</li> </ul>
304195 (A):	Digital Image Processing (Elective - II)	<ul style="list-style-type: none"> <li>• CO1: Apply knowledge of mathematics for image understanding and analysis.</li> <li>• CO2: Implement spatial domain image operations.</li> <li>• CO3: Design and realize various algorithms for image segmentation.</li> <li>• CO4: Design and realize various algorithms for image Compression.</li> <li>• CO5: Apply restoration to remove noise in the image.</li> <li>• CO6: Describe the object recognition system.</li> </ul>
304195 (B):	Sensors in Automation (Elective - II)	<ul style="list-style-type: none"> <li>• CO1: Understand the Concepts of Sensors/Transducers, classify and evaluate static and Dynamic Characteristics of Measurement Systems.</li> <li>• CO2: Choose the proper sensor comparing different standards and guidelines for measurements of Temperature and Humidity.</li> <li>• CO3: Choose the proper sensor comparing different standards and guidelines for measurements of Force, Pressure, Stress and Flow</li> <li>• CO4: Choose the proper sensor comparing different standards and guidelines for measurements of Displacement, Vibration, Acceleration and Level</li> <li>• CO5: Explore sensors to profound areas like</li> </ul>

		<p>environmental, Agricultural and bio-medical equipment and sustainability.</p> <ul style="list-style-type: none"> <li>• CO6: Explore IoT based applications of Sensors and Transducers.</li> </ul>
304195 (C)	Advanced JAVA Programming (Elective - II)	<ul style="list-style-type: none"> <li>• CO1: Design and develop GUI applications using Applets.</li> <li>• CO2: Apply relevant AWT/ swing components to handle the given event.</li> <li>• CO3: Design and develop GUI applications using Abstract Windowing Toolkit (AWT), Swing and Event Handling.</li> <li>• CO4: Learn to access database through Java programs, using Java Database Connectivity (JDBC)</li> <li>• CO5: Invoke the remote methods in an application using Remote Method Invocation (RMI)</li> <li>• CO6: Develop program for client /server communication using Java Networking classes.</li> </ul>
304195 (D)	Embedded Processors (Elective - II)	<ul style="list-style-type: none"> <li>• CO1: Understand basics of Embedded C Programming and usage of Embedded C and study different software tools for programming microcontrollers.</li> <li>• CO2: Get acquainted with various Embedded Processor architectures related to industrial application.</li> <li>• CO3: Know about the programming of ARM 7 based microcontroller with on chip peripherals and external peripherals.</li> <li>• CO4: Understand the architectures of ARM Cortex M4 Microcontrollers and its advantages over ARM 7 Microcontrollers.</li> <li>• CO5: Implement the real world programming of ARM 7 based microcontroller with on chip peripherals and external peripherals.</li> <li>• CO6: Recognize the interfacing of real world sensors and standard buses. Will also able to design different case studies.</li> </ul>
304195 (E)	Network Security (Elective-II)	<ul style="list-style-type: none"> <li>• CO1: Analyze attacks on computers and computer security.</li> <li>• CO2: Demonstrate knowledge of cryptography techniques.</li> <li>• CO3: Illustrate various Symmetric and Asymmetric keys for Ciphers</li> <li>• CO4: Evaluate different Message Authentication Algorithms and Hash Functions</li> <li>• CO5: Get acquainted with various aspects of E-Mail Security</li> <li>• CO6: Assimilate various aspects of Web Security</li> </ul>
304199	Internship	<ul style="list-style-type: none"> <li>• CO1: To develop professional competence through internship.</li> <li>• CO2: To apply academic knowledge in a personal and professional environment.</li> <li>• CO3: To build the professional network and expose students to future employees.</li> <li>• CO4: Apply professional and societal ethics in their day to day life.</li> <li>• CO5: To become a responsible professional having social,</li> </ul>



		<p>economic and administrative considerations.</p> <ul style="list-style-type: none"> <li>• CO6: To make own career goals and personal aspirations</li> </ul>
304200	Mini Project	<ul style="list-style-type: none"> <li>• CO1: Understand, plan and execute a Mini Project with team.</li> <li>• CO2: Implement electronic hardware by learning PCB artwork design, soldering techniques, testing and troubleshooting etc.</li> <li>• CO3: Prepare a technical report based on the Mini project.</li> <li>• CO 4: Deliver technical seminar based on the Mini Project work carried out</li> </ul>

**BE 2019 Course: Academic year: 2022-23, BE Semester I**

Course Code	Name of the Course	Course Outcome Statements
404181	Radiation and Microwave Theory	<ul style="list-style-type: none"> <li>• CO1: Apply the fundamentals of electromagnetic to derive free space propagation equation and distinguish various performance parameters of antenna.</li> <li>• CO2: Identify various modes in the waveguide. Compare: coaxial line, rectangular waveguides &amp; striplines and identify applications of the same.</li> <li>• CO3: Explore construction and working of principles passive microwave devices/components.</li> <li>• CO4: Explore construction and working of principles active microwave devices/components.</li> <li>• CO5: Analyze the structure, characteristics, operation, equivalent circuits and applications of various microwave solid state active devices.</li> <li>• CO6: Know the various microwave systems, device set ups of microwave measurement devices and Identify the effect of radiations on environmental sustainability</li> </ul>
404182	VLSI Design and Technology	<ul style="list-style-type: none"> <li>• CO1: Develop effective HDL codes for digital design.</li> <li>• CO2: Apply knowledge of real time issues in digital design.</li> <li>• CO3: Model digital circuit with HDL, simulate, synthesis and prototype in PLDs.</li> <li>• CO4: Design CMOS circuits for specified applications.</li> <li>• CO5: Analyze various issues and constraints in design of an ASIC. CO6: Apply knowledge of testability in design and Build In Self Test (BIST) circuit.</li> </ul>
404183	Cloud Computing	<ul style="list-style-type: none"> <li>• CO1: Understand the basic concepts of Cloud Computing.</li> <li>• CO2: Describe the underlying principles of different Cloud Service Models.</li> <li>• CO3: Classify the types of Virtualization.</li> <li>• CO4: Examine the Cloud Architecture and understand the importance of Cloud Security.</li> <li>• CO5: Develop applications on Cloud Platforms. CO6: Evaluate distributed computing and the Internet of Things</li> </ul>
404184 (A)	Speech Processing (Elective -	<ul style="list-style-type: none"> <li>• CO1: Understand basics of Human speech production mechanism.</li> <li>• CO2: Classify speech sounds based on acoustic and</li> </ul>

	III)	<p>articulatory phonetics.</p> <ul style="list-style-type: none"> <li>• CO3: Analyse speech signal to extract the characteristic of vocal tract (formants) and vocal cords (pitch).</li> <li>• CO4: Evaluate speech signal for extracting LPC and MFCC Parameters of speech signal.</li> <li>• CO5: Implement algorithms for processing of speech and audio signals considering the properties of acoustic signals.</li> <li>• CO6: Design speech recognition application for speech signal analysis.</li> </ul>
404184 (B)	PLC SCADA and Automation (Elective - III)	<ul style="list-style-type: none"> <li>• CO1: Understand and Recognize Industrial Control Problems.</li> <li>• CO2: Analyze &amp; explain different hardware functions of PLC.</li> <li>• CO3: Develop Ladder Programming in PLC and PLC Interface in real time applications.</li> <li>• CO4: Explore and interpret functionality of SCADA.</li> <li>• CO5: Identify and interpret the functionality of DCS.</li> <li>• CO6: Define and explain CNC machines and Applications of Industrial Protocols</li> </ul>
404184 (C)	Java Script (Elective - III)	<ul style="list-style-type: none"> <li>• CO1: Use basic features of java script.</li> <li>• CO2: Use relevant data types for developing application in java script. CO3: Use the function and objects as self-contained, with data passing in and out through well-defined interfaces in development of small systems.</li> <li>• CO4: Apply the regular expression for Text matching and manipulation. CO5: Explore use of the various aspects of JavaScript object models that are fundamental to the proper use of the language.</li> <li>• CO6: Develop the application using windows controlling and form handling</li> </ul>
404184 (D)	Embedded System & RTOS (Elective - III)	<ul style="list-style-type: none"> <li>• CO1: Apply design metrics of Embedded systems to design real time applications to match recent trends in technology.</li> <li>• CO2: Apply Real time systems concepts.</li> <li>• CO3: Evaluate <math>\mu</math>COS operating system and its services.</li> <li>• CO4: Apply Embedded Linux Development Environment and testing tools.</li> <li>• CO5: Analyze Linux operating system and device drivers.</li> <li>• CO6: Analyze the hardware – software co design issues for testing of real time Embedded system</li> </ul>
404184 (E)	Modernized IoT (Elective - III)	<ul style="list-style-type: none"> <li>• CO1: Comprehend and analyze concepts of sensors, actuators, IoT and IoE.</li> <li>• CO2: Interpret IoT Architecture Design Aspects.</li> <li>• CO3: Comprehend the operation of IoT protocols.</li> <li>• CO4: Describe various IoT boards, interfacing, and programming for IoT.</li> <li>• CO5: Illustrate the technologies, Catalysts, and precursors of IIoT using suitable use cases.</li> <li>• CO6: Provide suitable solution for domain specific applications of IoT.</li> </ul>
404185	Data	<ul style="list-style-type: none"> <li>• CO1: Understand the process of data mining and</li> </ul>

(A)	Mining (Elective - IV)	<p>performance issues in data mining</p> <ul style="list-style-type: none"> <li>•</li> <li>• CO2: Apply data preprocessing techniques to the historical data collected in data warehouse</li> <li>• CO3: Analyze various types of Frequent pattern analysis methods and advanced Pattern mining techniques</li> <li>• CO4: Evaluate various data mining algorithms for developing effective data mining models</li> <li>• CO5: Analyze different clustering and outlier detection methods</li> <li>• CO6: Design data mining models in different mining application areas</li> </ul>
404185 (B)	Electronics Product Design (Elective - IV)	<ul style="list-style-type: none"> <li>• CO1: Understand and explain design flow of design of electronics product.</li> <li>• CO2: Associate with various circuit design issues and testing.</li> <li>• CO3: Inferring different software designing aspects and the Importance of product test &amp; test specifications.</li> <li>• CO4: Summarizing printed circuit boards and different parameters. CO5: Estimating assorted product design aspects.</li> <li>• CO6: Exemplifying special design considerations and importance of documentation.</li> </ul>
404185 (B)	Deep Learning (Elective - IV)	<ul style="list-style-type: none"> <li>• CO1: Classify machine learning algorithms and its types.</li> <li>• CO2: Discuss the concepts of deep learning and its Frameworks.</li> <li>• CO3: Identify the deep learning architectures with respect to the applications.</li> <li>• CO4: Demonstrate different architectures of Convolutional neural networks.</li> <li>• CO5: Discuss natural language processing architectures.</li> <li>• CO6: Make use of various case studies and deep learning applications</li> </ul>
404185 (D)	Low Power CMOS (Elective - IV)	<ul style="list-style-type: none"> <li>• CO1: Explain the sources of power dissipation in CMOS.</li> <li>• CO2: Classify the special techniques to mitigate the power consumption in CMOS circuits.</li> <li>• CO3: Summarize the power optimization and trade off techniques in digital circuits.</li> <li>• CO4: Illustrate the power estimation at logic and circuit level.</li> <li>• CO5: Explain the software design for low power in various level.</li> <li>• CO6: Use the CAD tools for low power synthesis.</li> </ul>
404185 (E)	Smart Antennas (Elective - IV)	<ul style="list-style-type: none"> <li>• CO1: Compare various linear wire antenna and uniform array in terms of antenna parameters and analyze them based on the current distribution and identify an appropriate wire antenna for given application.</li> <li>• CO2: Classify Microstrip &amp; re-configurable antenna and techniques. CO3: Describe smart antenna systems and discuss the beam steering and mutual coupling effects.</li> <li>• CO4: Explain DOA estimation methods and classify.</li> <li>• CO5: Classify the beam forming methods.</li> </ul>

		<ul style="list-style-type: none"> <li>• CO6: Describe and Compare MIMO systems.</li> </ul>
404188	Project Phase – I	<ul style="list-style-type: none"> <li>• CO1: Demonstrate a sound technical knowledge in field of E&amp;TC in the form of project.</li> <li>• CO2: Undertake real life problem identification, formulation and solution.</li> <li>• CO3: Design engineering solutions to complex problems utilizing a systematic approach.</li> <li>• CO4: Demonstrate the knowledge, effective communication skills and attitudes as professional engineer</li> </ul>

### **BE 2019 Course: Academic year: 2022-23, SE Semester II**

<b>Course Code</b>	<b>Name of the Course</b>	<b>Course Outcome Statements</b>
404190	Fiber Optic Communication	<ul style="list-style-type: none"> <li>• CO1: Explain the working of components and measurement equipments in optical fiber networks.</li> <li>• CO2: Calculate the important parameters associated with optical components used in fiber optic telecommunication systems.</li> <li>• CO3: Compare and contrast the performance of major components in optical links.</li> <li>• CO4: Evaluate the performance viability of optical links using the power and rise time budget analysis.</li> <li>• CO5: Design digital optical link by proper selection of components and check its viability using simulation tools.</li> <li>• CO6: Compile technical information related to state of art components, standards, simulation tools and current technological trends by accessing the online resources to update their domain knowledge.</li> </ul>
404191 (A)	Biomedical Signal Processing (Elective - V)	<ul style="list-style-type: none"> <li>• CO1: Describe the origin of various biomedical signals and Interpret the meaning of various parameters associated with biomedical signals</li> <li>• CO2: Analyze ECG Signals with extraction of meaningful information</li> <li>• CO3: Explain Processing of EEG signals for Diseases of Central Nervous System</li> <li>• CO4: Analyze EMG signals for understanding Neuromuscular Diseases</li> <li>• CO5: Analyze various Biomedical Signals</li> <li>• CO6: Process the biomedical signals to remove adaptive interference and noise</li> </ul>
404191 (B)	Industrial Drives & Control (Elective - V)	<ul style="list-style-type: none"> <li>• CO1: Understand significance and design of various components of electrical drives.</li> <li>• CO2: Develop, evaluate and analyze the performance of DC motor drives.</li> <li>• CO3: Design, estimate and examine the performance of chopper controlled DC drives.</li> <li>• CO4: Adapt, choose and categorize performance of PWM inverter drives for Induction motors.</li> </ul>

		<ul style="list-style-type: none"> <li>• CO5: Elaborate, interpret and analyze the performance of Synchronous motor drive.</li> <li>• CO6: Develop, explain and examine performance of stepper motor control.</li> </ul>
404191 (C)	Android Development (Elective - V)	<ul style="list-style-type: none"> <li>• CO1: Describe the process of developing mobile applications.</li> <li>• CO2: Create mobile applications on the different android platform. CO3: Design and implement mobile applications involving data storage in databases.</li> </ul>
404191 (D)	Embedded System Design (Elective - V)	<ul style="list-style-type: none"> <li>• CO1: Apply the design aspects of Embedded system.</li> <li>• CO2: Create and debug a firmware for the Embedded System using ARM Cortex M4.</li> <li>• CO3: Develop a specific software code for the functionality of the Embedded System.</li> <li>• CO4: Utilize an open source RTOS for embedded system design.</li> <li>• CO5: Design an advanced embedded system.</li> <li>• CO6: Explore Embedded Android system.</li> </ul>
404191 (E)	Mobile Computing (Elective - V)	<ul style="list-style-type: none"> <li>• CO1: Understand concepts of Mobile Communication.</li> <li>• CO2: Analyse next generation Mobile Communication System.</li> <li>• CO3: Understand network layers of Mobile Communication.</li> <li>• CO4: Understand IP and Transport layers of Mobile Communication. CO5: Study of different mathematical models.</li> <li>• CO6: Understand different mobile applications.</li> </ul>
404192 (A)	System on Chip (Elective - VI)	<ul style="list-style-type: none"> <li>• CO1: Understand the basic concepts and architecture of SOC.</li> <li>• CO2: Understand the basic terminology of Verilog HDL programming. CO3: Apply the various Verilog modeling styles in writing the design and testbench codes.</li> <li>• CO4: Understand the basic steps used in the VLSI Physical Design.</li> <li>• CO5: Understand the basic architecture of various processors used in SOC.</li> <li>• CO6: Understand the working principle of various Buses and memory used in SOC.</li> </ul>
404192 (B)	Nanoelectronic s (Elective - VI)	<ul style="list-style-type: none"> <li>• CO1: Understand the fundamental knowledge behind nanotechnology. CO2: Understand to Nano-CMOS technology.</li> <li>• CO3: Explore various Nanoelectronics material.</li> <li>• CO4: Understand the importance of carbon nanotubes.</li> <li>• CO5: Understand Nanomaterial and Nanodevice fabrication.</li> <li>• CO6: Understand various applications of Nanotechnology in Electronics.</li> </ul>
404192 (C)	Remote Sensing (Elective - VI)	<ul style="list-style-type: none"> <li>• CO1: Describe the concepts of remote sensing and electromagnetic radiation interaction.</li> <li>• CO2: Explain the sensors characteristics and analyze its resolution.</li> </ul>

		<ul style="list-style-type: none"> <li>• CO3: Classify different types of satellite data products and design various color composites.</li> <li>• CO4: Describe the fundamentals of microwave remote sensing.</li> <li>• CO5: Analyze GNSS signal structure and augmentation systems.</li> <li>• CO6: Demonstrate and describe real life applications of remote sensing</li> </ul>
404192 (D)	Digital Marketing (Elective - VI)	<ul style="list-style-type: none"> <li>• CO1: Design websites using free tools like Wordpress and explore it for digital marketing.</li> <li>• CO2: Apply various keywords for a website &amp; to perform SEO.</li> <li>• CO3: Understand the various SEM Tools and implement the Digital Marketing Tools.</li> <li>• CO4: Illustrate the use of Facebook, Instagram and Youtube for Digital Marketing in real life.</li> <li>• CO5: Use Linked in platform for various campaigning.</li> <li>• CO6: Understand the importance of recent trends in digital marketing</li> </ul>
404193	Innovation and Entrepreneurship	<ul style="list-style-type: none"> <li>• CO1: Understand Innovation, Entrepreneurship and characteristics of an entrepreneur.</li> <li>• CO2: Develop a strong understanding of the Design Process and its application in variety of business settings.</li> <li>• CO3: Generate sustainable ideas.</li> <li>• CO4: Explore various processes required to be an entrepreneur.</li> <li>• CO5: Understand patents and its process of filing.</li> <li>• CO6: Choose and use appropriate social media for marketing</li> </ul>
404194	Digital Business Management	<ul style="list-style-type: none"> <li>• CO1: Identify drivers of digital business.</li> <li>• CO2: Illustrate various approaches and techniques for E-business and management.</li> <li>• CO3: Prepare E-business plan.</li> </ul>



404192 (II)	Nanoelectronics (Elective - VI)	CO1: Understand the fundamental knowledge behind nanotechnology. CO2: Understand to Nano-CMOS technology. CO3: Explore various Nanoelectronics material. CO4: Understand the importance of carbon nanotubes. CO5: Understand Nanomaterial and Nanodevice fabrication. CO6: Understand various applications of Nanotechnology in Electronics.
404192 (Q)	Remote Sensing (Elective - VI)	CO1: Describe the concepts of remote sensing and electromagnetic radiation interaction. CO2: Explain the sensors characteristics and analyze its resolution. CO3: Classify different types of satellite data products and design various color composites. CO4: Describe the fundamentals of microwave remote sensing. CO5: Analyze GNSS signal structure and augmentation systems. CO6: Demonstrate and describe real life applications of remote sensing.
404192 (O)	Digital Marketing (Elective - VI)	CO1: Design websites using free tools like Wordpress and explore it for digital marketing. CO2: Apply various key words for a website & to perform SEO. CO3: Understand the various SEM Tools and implement the Digital Marketing Tools. CO4: Illustrate the use of Facebook, Instagram and Youtube for Digital Marketing in real life. CO5: Use Linked in platform for various campaigning. CO6: Understand the importance of recent trends in digital marketing.
404193	Innovation and Entrepreneurship	CO1: Understand Innovation, Entrepreneurship and characteristics of an entrepreneur. CO2: Develop a strong understanding of the Design Process and its application in variety of business settings. CO3: Generate sustainable ideas. CO4: Explore various processes required to be an entrepreneur. CO5: Understand patents and its process of filing. CO6: Choose and use appropriate social media for marketing.
404194	Digital Business Management	CO1: Identify drivers of digital business. CO2: Illustrate various approaches and techniques for E-business and management. CO3: Prepare E-business plan.

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Department of Information Technology  
 Government Engineering College  
 Technological Education  
 Department



## Academic Year 2022-23

Program Outcomes		
PO1	Engineering knowledge	An ability to apply knowledge of mathematics, computing, science, engineering and technology.
PO2	Problem analysis	An ability to define a problem and provide a systematic solution with the help of conducting experiments, analyzing the problem and interpreting the data.
PO3	Design / Development of Solutions	An ability to design, implement, and evaluate a software or a software/hardware system, component, or process to meet desired needs within realistic constraints.
PO4	Conduct Investigations of Complex Problems	An ability to identify, formulates, and provides systematic solutions to complex engineering/Technology problems.
PO5	Modern Tool Usage	An ability to use the techniques, skills, and modern engineering technology tools, standard processes necessary for practice as a IT professional.
PO6	The Engineer and Society	An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems with necessary constraints and assumptions.
PO7	Environment and Sustainability	An ability to analyze and provide solution for the local and global impact of information technology on individuals, organizations and society.



**Vision:** "To Satisfy the aspirations of youth force, who want to lead the nation towards prosperity through techno-economic development"

**Mission:** "To provide, nurture and maintain an environment of high academic excellence, research and entrepreneurship For all aspiring Students, which will prepare them to face global challenges maintaining high ethical and moral Standards"





JAYAWANT SHIKSHAN PRASARAK MANDAL'S  
**Bhivarabai Sawant Institute of Technology & Research**



**Prof. Dr. T. J. Sawant**  
 B.E. (Elec.) PGDM, Ph.D  
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**Dr. T.K. Nagaraj**  
 M.E. (Civil Engg), Ph.D (Civil Engg)  
 LMSTE, LMIS, LMIRC  
 LMISMTT, LMIE  
 Principal

\*\*\*Programs Accredited by National Board of Accreditation (NBA), New Delhi \*\*\*  
 \* Electrical Engineering \* Electronics and Telecommunication Engineering. \* Information Technology

PO8	Ethics	An ability to understand professional, ethical, legal, security and social issues and responsibilities.
PO9	Individual and Team Work	An ability to function effectively as an individual or as a team member to accomplish a desired goal(s).
PO10	Communication Skills	An ability to engage in life-long learning and continuing professional development to cope up with fast changes in the technologies/tools with the help of electives, professional organizations and extra-curricular activities.
PO11	Project Management and Finance	An ability to communicate effectively in engineering community at large by means of effective presentations, report writing, paper publications, demonstrations.
PO12	Life-long Learning	An ability to understand engineering, management, financial aspects, performance, optimizations and time complexity necessary for professional practice.



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## Program Educational Objectives

### PEO1

Possess strong fundamental concepts in mathematics, science, engineering and Technology to address technological challenges.

### PEO2

Possess knowledge and skills in the field of Computer Science and Information Technology for analyzing, designing and implementing complex engineering problems of any domain with innovative approaches.

### PEO3

Possess an attitude and aptitude for research, entrepreneurship and higher studies in the field of Computer Science and Information Technology.

### PEO4

Have commitment ethical practices, societal contributions through communities and life-long learning.

### PEO5

Possess better communication, presentation, time management and team work skills leading to responsible & competent professional sand will be able to address challenges in the field of IT at global level.



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### Program Specific Outcomes (PSO)

#### PSO1

An ability to apply the theoretical concepts and practical knowledge of Information Technology in analysis, design, development and management of information processing systems and applications in the interdisciplinary domain.

#### PSO2

An ability to analyze a problem, and identify and define the computing infrastructure and operations requirements appropriate to its solution. IT graduates should be able to work on large-scale computing systems.

#### PSO3

An understanding of professional, business and business processes, ethical, legal, security and social issues and responsibilities.

#### PSO4

Practice communication and decision-making skills through the use of appropriate technology and be ready for professional responsibilities.



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### LIST OF COURSE OUTCOMES

#### SECOND YEAR INFORMATION TECHNOLOGY 2022-'23

##### Course Code and Name: 214441: Discrete Mathematics

- CO1: Formalize and apply formal proof techniques and solve the problems with logical reasoning.
- CO2: Analyze and evaluate the combinatorial problems by using probability theory.
- CO3: Apply the concepts of graph theory to devise mathematical models.
- CO4: Analyze types of relations and functions to provide solution to computational problems.
- CO5: Identify techniques of number theory and its application.
- CO6: Identify fundamental algebraic structures.

##### Course Code and Name: 214442: Logic Design & Computer Organization

- CO1: Perform basic binary arithmetic & simplify logic expressions.
- CO2: Grasp the operations of logic ICs and Implement combinational logic functions using ICs.
- CO3: Comprehend the operations of basic memory cell types and Implement sequential logic functions using ICs.
- CO4: Elucidate the functions & organization of various blocks of CPU.
- CO5: Understand CPU instruction characteristics, enhancement features of CPU.
- CO6: Describe an assortment of memory types (with their characteristics) used in computer systems and basic principle of interfacing input, output devices.

##### Course Code and Name: 214443: Data Structure & Algorithms

- CO1: Perform basic analysis of algorithms with respect to time and space complexity.
- CO2: Select appropriate searching and/or sorting techniques in the application development.
- CO3: Implement abstract data type (ADT) and data structures for given application.
- CO4: Design algorithms based on techniques like brute -force, divide and conquer, greedy, etc.
- CO5: Apply implement learned algorithm design techniques and data structures to solve problems.
- CO6: Design different hashing functions and use files organizations.

##### Course Code and Name: 214444: Object-Oriented Programming

- CO1: Differentiate various programming paradigms.
- CO2: Identify classes, objects, methods, and handle object creation, initialization, and Destruction to model real-world problems.
- CO3: Identify relationship among objects using inheritance and polymorphism principles.
- CO4: Handle different types of exceptions and perform generic programming.
- CO5: Use of files for persistent data storage for real world application.
- CO6: Apply appropriate design patterns to provide object-oriented solutions.

##### Course Code and Name: 214445: Basics of Computer Network

- CO1: Understand and explain the concepts of communication theory and compare functions of OSI and TCP/IP model.
- CO2: Analyze data link layer services, error detection and correction, linear block codes, cyclic Codes, framing and flow control protocols.
- CO3: Compare different access techniques, channelization and IEEE standards.
- CO4: Apply the skills of subnetting, supernetting and routing mechanisms.
- CO5: Differentiate IPv4 and IPv6.
- CO6: Illustrate services and protocols used at transport layer.







**Course Code and Name: 214446: Logic Design & Computer Organization Lab**

- CO1: Use logic function representation for simplification with K-Maps and design Combinational logic circuits using SSI & MSI chips.  
 CO2: Design Sequential Logic circuits: MOD counters using synchronous counters.  
 CO3: Understand the basics of simulator tool & to simulate basic blocks such as ALU & memory.

**Course Code and Name: 214447: Data Structure & Algorithms Lab**

- CO1: Analyze algorithms and to determine algorithm correctness and time efficiency class.  
 CO2: Implement abstract data type (ADT) and data structures for given application.  
 CO3: Design algorithms based on techniques like brute-force, divide and conquer, greedy, etc.).  
 CO4: Solve problems using algorithmic design techniques and data structures.  
 CO5: Analyze of algorithms with respect to time and space complexity.

**Course Code and Name: 214448: Object Oriented Programming Lab**

- CO1: Differentiate various programming paradigms.  
 CO2: Identify classes, objects, methods, and handle object creation, initialization, and destruction to model real-world problems.  
 CO3: Identify relationship among objects using inheritance and polymorphism.  
 CO4: Handle different types of exceptions and perform generic programming.  
 CO5: Use file handling for real world application.  
 CO6: Apply appropriate design patterns to provide object-oriented solutions.

**Course Code and Name: 214449: Soft Skill Lab**

- CO1: Introspect about individual's goals, aspirations by evaluating one's SWOC and think creatively.  
 CO2: Develop effective communication skills including Listening, Reading, Writing and Speaking.  
 CO3: Constructively participate in group discussion, meetings and prepare and deliver Presentations.  
 CO4: Write precise briefs or reports and technical documents.  
 CO5: Practice professional etiquette, present oneself confidently and successfully handle personal interviews.  
 CO6: Function effectively in multi-disciplinary and heterogeneous teams through the knowledge of team work, Inter-personal relationships, conflict management and leadership quality.

**Course Code and Name: 314449 : 214450 ( D ) : Mandatory Audit Course 3: Cyber Security and Law**

- CO1: Understand the basic concepts of cyber security and its abilities  
 CO2: Analyse and evaluate the cyber security needs of an organization.  
 CO3: Understand the importance of cyber laws and its practices.  
 CO4: Determine and analyse software vulnerabilities and security solutions to reduce the risk of exploitation

**Course Code and Name: 207003: Engineering Mathematics III**

- CO1: Solve Linear differential equations, essential in modelling and design of computer-based systems.  
 CO2: Apply concept of Fourier transform & Z-transform and its applications to continuous and discrete systems and image processing.  
 CO3: Apply Statistical methods like correlation & regression analysis and probability theory for data analysis and predictions in machine learning.



**Course Code and Name: 214451: Processor Architecture**

- CO1: Apprehend architecture and memory organization of PIC 18 microcontroller.
- CO2: Implement embedded C programming for PIC 18.
- CO3: Use concepts of timers and interrupts of PIC 18.
- CO4: Demonstrate real life applications using PIC 18. CO5: Analyze architectural details of ARM processor.

**Course Code and Name: 214452: Database Management System**

- CO1: Apply fundamental elements of database management systems.
- CO2: Design ER-models to represent simple database application scenarios.
- CO3: Formulate SQL queries on data for relational databases.
- CO4: Improve the database design by normalization & to incorporate query processing.
- CO5: Apply ACID properties for transaction management and concurrency control. CO6:
- CO6: Analyze various database architectures and technologies.

**Course Code and Name: 214453: Computer Graphics**

- CO1: Apply mathematical and logical aspects for developing elementary graphics operations like scan conversion of points, lines, circle, and apply it for problem solving.
- CO2: Employ techniques of geometrical transforms to produce, position and manipulate Objects in 2 dimensional and 3-dimensional space respectively.
- CO3: Describe mapping from a world coordinates to device coordinates, clipping, and projections in order to produce 3D images on 2D output device.
- CO4: Apply concepts of rendering, shading, animation, curves and fractals using computer graphics tools in design, development and testing of 2D, 3D modeling applications.
- CO5: Perceive the concepts of virtual reality.

**Course Code and Name: 214454: Software Engineering**

- CO1: Classify various software application domains.
- CO2: Analyze software requirements by using various modeling techniques.
- CO3: Translate the requirement models into design models.
- CO4: Apply planning and estimation to any project.
- CO5: Use quality attributes and testing principles in software development life cycle.
- CO6: Discuss recent trends in Software engineering by using CASE and agile tools.

**Course Code and Name: 214455: Programming Skill Development Lab**

- CO1: Apply concepts related to embedded C programming.
- CO2: Develop and Execute embedded C program to perform array addition, block transfer, sorting operations
- CO3: Perform interfacing of real-world input and output devices to PIC18FXXX microcontroller.
- CO4: Use source prototype platform like Raspberry-Pi/Beagle board/Arduino.





**Course Code and Name:314456: Computer Network Security Lab**

- CO1: Design and configure small size network and associated networking commands.
- CO2: Understand various client/server environments to use application layer protocols.
- CO3: Use basic cryptographic techniques in software and system design.
- CO4: Apply methods for authentication, access control, intrusion detection.

**Course Code and Name:214456: Database Management System Lab**

- CO1: Install and configure database systems.
- CO2: Analyze database models & entity relationship models.
- CO3 : Design and implement a database schema for a given problem-domain
- CO4: Implement relational database systems.
- CO5: Populate and query a database using SQL DDL / DML / DCL commands.
- CO6 :Design a backend database of any one organization: CASE STUDY

**Course Code and Name:214457: Computer Graphics Lab**

- CO1: Apply line& circle drawing algorithms to draw the objects.
- CO2: Apply polygon filling methods for the object.
- CO3: Apply polygon clipping algorithms for the object.
- CO4: Apply the 2D transformations on the object.
- CO5: Implement the curve generation algorithms.
- CO6: Demonstrate the animation of any object using animation principles.

**Course Code and Name:214458: Project Based Learning**

- CO1: Design solution to real life problems and analyze its concerns through shared cognition.
- CO2: Apply learning by doing approach in PBL to promote lifelong learning.
- CO3: Tackle technical challenges for solving real world problems with team efforts.
- CO4: Collaborate and engage in multi-disciplinary learning environments





**LIST OF COURSE OUTCOMES**  
**THIRD YEAR INFORMATION TECHNOLOGY 2022-'23**

<b>Course Code and Name: 314441: Theory of Computation</b>
CO1: Construct finite automata and its variants to solve computing problems. CO2: Write regular expressions for the regular languages and finite automata. CO3: Identify types of grammar, design and simplify Context Free Grammar. CO4: Construct Pushdown Automata machine for the Context Free Language. CO5: Design and analyze Turing machines for formal languages. CO6: Understand decidable and undecidable problems, analyze complexity classes.
<b>Course Code and Name: 314442: Operating Systems</b>
CO1: Understanding the role of Modern Operating Systems. CO2: Apply the concepts of process and thread scheduling. CO3: Apply the concept of process synchronization, mutual exclusion and the deadlock. CO4: Understand and apply the concepts of various memory management techniques. CO5: Make use of concept of I/O management and File system. CO6: Understand Important of System software.
<b>Course Code and Name: 314443: Machine Learning</b>
CO1: Apply basic concepts of machine learning and different types of machine learning algorithms. CO2: Differentiate various regression techniques and evaluate their performance. CO3: Compare different types of classification models and their relevant application. CO4: Illustrate the tree-based and probabilistic machine learning algorithms. CO5: Identify different unsupervised learning algorithms for the related real world problems. CO6: Apply fundamental concepts of ANN.
<b>Course Code and Name: 314444: Human Computer Interaction</b>
CO1: Explain importance of HCI study and principles of user-centered design (UCD) approach. CO2: Develop understanding of human factors in HCI design. CO3: Develop understanding of models, paradigms, and context of interactions. CO4: Design effective user-interfaces following a structured and organized UCD process. CO5: Evaluate usability of a user-interface design. CO6: Apply cognitive models for predicting human-computer-interactions.
<b>Course Code and Name: 314445(D) : Elective -I : Advanced Database Management Systems</b>
CO1: Understand relational and object oriented databases CO2: Learn and understand parallel and distributed database architectures. CO3: Learn the concepts of NoSQL Databases CO4: Understand datawarehouse and OLAP technologies CO5: Apply data mining algorithms and to learn various software tools CO6: Learn emerging and enhanced data models for advanced applications
<b>Course Code and Name: 314446 : Operating Systems Lab</b>
CO1: Apply the basics of Linux commands. CO2: Build shell scripts for various applications. CO3: Implement basic building blocks like processes, threads under the Linux. CO4: Develop various system programs for the functioning of OS concepts in user space like concurrency control, CPU Scheduling, Memory Management and Disk Scheduling in Linux. CO5: Develop system programs for Inter Process Communication in Linux.



**Course Code and Name: 314447: Human Computer Interaction Laboratory**

- CO1: Differentiate between good design and bad design.
- CO2: Analyze creative design in the surrounding.
- CO3: Assess design based on feedback and constraint.
- CO4: Design paper-based prototypes and use wire frame.
- CO5: Implement user-interface design using web technology.
- CO6: Evaluate user-interface design using HCI evaluation techniques.

**Course Code and Name: 314448 : Laboratory Practice-I (Machine Learning)**

- CO1: Implement different supervised and unsupervised learning algorithms.
- CO2: Evaluate performance of machine learning algorithms for real-world applications.

**Course Code and Name: 314448 (D) : Laboratory Practice-I (Advanced Database Management Systems )**

- CO1: Understand advanced Database Programming Languages
- CO2: Master the basic concepts of NoSQL Databases
- CO3: Install and configure database Systems
- CO4: Populate and query a database using MongoDB commands
- CO5: Design data warehouse scheme of any one real time application
- CO6: Develop a small application with NoSQL Database for back end

**Course Code and Name: 314449 : Seminar**

- CO1: Understand, interpret and summarize technical literature.
- CO2: Demonstrate the techniques used in the paper.
- CO3: Distinguish the various techniques required to accomplish the task.
- CO4: Identify intended future work based on the technical review.
- CO5: Prepare and present the content through various presentation tools and techniques in effective manner.
- CO6: Keep audience engaged through improved interpersonal skills.

**Course Code and Name: Audit Course 314450 (B) : Startup Ecosystems**

- CO1: Identify Startup opportunities
- CO2: Explain legal and other requirements for new ventures
- CO3: Analyze financial issues of startups

**Course Code and Name: 314451: Computer Network and Security**

- CO1: Know Responsibilities, services offered and protocol used at application layer of network
- CO2: Understand wireless network and different wireless standards.
- CO3: Recognize the Adhoc Network's MAC layer, routing protocol and Sensor network architecture.
- CO4: Define the principal concepts of network security and Understand network security threats, security services, and countermeasures
- CO5: Apply basic cryptographic techniques in application development.
- CO6: Gain a good comprehension of the landscape of cyber security Vulnerabilities & describe typical threats to modern digital systems.

**Course Code and Name: 314452: Data Science and Big Data Analytics**

- CO1. To introduce basic need of Big Data and Data science to handle huge amount of data.
- CO2. To understand the basic mathematics behind the Big data.
- CO3. To understand the different Big data processing technologies.
- CO4. To understand and apply the Analytical concept of Big data using Python.
- CO5. To visualize the Big Data using different tools.
- CO6. To understand the application and impact of Big Data.





**Prof. Dr. T. J. Sawant**  
B.E. (Elec.) PGDM, Ph.D  
Founder Secretary

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LAMP, LAMP  
Principal

\*\*\*Programs Accredited by National Board of Accreditation (NBA), New Delhi\*\*\*  
\* Electrical Engineering \* Electronics and Telecommunication Engineering \* Information Technology

**Course Code and Name:314453: Web Application Development**

- CO1: Develop Static and Dynamic website using technologies like HTML, CSS, Bootstrap.
- CO2: Demonstrate the use of web scripting languages.
- CO3: Develop web application with Front End & Back End Technologies.
- CO4: Develop mobile website using JQuery Mobile.
- CO5: Deploy web application on cloud using AWS.

**Course Code and Name:314454 (B): Elective-II (Cyber Security )**

- CO1: To develop basic understanding of cyber security.
- CO2: Differentiate among different types of cyber threats and cyber-crimes.
- CO3: Illustrate cyber forensic techniques to identify the criminal activities.
- CO4: Apply forensic analysis tools to recover important evidence for identifying computercrime
- CO5: Distinguish and classify the forms of cybercriminal activity and the technological and social engineering methods used to undertake such crimes
- CO6: Evaluate the effectiveness of cyber-security, cyber-laws and other countermeasures against cybercrime

**Course Code and Name:314455: Internship**

- CO1: To develop professional competence through industry internship.
- CO2: To apply academic knowledge in a personal and professional environment
- CO3: To build the professional network and expose students to future employees.
- CO4: To Apply professional and societal ethics in their day to day life.
- CO5: To become a responsible professional having social, economic and administrative considerations.
- CO6: To make own career goals and personal aspirations.

**Course Code and Name:314456: Computer Network Security Lab**

- CO1: Design and configure small size network and associated networking commands.
- CO2: Understand various client/server environments to use application layer protocols.
- CO3: Use basic cryptographic techniques in software and system design.
- CO4: Apply methods for authentication, access control, intrusion detection.

**Course Code and Name:314457: DS & BDA Lab**

- CO1: Apply Big data primitives and fundamentals for application development.
- CO2: Explore different Big data processing techniques with use cases.
- CO3: Apply the Analytical concept of Big data using Python.
- CO4: Visualize the Big Data using Tableau.
- CO5: Design algorithms and techniques for Big data analytics.
- CO6: Design and develop Big data analytic application for emerging trends.

**Course Code and Name:314458: Laboratory Practice-II (Web Application Development)**

- CO1: Develop Static and Dynamic responsive website using technologies HTML, CSS, Bootstrap and AJAX.
- CO2: Create Version Control Environment.
- CO3: Develop an application using front end and backend technologies.
- CO4: Develop mobile website using JQuery Mobile.
- CO5: Deploy web application on cloud using AWS.



**Vision:** "To Satisfy the aspirations of youth force, who want to lead the nation towards prosperity through techno-economic development"  
**Mission:** "To provide, nurture and maintain an environment of high academic excellence, research and entrepreneurship For all aspiring Students, which will prepare them to face global challenges maintaining high ethical and moral Standards"







**Course Code and Name:314458: Lab Practice -II (Cyber Security)**

CO1: To know the different guidelines for Packet Sniffing in networking and internetworking environment.

CO2: To know the different types of cyber-attacks and will be able analyze theattacks.

CO3: Apply the knowledge of IDS to secure network and performing analysis of IDS attack on network.



**Vision:** "To Satisfy the aspirations of youth force, who want to lead the nation towards prosperity through techno-economic development"

**Mission:** "To provide, nurture and maintain an environment of high academic excellence, research and entrepreneurship For all aspiring Students, which will prepare them to face global challenges maintaining high ethical and moral Standards"



**LIST OF COURSE OUTCOMES****FINAL YEAR INFORMATION TECHNOLOGY 2022-'23**

<b>Course Code and Name: 414441: Information Storage and Retrieval</b>
CO1. Understand the concept of Information retrieval and to apply clustering in information retrieval.
CO2. Use an indexing approach for retrieval of text and multimedia data.
CO3. Evaluate performance of information retrieval systems.
CO4. Apply the concepts of multimedia and distributed information retrieval.
CO5. Use appropriate tools in analyzing the web information
CO6. Simulate the working of a search engine and recommender system.
<b>Course Code and Name: 414442: Software Project Management</b>
CO1. Apply the practices and methods for successful Software Project Management
CO2. Create Design and Evaluate Project
CO3. Analyze Project Schedule and calculate Risk Management with help of tools.
CO4. Demonstrate different tools used for Project Tracking, Monitoring & Control.
CO5. Identify Staff Selection Process and the issues related to Staff Management.
CO6. Discuss and use modern tools for Software Project Management.
<b>Course Code and Name: 414443: Deep Learning</b>
CO1. Understand the theoretical foundations, algorithms, and methodologies of Deep Learning.
CO2. Apply the concepts of Convolution Neural Networks and use of popular CNN architectures.
CO3. Compare Feed Forward Neural Network and Recurrent Neural Network and learn modeling the time dimension using RNN and LSTM.
CO4. Elaborate unsupervised deep learning algorithms like Autoencoders.
CO5. Explore Representation Learning and Transfer Learning techniques using variants of CNN architecture.
CO6. Evaluate the performance of deep learning algorithms and to provide solution for various real-world applications.
<b>Course Code and Name: 414444: Elective – III (Mobile Computing)</b>
CO1. Understand the basic concepts of mobile computing, MAC and different multiplexing technics.
CO2. Understand Protocols, Connection Establishment, Frequency Allocation, Routing of mobile telecommunication system like GSM, GPRS, UMTS.
CO3. Understand the Generations of Mobile Communication Technologies
CO4. Learn mobile IP , Adhoc – Network, Reactive Routing protocols, Multicast Routing
CO5. Obtaining knowledge of transport layer protocol TCP, File System, and different application layer protocols.
CO6. Gain knowledge different mobile platforms, operating Systems, Software Development Kit, Security Issues.
<b>Course Code and Name: 414445: Elective – IV (Wireless Communication)</b>
CO1: Articulate the fundamental concept of cellular system.
CO2: Analyse the fundamentals of cellular systems.
CO3: Illustrate multiple access technique for effective utilization of spectrum.
CO4: Design and analyse the WAP Programming Model in networking environment.
CO5: Learn and understand security issues, challenges and tools in wireless communication.
CO6: Explore the emerging trends and applications in wireless communication.



**Prof. Dr. T. J. Sawant**  
B.E. (Elec.) PGDM, Ph.D  
Founder Secretary

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**Dr. T.K. Nagaraj**  
ME. (Civil Engg), Ph.D (Civil Engg)  
LMISTE, LMISSE, LMIRC  
LMISRMTT, LME  
Principal

<b>Course Code and Name: 414446: Lab Practice III</b>
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- CO1. Understand the concept of Information retrieval and to apply clustering in information retrieval.
- CO2. Use appropriate indexing approach for retrieval of text and multimedia data, Evaluate performance of information retrieval systems.
- CO3. Apply appropriate tools in analyzing the web information.
- CO4. Map the concepts of the subject on recent developments in the Information retrieval field.

<b>Course Code and Name: 414447: Lab Practice IV</b>
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- CO1. Learn and Use various Deep Learning tools and packages.
- CO2. Build and train a deep Neural Network models for use in various applications.
- CO3. Apply Deep Learning techniques like CNN, RNN Auto encoders to solve real word Problems.
- CO4. Evaluate the performance of the model build using Deep Learning.

<b>Course Code and Name: 414448: Project Stage I</b>
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- CO1. To apply knowledge of mathematics, science, and engineering to formulate the Problem statement.
- CO2. To design and conduct experiments, as well as to analyze and interpret data.
- CO3. Understand the professional and ethical responsibility.
- CO4. To communicate effectively.
- CO5. Get broad education which is necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- CO6. Recognition of the need for, and an ability to engage in life-long learning.
- CO7. To use the techniques, skills, and modern engineering tools necessary for engineering practices.
- CO8. To design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.

<b>Course Code and Name: 414449A: Copyrights and Patents</b>
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- CO1. Understand the concepts of Intellectual Property Rights.
- CO2. Understand the knowledge about Copyrights and Trademark.
- CO3. Understand the knowledge how to protect trade secrets.

<b>Course Code and Name: 414450: Distributed Systems</b>
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- CO1. Demonstrate the core concepts of distributed systems.
- CO2. Understand the concept of middleware of distributed systems.
- CO3. Understand Inter-process communication methods and analyze different coordination algorithms.
- CO4. Comprehend the importance of replication to achieve fault tolerance in distributed systems.
- CO5. Analyze the design and functioning of existing distributed file systems, distributed multimedia, and distributed web-based systems.
- CO6. Understand various Recent Trends in distributed systems.

<b>Course Code and Name: 414451: Elective- V (Social Computing)</b>
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- CO1. Understand basics of Social Media Analytics
- CO2. Correlate Network Measures for Social Media Data
- CO3. Visualize mining in social media data





CO4. Discuss the Social Similarities  
CO5. Interpret social media behavior  
CO6. Apply Social Media Computations for Google+

**Course Code and Name: 414452: Elective VI (Business Analytics and Intelligence)**

CO1. Apply conceptual knowledge on how Business Intelligence is used in decision making process  
CO2. Use modelling concepts in Business Intelligence  
CO3. Understand and apply the concepts of business reports and analytics with the help of visualization for business performance management  
CO4. Comprehend the model-based decision making using prescriptive analytics  
CO5. Analyze the role of analytics and intelligence in Business  
CO6. Comprehend different Business Intelligence trends and its future impacts

**Course Code and Name: 414453: Startup and Entrepreneurship**

CO1. Able to understand key concepts and framework of innovation and start-up ecosystem.  
CO2. Gain knowledge of how to develop start up ecosystem, its key components and how to influence and manage dynamics between them and increase the productivity of ecosystem.  
CO3. Understand the role of different stakeholders in ecosystem in building and supporting growth of start-ups.  
CO4. Have insight into global trend in start-up ecosystem and product development.  
CO5. Mapping different start-up ecosystems and developing performance indicators.

**Course Code and Name: 414454: Lab Practice - V**

CO1. Demonstrate knowledge of the core concepts and techniques in distributed systems.  
CO2. Learn how to apply principles of state-of-the-Art Distributed systems in practical application.  
CO3. Design, build and test application programs on distributed systems

**Course Code and Name: 414455: Lab Practice VI (Ethical Hacking and Security)**

CO1. Perform internal and external vulnerability analysis on web application and network.  
CO2. Comprehend the hacker's mindset while conducting reconnaissance and system hacking.  
CO3. Implement industry standard security protocols to prevent cyber-attacks.  
CO4. Carry-out the same tactics, techniques, and procedures as actual hackers.

**Course Code and Name: 414456 : Project-II**

CO1. To apply engineering and mathematical knowledge to investigate / select proper technology / Algorithm suitable to solve the problem in hand.  
CO2. To apply knowledge of statistics for analysis of results and express conclusion and justification for the same.  
CO3. To design and conduct experiments, as well as to analyze and interpret data or develop prototype model of the application.  
CO4. To communicate effectively.  
CO5. Get broad education which is necessary to understand the impact of engineering solutions in a global, economic, environmental, ethically and societal context.  
CO6. Recognition of the need for, and an ability to engage in life-long learning.

## CO's and PO's attainment for AY 2022-23





Subject: Discrete Mathematics

LO / CO	DESCRIPTION
CO-1	Formulate and apply logical proof techniques and solve the problems with logical reasoning.
CO-2	Formulate and evaluate the combinatorial problems by using generating theory.
CO-3	Apply the concepts of graph theory to do the real-world situations.
CO-4	Analyze types of relations and functions, in particular relation to composition and graphs.
CO-5	Identify components of number theory and its application.
CO-6	Identify fundamental algebraic structures.

CO-PO MAPPING															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	
CO-1	2	1	1	1									1	1	
CO-2	1	1	1	1									1	1	
CO-3	1	1	1	1					1			1	1	1	
CO-4	1	1	1	1									1	1	
CO-5	1	1	1	1					1			1	1	1	
CO-6	1	1	1	1								1	1	1	
Average	1.36	1.28	1.28	1.28	0.00/0.0	0.00/0.0	0.00/0.0	0.00/0.0	0.00/0.0	1.21	0.00/0.0	0.00/0.0	1.07	1.28	1.07

Assessment Test and Matrix

Internal Test (IT)	CO1	CO2	CO3	CO4	CO5	CO6
Assessment	20	10	20	20	20	20
Test Test	20	10	20	20	20	20

External Test (ET)	CO1	CO2	CO3	CO4	CO5	CO6
THEORY	20	10	20	20	20	20
PROGRAM	20	10	20	20	20	20
THEORY PRACTICAL	20	20	20	20	20	20
TERM PROJECT	20	20	20	20	20	20

ATTAINMENT LEVELS

A (CO) 5	More than 90% Students scoring Threshold Marks (90% of 100 Marks)
B (CO) 4	80% to 90% Students scoring Threshold Marks (80% of 100 Marks)
C (CO) 3	Less than 80% Students scoring Threshold Marks (75% of 100 Marks)

## INTERNAL ASSESSMENT RECORD

SUBJECT/Geometre Mathematics

CLASS: SE SDW 1

Sl. No.	Roll No.	Name of Student	Assignment										Unit Test										Open Book Problem Solving									
			101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130
1	20000001	MAHESH KOTI LAMPURU	7	8	9	8	8	7	9	7	9	21	22	21	24	18	7	8	9	8	8	7	23	22	20	21	24	21				
2	20000002	ANURAG HARIDASAN PRASAD	8	7	9	7	8	8	11	9	10	11	10	13	9	7	9	7	8	9	8	8	20	20	20	20	25	27	25			
3	20000003	ANAS (V) LAKSHMIPATI	8	8	9	8	7	8	9	11	11	11	12	14	9	9	8	9	8	7	9	7	25	27	28	28	30	31	31			
4	20000004	ANURAG GANESH RAMU	8	7	9	7	8	8	9	11	10	9	10	9	9	7	9	7	8	9	8	7	24	24	26	24	30	31	31			
5	20000005	ANURAG ANAND SURESH	7	8	7	8	7	9	9	10	10	10	10	10	9	7	9	7	8	9	7	7	25	26	28	28	31	31	31			
6	20000006	ANURAG ANAND ANAND	8	8	9	7	8	7	11	11	10	10	10	10	9	10	9	7	8	7	8	7	27	28	28	28	30	30	30			
7	20000007	ANURAG ANAND ANAND	8	7	9	7	8	8	11	9	11	9	10	9	7	9	7	8	9	8	8	7	27	27	28	28	30	30	30			
8	20000008	ANANT ANANT SURESH	8	7	9	8	8	7	9	7	9	9	10	10	10	9	7	9	8	9	7	27	27	27	27	30	30	30				
9	20000009	ANANT ANANT ANAND	8	8	9	8	8	8	9	9	11	11	10	10	8	8	8	8	8	8	8	7	27	27	28	28	30	30	30			
10	20000010	ANANT ANANT ANAND	7	8	7	8	7	8	10	10	11	9	10	9	7	9	7	8	7	8	7	7	26	26	28	28	30	30	30			
11	20000011	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
12	20000012	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
13	20000013	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
14	20000014	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
15	20000015	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
16	20000016	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
17	20000017	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
18	20000018	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
19	20000019	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
20	20000020	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
21	20000021	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
22	20000022	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
23	20000023	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
24	20000024	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
25	20000025	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
26	20000026	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
27	20000027	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
28	20000028	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
29	20000029	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
30	20000030	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
31	20000031	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
32	20000032	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
33	20000033	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
34	20000034	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
35	20000035	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
36	20000036	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
37	20000037	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
38	20000038	ANANT ANANT ANAND	8	7	9	8	8	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			



**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Discrete Mathematics**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	ORAL / PRACTICAL	TERM WORK	CO1 TO CO6
			100	0	0	100
			10	0	0	10
1	S190738501	ARCHANA DATTA AMBHURE	65	0	0	65
2	S190738502	AWATADE HARSHVARDHAN PRAMOD	29	0	0	29
3	S190738503	BAHALE CHETANA VASANT	75	0	0	75
4	S190738504	BHANGALE DIGAMBAR MANOJ	52	0	0	52
5	S190738505	CHAVAN ANUJA SUKHDEV	76	0	0	76
6	S190738506	CHAVAN PAYAL BHARAT	33	0	0	33
7	S190738507	CHAVAN SWAMINI EKNATH	46	0	0	46
8	S190738508	DAHAT ARPIT RANJEETRAO	43	0	0	43
9	S190738509	DHAYGUDE VISHAL KANTILAL	40	0	0	40
10	S190738510	DHOMSE PURVA PRAVIN	53	0	0	53
11	S190738511	DHUMAL NEHA SUNIL	48	0	0	48
12	S190738512	DIPTI SOPANA DAKE	47	0	0	47
13	S190738513	DOSE YOGITA RAMESH	75	0	0	75
14	S190738514	GADGE GAURI BABAJI	83	0	0	83
15	S190738515	GORADE SAHIL JIJABHAU	75	0	0	75
16	S190738516	GUNDU AARYA PRAVIN	41	0	0	41
17	S190738517	HARSH RAJ PATEL	71	0	0	71
18	S190738518	INDORE PRERANA UTTAM	33	0	0	33
19	S190738519	JADHAV CHETAN BAJRANG	35	0	0	35
20	S190738520	JADHAV VYANKATESH BABASAHEB	57	0	0	57
21	S190738521	JAGTAP SAKSHI VINAYAK	44	0	0	44
22	S190738522	JEJURKAR ADITYA BALASAHEB	47	0	0	47
23	S190738523	KALE AKASH RAJENDRA	51	0	0	51
24	S190738524	KALE SANKET SUBHASH	68	0	0	68
25	S190738525	KAMBLE RANJIT DHANPAL	44	0	0	44
26	S190738526	KANDALKAR RUSHIKESH TRAMBAK	27	0	0	27
27	S190738527	KARCHE MAULI HIRAPPA	47	0	0	47
28	S190738528	KEDAR PRAMOD DHONDIIBHAU	40	0	0	40
29	S190738529	KHAIRE SHUBHAM NAVNATH	47	0	0	47
30	S190738530	KOKANE PRADEEP SHANKARRAO	39	0	0	39
31	S190738531	KOKANE ROHIT RAJENDRA	42	0	0	42
32	S190738532	KOLHE RITESH SHANTINATH	63	0	0	63
33	S190738533	KORADE MEGHARAJ MARUTI	50	0	0	50
34	S190738534	KULKARNI GANESH KASHINATH	82	0	0	82
35	S190738535	MAGAR RASHI RAJESH	47	0	0	47
36	S190738536	MANE SIDDHANT SURESH	40	0	0	40
37	S190738537	MEHTA MAYUR VISHAL	AB	0	0	AB
38	S190738538	NALAWADE VIRAJ JAYSING	55	0	0	55
39	S190738539	NIRPHAL ABHIJEET SAYAJI	87	0	0	87
40	S190738540	PABLE GAURAV DIGAMBAR	62	0	0	62
41	S190738541	PAIKEKARI PRATIK DHANAJI	30	0	0	30
42	S190738542	PANDARKAR GAURAV BHAUSAHEB	89	0	0	89
43	S190738543	PANDIT VIRAJ VIKAS	46	0	0	46
44	S190738544	PARSE POURNIMA DILIP	57	0	0	57
45	S190738545	PATEL FARZIN ASIFIKBAL	50	0	0	50
46	S190738546	PATIL ABHIJIT ASHOK	56	0	0	56



47	S190738547	PATIL ATUL SUYOG	18	0	0	18
48	S190738548	PATIL RITESH PRAKASH	54	0	0	54
49	S190738549	PATIL SHRUTIKA SHIRISH	32	0	0	32
50	S190738550	PATIL SWAPNIL DADASAHEB	39	0	0	39
51	S190738551	POKALE SWAPNIL VIJAY	79	0	0	79
52	S190738552	POTE SAURABH SUNIL	42	0	0	42
53	S190738553	PRAJAKTA PRABHAKAR LANDGE	75	0	0	75
54	S190738554	PUSDEKAR LOKESH DNYANESHWAR	39	0	0	39
55	S190738555	ROHAN GANESH LOKHANDE	57	0	0	57
56	S190738556	RUTUJA VIJAY SHITOLE	64	0	0	64
57	S190738557	SAGAR BALASAHEB GONJARE	72	0	0	72
58	S190738558	SAHIL YADAV MOTHER	46	0	0	46
59	S190738559	SAKORE ABHISHEK GANESH	50	0	0	50
60	S190738560	SAKSHI SANTOSH GHANWAT	41	0	0	41
61	S190738561	SALUNKE AJAY GANESH	27	0	0	27
62	S190738562	SALUNKE ROHAN BHARAT	54	0	0	54
63	S190738563	SANKET VIJAY JADHAV	35	0	0	35
64	S190738564	SHAIKH AYAN SHAUQAT	37	0	0	37
65	S190738565	SHAIKH MERAJ ASHFAQUE	36	0	0	36
66	S190738566	SHINDE RAMESHWAR KALIDASRAO	35	0	0	35
67	S190738567	SWAMI SHIVAM SOMANATH	27	0	0	27
68	S190738568	TANGADE PRATHMESH PRAVIN	53	0	0	53
69	S190738569	THOMBARE ANURADHA DADASAHEB	67	0	0	67
70	S190738570	THORVE SANSKRUTI DADASAHEB	70	0	0	70
71	S190738571	TILEKAR VAISHNAVI DATTATRAY	56	0	0	56
72	S190738572	TUSHAR ANIL KOLHE	34	0	0	34
73	S190738573	VARMA ARYAN OMPRAKASH	50	0	0	50
74	S190738574	WAGH KHUSHI SHEKHAR	43	0	0	43
75	S190738575	YADAV PRINCE SURESH	48	0	0	48
76	S190738576	YELAM SANKET VIJAY	43	0	0	43
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						75
<b>TOTAL NO. OF STUDENTS</b>						76
<b>CO ATTAINMENT in %</b>						98.68421053
<b>ATTAINMENT LEVEL</b>						3



<b>Direct Assessment</b>				
<b>CO</b>	<b>Continuous Internal Evaluation (CIE) [A]</b>	<b>Semester End Evaluation (SEE) [B]</b>	<b>OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)</b>	<b>ATTAINMENT LEVEL</b>
CO1	100.00	98.68	99.08	3.00
CO2	100.00	98.68	99.08	3.00
CO3	100.00	98.68	99.08	3.00
CO4	100.00	98.68	99.08	3.00
CO5	100.00	98.68	99.08	3.00
CO6	100.00	98.68	99.08	3.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

Table1: Target vs attainment (CIE)

<b>CO</b>	<b>CIE attainment</b>	<b>Gap</b>	<b>Action Planned</b>
1	100.00		
2	100.00		
3	100.00		
4	100.00		
5	100.00		
6	100.00		

Table 2: Target vs attainment (SEE)

<b>CO</b>	<b>SEE attainment</b>	<b>Gap</b>	<b>Action Planned</b>
1TO6	99.08		





**Topic: Logic Design and Computer Organization**

Sl. No.	CO	PO	LO
CO-1	PO1	PO2	PO3
CO-2	PO1	PO2	PO3
CO-3	PO1	PO2	PO3
CO-4	PO1	PO2	PO3
CO-5	PO1	PO2	PO3
CO-6	PO1	PO2	PO3
CO-7	PO1	PO2	PO3
CO-8	PO1	PO2	PO3

CO-PO MAPPING														
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1	1.00	1.00	1.00											
CO2	1.00	1.00	1.00											
CO3	1.00	1.00	1.00											
CO4	1.00	1.00	1.00											
CO5	1.00	1.00	1.00											
CO6	1.00	1.00	1.00											
CO7	1.00	1.00	1.00											
CO8	1.00	1.00	1.00											
Average	1.00	1.00	1.00											

**Assessment Tool and Matrix**

Assessment Tools (SBI)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	20	20	20	20	20	20
Unit Test	20	20	20	20	20	20

Assessment Tools (SBI)	PO1	PO2	PO3	PO4	PO5	PO6
Assignment	20	20	20	20	20	20
Unit Test	20	20	20	20	20	20
Project	20	20	20	20	20	20
Exam	20	20	20	20	20	20

ATTAINMENT LEVELS	
LEVEL 3	More than 75% Students scoring Threshold Marks (75%-(A1, C, D, F))
LEVEL 2	More than 50% Students scoring Threshold Marks (50%-(A1, C, D, F))
LEVEL 1	Less than 25% Students scoring Threshold Marks (25%-(A1, C, D, F))

## INTERNAL ASSESSMENT RECORD

SUBJECT: Logic Design and Computer Organization

Class: SE SEM: I

Sl. No.	Roll No.	Name of Student	Assessment												Lab Test				Project			
			CO1	CO2	CO3	CO4	CO5	CO6	CO7	CO8	CO9	CO10	CO11	CO12	CO13	CO14	CO15	CO16	CO17	CO18	CO19	CO20
1	2020001	ADARSH KOTI LAMPURU	7	8	9	8	8	7	8	11	12	11	14	13	15	13	11	15	15	11	15	15
2	2020002	ANUSHKA HARIDASAN PRASAD	8	7	9	7	8	8	10	9	10	11	12	13	15	15	15	14	14	15	15	15
3	2020003	ANUSUKA VOFIYAN MOOPI	8	8	9	8	7	8	9	11	11	11	14	13	17	15	15	11	15	15	15	15
4	2020004	ARUNJIT GUJARIKAMANI	8	7	9	7	8	8	9	11	10	9	12	9	17	15	15	15	15	15	15	15
5	2020005	ARUNJAN K SURESH	7	8	9	8	7	8	9	10	11	10	12	9	15	15	15	15	15	15	15	15
6	2020006	ARUNJAN KANAKAM	8	8	9	8	7	8	11	10	11	11	14	13	15	15	15	15	15	15	15	15
7	2020007	ARUNJAN KANAKAM	8	7	9	7	8	8	10	11	9	11	9	12	12	15	15	15	15	15	15	15
8	2020008	ARUNJAN KANAKAM	8	7	9	7	8	8	7	9	9	9	11	10	11	15	15	15	15	15	15	15
9	2020009	ARUNJAN KANAKAM	8	8	9	8	8	8	9	9	11	11	10	10	11	17	17	15	15	15	15	15
10	2020010	ARUNJAN KANAKAM	7	8	9	8	7	8	10	10	11	9	10	9	17	15	15	15	15	15	15	15
11	2020011	ARUNJAN KANAKAM	8	8	9	8	8	9	11	11	10	11	9	9	15	15	15	15	15	15	15	15
12	2020012	ARUNJAN KANAKAM	7	8	9	7	8	8	9	11	10	11	11	11	14	14	14	14	14	14	14	14
13	2020013	ARUNJAN KANAKAM	7	8	9	7	7	7	10	11	10	9	10	11	14	14	14	14	14	14	14	14
14	2020014	ARUNJAN KANAKAM	7	8	9	7	8	8	9	10	9	9	10	11	14	14	14	14	14	14	14	14
15	2020015	ARUNJAN KANAKAM	8	7	9	8	8	8	10	9	10	11	11	11	14	14	14	14	14	14	14	14
16	2020016	ARUNJAN KANAKAM	8	8	9	8	8	7	9	11	11	9	10	12	15	15	15	15	15	15	15	15
17	2020017	ARUNJAN KANAKAM	8	8	9	8	8	7	10	10	10	9	9	10	14	14	14	14	14	14	14	14
18	2020018	ARUNJAN KANAKAM	7	8	9	8	8	7	10	10	10	11	11	11	14	14	14	14	14	14	14	14
19	2020019	ARUNJAN KANAKAM	8	7	9	8	7	8	11	11	10	9	10	11	14	14	14	14	14	14	14	14
20	2020020	ARUNJAN KANAKAM	7	8	9	7	8	7	10	11	9	9	9	10	17	15	15	15	15	15	15	15
21	2020021	ARUNJAN KANAKAM	8	7	9	8	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14
22	2020022	ARUNJAN KANAKAM	8	8	9	8	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14
23	2020023	ARUNJAN KANAKAM	7	8	9	7	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14
24	2020024	ARUNJAN KANAKAM	7	8	9	7	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14
25	2020025	ARUNJAN KANAKAM	7	8	9	7	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14
26	2020026	ARUNJAN KANAKAM	7	8	9	7	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14
27	2020027	ARUNJAN KANAKAM	7	8	9	7	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14
28	2020028	ARUNJAN KANAKAM	7	8	9	7	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14
29	2020029	ARUNJAN KANAKAM	7	8	9	7	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14
30	2020030	ARUNJAN KANAKAM	7	8	9	7	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14
31	2020031	ARUNJAN KANAKAM	7	8	9	7	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14
32	2020032	ARUNJAN KANAKAM	7	8	9	7	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14
33	2020033	ARUNJAN KANAKAM	7	8	9	7	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14
34	2020034	ARUNJAN KANAKAM	7	8	9	7	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14
35	2020035	ARUNJAN KANAKAM	7	8	9	7	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14
36	2020036	ARUNJAN KANAKAM	7	8	9	7	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14
37	2020037	ARUNJAN KANAKAM	7	8	9	7	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14
38	2020038	ARUNJAN KANAKAM	7	8	9	7	8	8	9	10	10	11	11	11	14	14	14	14	14	14	14	14





**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Logic Design and Computer Organization**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	ORAL / PRACTICAL	TERM WORK	CO1 TO CO6
			100	25	25	150
1	5190738501	ARCHANA DATTA AMBHURE	45	22	20	87
2	5190738502	AWATADE HARSHVARDHAN PRAMOD	24	18	10	52
3	5190738503	BAHALE CHETANA VASANT	52	21	20	93
4	5190738504	BHANGALE DIGAMBAR MANOJ	40	10	4	54
5	5190738505	CHAVAN ANUJA SUKHDEV	75	23	22	120
6	5190738506	CHAVAN PAYAL BHARAT	24	15	6	45
7	5190738507	CHAVAN SWAMINI EKNATH	47	16	7	70
8	5190738508	DAHAT ARPIT RANJEETRAO	43	18	10	71
9	5190738509	DHAYGUDE VISHAL KANTILAL	37	15	10	62
10	5190738510	DHOMSE PURVA PRAVIN	46	18	16	80
11	5190738511	DHUMAL NEHA SUNIL	47	13	18	78
12	5190738512	DIPTI SOPANA DAKE	40	23	22	85
13	5190738513	DOSE YOGITA RAMESH	64	23	23	110
14	5190738514	GADGE GAURI BABAJI	59	22	20	101
15	5190738515	GORADE SAHIL JUABHAU	59	23	22	104
16	5190738516	GUNDU AARYA PRAVIN	44	12	11	67
17	5190738517	HARSH RAJ PATEL	56	20	23	99
18	5190738518	INDORE PRERANA UTTAM	44	20	17	81
19	5190738519	JADHAV CHETAN BAJRANG	16	19	17	52
20	5190738520	JADHAV VYANKATESH BABASAHEB	40	12	18	70
21	5190738521	JAGTAP SAKSHI VINAYAK	46	22	20	88
22	5190738522	JEJURKAR ADITYA BALASAHEB	40	23	23	86
23	5190738523	KALE AKASH RAJENDRA	48	16	17	81
24	5190738524	KALE SANKET SUBHASH	75	19	21	115
25	5190738525	KAMBLE RANJIT DHANPAL	13	12	14	39
26	5190738526	KANDALKAR RUSHIKESH TRAMBAK	40	18	18	76
27	5190738527	KARCHE MAULI HIRAPPA	42	16	12	70
28	5190738528	KEDAR PRAMOD DHONDIBHAU	24	15	12	51
29	5190738529	KHAIRE SHUBHAM NAVNATH	26	14	12	52
30	5190738530	KOKANE PRADEEP SHANKARRAO	36	15	16	67
31	5190738531	KOKANE ROHIT RAJENDRA	34	17	5	56
32	5190738532	KOLHE RITESH SHANTINATH	44	16	15	75
33	5190738533	KORADE MEGHARAJ MARUTI	58	22	20	100
34	5190738534	KULKARNI GANESH KASHINATH	71	22	20	113
35	5190738535	MAGAR RASHI RAJESH	50	23	23	96
36	5190738536	MANE SIDDHANT SURESH	41	13	14	68
37	5190738537	MEHTA MAYUR VISHAL	48	48	48	0
38	5190738538	NALAWADE VIRAJ JAYSING	55	15	17	87
39	5190738539	NIRPHAL ABHIJEET SAYAJI	61	18	14	93
40	5190738540	PABLE GAURAV DIGAMBAR	47	22	22	91
41	5190738541	PAJKEKARI PRATIK DHANAJI	11	12	12	35
42	5190738542	PANDARKAR GAURAV BHAUSAHEB	76	23	20	119
43	5190738543	PANDIT VIRAJ VIKAS	64	22	18	104
44	5190738544	PARSE POURNIMA DILIP	40	23	22	85
45	5190738545	PATEL FARZIN ASFIKBAL	27	10	6	43
46	5190738546	PATIL ABHIJIT ASHOK	43	18	21	82
47	5190738547	PATIL ATUL SUYOG	32	13	10	55
48	5190738548	PATIL RITESH PRAKASH	34	16	12	62
49	5190738549	PATIL SHRUTIKA SHIRISH	28	18	19	65
50	5190738550	PATIL SWAPNIL DADASAHEB	35	14	12	61
51	5190738551	POKALE SWAPNIL VIJAY	44	19	17	80
52	5190738552	POTE SAURABH SUNIL	32	13	15	60
53	5190738553	PRAJAKTA PRABHAKAR LANDGE	57	23	19	99

54	5190738554	PUSDEKAR LOKESH DNYANESHWAR	16	16	20	52
55	5190738555	ROHAN GANESH LOKHANDE	33	17	13	63
56	5190738556	RUTUJA VIJAY SHITOLE	74	22	19	115
57	5190738557	SAGAR BALASAHEB GONJARE	55	23	22	100
58	5190738558	SAHIL YADAV MOTHER	22	18	10	50
59	5190738559	SAKORE ABHISHEK GANESH	48	13	15	76
60	5190738560	SAKSHI SANTOSH GHANWAT	54	20	15	89
61	5190738561	SALUNKE AJAY GANESH	18	12	10	40
62	5190738562	SALUNKE ROHAN BHARAT	38	18	22	78
63	5190738563	SANKET VIJAY JADHAV	36	10	12	58
64	5190738564	SHAIKH AYAN SHAUQAT	33	12	10	55
65	5190738565	SHAIKH MERAJ ASHFAQUE	40	12	10	62
66	5190738566	SHINDE RAMESHWAR KALIDASRAO	32	19	16	67
67	5190738567	SWAMI SHIVAM SOMANATH	29	22	22	73
68	5190738568	TANGADE PRATHMESH PRAVIN	52	21	20	93
69	5190738569	THOMBARE ANURADHA DADASAHEB	61	23	22	106
70	5190738570	THORVE SANSKRUTI DADASAHEB	54	23	22	99
71	5190738571	TILEKAR VAISHNAVI DATTATRAY	41	23	23	87
72	5190738572	TUSHAR ANIL KOLHE	7	12	16	35
73	5190738573	VARMA ARYAN OMPRAKASH	65	16	20	101
74	5190738574	WAGH KHUSHI SHEKHAR	44	20	19	83
75	5190738575	YADAV PRINCE SURESH	21	13	15	49
76	5190738576	YELAM SANKET VIJAY	46	17	18	81
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						<b>41</b>
<b>TOTAL NO. OF STUDENTS</b>						<b>76</b>
<b>CO ATTAINMENT in %</b>						<b>53.94736842</b>
<b>ATTAINMENT LEVEL</b>						<b>2</b>

Direct Assessment				
CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	100.00	53.95	67.76	2.00
CO2	100.00	53.95	67.76	2.00
CO3	100.00	53.95	67.76	2.00
CO4	100.00	53.95	67.76	2.00
CO5	98.68	53.95	67.37	2.00
CO6	100.00	53.95	67.76	2.00

1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks

2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)

Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	100.00		
2	100.00		
3	100.00		
4	100.00		
5	98.68		
6	100.00		

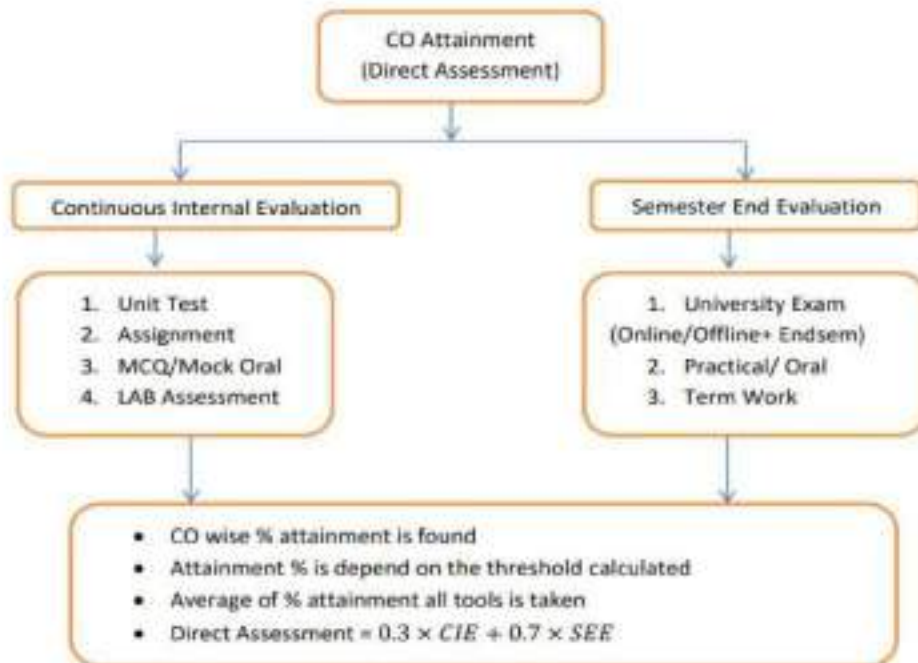
Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	67.37		









**Subject: Data Structures and Algorithms**

LO / Task	DESCRIPTION
CO1	Perform basic operations on algorithms with respect to time and space complexity.
CO2	Apply appropriate search and sorting techniques in the application development.
CO3	Implement abstract data type (ADT) and data structures for given applications.
CO4	Design algorithms based on techniques like Greedy, Divide and Conquer, Dynamic, etc.
CO5	Apply graph-based algorithms design techniques and data structures to solve problems.
CO6	Design different hashing functions and run time optimizations.

COURSE MAPPING													
LO	DS1	DS2	DS3	DS4	DS5	DS6	DS7	DS8	DS9	DS10	DS11	DS12	DS13
CO1	100	100	100	100	100	100	100	100	100	100	100	100	100
CO2	100	100	100	100	100	100	100	100	100	100	100	100	100
CO3	100	100	100	100	100	100	100	100	100	100	100	100	100
CO4	100	100	100	100	100	100	100	100	100	100	100	100	100
CO5	100	100	100	100	100	100	100	100	100	100	100	100	100
CO6	100	100	100	100	100	100	100	100	100	100	100	100	100
Average	100	100	100	100	100	100	100	100	100	100	100	100	100

**Assessment Test and Matrix**

Internal Test (CT)	CT1	CT2	CT3	CT4	CT5	CT6
Assessment	20	20	20	20	20	20
Test Test	20	20	20	20	20	20

External Test (TE)	TE1	TE2	TE3	TE4	TE5	TE6
THEORY	20	20	20	20	20	20
PROGRAM	20	20	20	20	20	20
THEORY PRACTICAL	20	20	20	20	20	20
TERM PROJECT	20	20	20	20	20	20

**ATTAINMENT LEVELS**

LEVEL 5	More than 90% Students scoring Threshold Marks (90% of 100%)
LEVEL 4	80% to 90% Students scoring Threshold Marks (80% of 100%)
LEVEL 3	Less than 80% Students scoring Threshold Marks (75% of 100%)





**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Data Structures and Algorithms**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	ORAL / PRACTICAL	TERM WORK	CO1 TO CO6
			100	25	25	150
1	5190738501	ARCHANA DATTA AMBHURE	51	20	17	88
2	5190738502	AWATADE HARSHVARDHAN PRAMOD	20	17	18	55
3	5190738503	BAHALE CHETANA VASANT	76	21	18	115
4	5190738504	BHANGALE DIGAMBAR MANOJ	41	18	20	79
5	5190738505	CHAVAN ANUJA SUKHDEV	80	22	22	124
6	5190738506	CHAVAN PAYAL BHARAT	20	21	20	61
7	5190738507	CHAVAN SWAMINI EKNATH	48	20	17	85
8	5190738508	DAHAT ARPIT RANJEETRAO	19	19	18	56
9	5190738509	DHAYGUDE VISHAL KANTILAL	36	21	20	77
10	5190738510	DHOMSE PURVA PRAVIN	70	19	18	107
11	5190738511	DHUMAL NEHA SUNIL	34	20	10	64
12	5190738512	DIPTI SOPANA DAKE	57	18	21	96
13	5190738513	DOSE YOGITA RAMESH	77	23	22	122
14	5190738514	GADGE GAURI BABAJI	68	23	22	113
15	5190738515	GORADE SAHIL JUABHAU	69	21	16	106
16	5190738516	GUNDU AARYA PRAVIN	39	22	19	80
17	5190738517	HARSH RAJ PATEL	64	19	23	106
18	5190738518	INDORE PRERANA UTTAM	38	20	18	76
19	5190738519	JADHAV CHETAN BAJRANG	33	20	11	64
20	5190738520	JADHAV VYANKATESH BABASAHEB	55	19	13	87
21	5190738521	JAGTAP SAKSHI VINAYAK	53	22	18	93
22	5190738522	JEJURKAR ADITYA BALASAHEB	41	22	19	82
23	5190738523	KALE AKASH RAJENDRA	47	20	15	82
24	5190738524	KALE SANKET SUBHASH	70	20	17	107
25	5190738525	KAMBLE RANJIT DHANPAL	29	15	5	49
26	5190738526	KANDALKAR RUSHIKESH TRAMBAK	37	21	14	72
27	5190738527	KARCHE MAULI HIRAPPA	40	22	18	80
28	5190738528	KEDAR PRAMOD DHONDIBHAU	34	16	10	60
29	5190738529	KHAIRE SHUBHAM NAVNATH	42	12	16	70
30	5190738530	KOKANE PRADEEP SHANKARRAO	56	19	10	85
31	5190738531	KOKANE ROHIT RAJENDRA	27	22	17	66
32	5190738532	KOLHE RITESH SHANTINATH	46	21	18	85
33	5190738533	KORADE MEGHARAJ MARUTI	26	21	18	65
34	5190738534	KULKARNI GANESH KASHINATH	71	22	21	114
35	5190738535	MAGAR RASHI RAJESH	47	22	17	86
36	5190738536	MANE SIDDHANT SURESH	30	20	20	70
37	5190738537	MEHTA MAYUR VISHAL	48	48	48	0
38	5190738538	NALAWADE VIRAJ JAYSING	51	20	13	84
39	5190738539	NIRPHAL ABHIJEET SAYAJI	47	23	20	90
40	5190738540	PABLE GAURAV DIGAMBAR	50	22	19	91
41	5190738541	PAJKEKARI PRATIK DHANAJI	27	18	17	62
42	5190738542	PANDARKAR GAURAV BHAUSAHEB	75	23	23	121
43	5190738543	PANDIT VIRAJ VIKAS	54	21	16	91
44	5190738544	PARSE POURNIMA DILIP	53	21	22	96
45	5190738545	PATEL FARZIN ASFIKBAL	41	18	10	69
46	5190738546	PATIL ABHIJIT ASHOK	47	22	15	84
47	5190738547	PATIL ATUL SUYOG	21	18	22	61
48	5190738548	PATIL RITESH PRAKASH	50	18	12	80
49	5190738549	PATIL SHRUTIKA SHIRISH	32	19	20	71
50	5190738550	PATIL SWAPNIL DADASAHEB	35	20	15	70
51	5190738551	POKALE SWAPNIL VIJAY	57	20	13	90
52	5190738552	POTE SAURABH SUNIL	31	15	16	62
53	5190738553	PRAJAKTA PRABHAKAR LANDGE	54	23	23	100



54	5190738554	PUSDEKAR LOKESH DNYANESHWAR	41	17	19	77
55	5190738555	ROHAN GANESH LOKHANDE	45	20	17	82
56	5190738556	RUTUJA VIJAY SHITOLE	66	22	20	108
57	5190738557	SAGAR BALASAHEB GONJARE	74	21	17	112
58	5190738558	SAHIL YADAV MOTHER	25	19	10	54
59	5190738559	SAKORE ABHISHEK GANESH	26	16	18	60
60	5190738560	SAKSHI SANTOSH GHANWAT	54	21	20	95
61	5190738561	SALUNKE AJAY GANESH	4	15	10	29
62	5190738562	SALUNKE ROHAN BHARAT	34	14	11	59
63	5190738563	SANKET VIJAY JADHAV	14	19	20	53
64	5190738564	SHAIKH AYAN SHAUQAT	12	11	4	27
65	5190738565	SHAIKH MERAJ ASHFAQUE	26	14	18	58
66	5190738566	SHINDE RAMESHWAR KALIDASRAO	40	20	21	81
67	5190738567	SWAMI SHIVAM SOMANATH	33	19	6	58
68	5190738568	TANGADE PRATHMESH PRAVIN	64	23	22	109
69	5190738569	THOMBARE ANURADHA DADASAHEB	66	23	22	111
70	5190738570	THORVE SANSKRUTI DADASAHEB	55	21	14	90
71	5190738571	TILEKAR VAISHNAVI DATTATRAY	49	18	12	79
72	5190738572	TUSHAR ANIL KOLHE	40	12	2	54
73	5190738573	VARMA ARYAN OMPRAKASH	64	22	22	108
74	5190738574	WAGH KHUSHI SHEKHAR	63	20	17	100
75	5190738575	YADAV PRINCE SURESH	34	13	10	57
76	5190738576	YELAM SANKET VIJAY	46	20	20	86
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						<b>47</b>
<b>TOTAL NO. OF STUDENTS</b>						<b>76</b>
<b>CO ATTAINMENT in %</b>						<b>61.84210526</b>
<b>ATTAINMENT LEVEL</b>						<b>2</b>

Direct Assessment				
CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	85.53	61.84	68.95	2.00
CO2	89.47	61.84	70.13	2.00
CO3	94.74	61.84	71.71	2.00
CO4	81.58	61.84	67.76	2.00
CO5	92.11	61.84	70.92	2.00
CO6	86.84	61.84	69.34	2.00

1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks

2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)

Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	85.53		
2	89.47		
3	94.74		
4	81.58		
5	92.11		
6	86.84		

Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	70.92		





**Subject: Object Oriented Programming**

CO	Learning Objectives
CO1	Explain basic object programming paradigm.
CO2	Identify classes, objects, methods, and basic object creation, manipulation and Destruction to solve real world problems.
CO3	Identify relationship among objects using inheritance and polymorphism principle.
CO4	Identify different types of exception and how to handle programatically.
CO5	Use of files for persistent data storage for real world applications.
CO6	Apply appropriate design patterns to provide object oriented solutions.

CO PO MAPPING														
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1	1.00	1.00	1.00	1.00	1.00				1.00				1.00	1.00
CO2	1.00	1.00	1.00	1.00									1.00	1.00
CO3	1.00	1.00	1.00	1.00		1.00			1.00				1.00	1.00
CO4	1.00	1.00	1.00										1.00	1.00
CO5	1.00	1.00	1.00						1.00				1.00	1.00
CO6	1.00	1.00	1.00										1.00	1.00
Average	1.00	1.00	1.00	1.00	1.00	1.00			1.00				1.00	1.00

**Assessment Tool and Matrix**

Internal Tools (CTE)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	20	10	20	20	20	20
End Test	20	10	20	20	20	20

External Tools (GATE)	CO1	CO2	CO3	CO4	CO5	CO6
THEORY	20	10	20	20	20	20
PROGRAM	20	10	20	20	20	20
ORAL / PRACTICAL	20	10	20	20	20	20
TERM PROJECT	20	10	20	20	20	20

**ATTAINMENT LEVELS**

LEVEL 5	More than 75% Students scoring Threshold Marks (75% x SL) (100%)
LEVEL 4	60% to 74% Students scoring Threshold Marks (60% x SL) (75%)
LEVEL 3	Less than 60% Students scoring Threshold Marks (60% x SL) (50%)



## INTERNAL ASSESSMENT RECORD

SUBJECT: Object Oriented Programming

Class: SE SEM: I

Sl. No.	Roll No.	Name of Student	Assignment										Lab Test									
			001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020
1	SRINIVAS	MACHINA SRI LAKSHMI	13	12	9	10	11	9	8	9	8	9	7	20	20	19	18	18	18	18		
2	SRINIVAS	MAHESH KANAKALAKSHMI PRASAD	12	9	10	10	10	10	8	7	9	7	9	18	18	18	18	18	18	18		
3	SRINIVAS	MAHA (V) LAKSHMI	14	8	10	10	9	11	7	8	8	7	8	17	17	17	17	17	17	17		
4	SRINIVAS	MAHESH KANAKALAKSHMI	10	9	10	10	10	10	7	7	8	7	8	17	17	17	17	17	17	17		
5	SRINIVAS	MAHESH KANAKALAKSHMI	10	10	10	10	11	11	8	8	8	7	8	18	18	18	18	18	18	18		
6	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	9	10	10	8	8	8	7	8	18	18	18	18	18	18	18		
7	SRINIVAS	MAHESH KANAKALAKSHMI	9	9	9	9	11	11	7	7	8	7	8	18	18	18	18	18	18	18		
8	SRINIVAS	MAHESH KANAKALAKSHMI	11	9	9	10	11	10	9	7	8	7	8	17	17	17	17	17	17	17		
9	SRINIVAS	MAHESH KANAKALAKSHMI	9	10	10	10	9	10	7	7	8	7	8	18	18	18	18	18	18	18		
10	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	11	8	8	8	7	8	18	18	18	18	18	18	18		
11	SRINIVAS	MAHESH KANAKALAKSHMI	9	10	10	10	10	10	7	7	8	7	8	17	17	17	17	17	17	17		
12	SRINIVAS	MAHESH KANAKALAKSHMI	12	11	10	10	9	10	7	7	8	7	8	18	18	18	18	18	18	18		
13	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
14	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
15	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
16	SRINIVAS	MAHESH KANAKALAKSHMI	10	10	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
17	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
18	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
19	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
20	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
21	SRINIVAS	MAHESH KANAKALAKSHMI	9	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
22	SRINIVAS	MAHESH KANAKALAKSHMI	12	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
23	SRINIVAS	MAHESH KANAKALAKSHMI	9	10	10	10	10	10	7	7	8	7	8	17	17	17	17	17	17	17		
24	SRINIVAS	MAHESH KANAKALAKSHMI	9	10	10	10	10	10	7	7	8	7	8	17	17	17	17	17	17	17		
25	SRINIVAS	MAHESH KANAKALAKSHMI	9	10	10	10	10	10	7	7	8	7	8	17	17	17	17	17	17	17		
26	SRINIVAS	MAHESH KANAKALAKSHMI	9	10	10	10	10	10	7	7	8	7	8	17	17	17	17	17	17	17		
27	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
28	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
29	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
30	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
31	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
32	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
33	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
34	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
35	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
36	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
37	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
38	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
39	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
40	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
41	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
42	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
43	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
44	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
45	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
46	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
47	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		
48	SRINIVAS	MAHESH KANAKALAKSHMI	11	11	10	10	11	10	8	8	8	7	8	18	18	18	18	18	18	18		

30	SCIENCE	SCIENCE ANSWER SHEET	11	11	30	10	8	14	1	1	4	0	0	7	10	10	20	20	20	21
40	SCIENCE	SCIENCE ANSWER SHEET	12	12	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
41	SCIENCE	SCIENCE ANSWER SHEET	13	13	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
42	SCIENCE	SCIENCE ANSWER SHEET	14	14	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
43	SCIENCE	SCIENCE ANSWER SHEET	15	15	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
44	SCIENCE	SCIENCE ANSWER SHEET	16	16	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
45	SCIENCE	SCIENCE ANSWER SHEET	17	17	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
46	SCIENCE	SCIENCE ANSWER SHEET	18	18	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
47	SCIENCE	SCIENCE ANSWER SHEET	19	19	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
48	SCIENCE	SCIENCE ANSWER SHEET	20	20	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
49	SCIENCE	SCIENCE ANSWER SHEET	21	21	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
50	SCIENCE	SCIENCE ANSWER SHEET	22	22	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
51	SCIENCE	SCIENCE ANSWER SHEET	23	23	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
52	SCIENCE	SCIENCE ANSWER SHEET	24	24	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
53	SCIENCE	SCIENCE ANSWER SHEET	25	25	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
54	SCIENCE	SCIENCE ANSWER SHEET	26	26	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
55	SCIENCE	SCIENCE ANSWER SHEET	27	27	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
56	SCIENCE	SCIENCE ANSWER SHEET	28	28	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
57	SCIENCE	SCIENCE ANSWER SHEET	29	29	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
58	SCIENCE	SCIENCE ANSWER SHEET	30	30	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
59	SCIENCE	SCIENCE ANSWER SHEET	31	31	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
60	SCIENCE	SCIENCE ANSWER SHEET	32	32	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
61	SCIENCE	SCIENCE ANSWER SHEET	33	33	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
62	SCIENCE	SCIENCE ANSWER SHEET	34	34	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
63	SCIENCE	SCIENCE ANSWER SHEET	35	35	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
64	SCIENCE	SCIENCE ANSWER SHEET	36	36	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
65	SCIENCE	SCIENCE ANSWER SHEET	37	37	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
66	SCIENCE	SCIENCE ANSWER SHEET	38	38	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
67	SCIENCE	SCIENCE ANSWER SHEET	39	39	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
68	SCIENCE	SCIENCE ANSWER SHEET	40	40	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
69	SCIENCE	SCIENCE ANSWER SHEET	41	41	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
70	SCIENCE	SCIENCE ANSWER SHEET	42	42	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
71	SCIENCE	SCIENCE ANSWER SHEET	43	43	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
72	SCIENCE	SCIENCE ANSWER SHEET	44	44	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
73	SCIENCE	SCIENCE ANSWER SHEET	45	45	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
74	SCIENCE	SCIENCE ANSWER SHEET	46	46	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
75	SCIENCE	SCIENCE ANSWER SHEET	47	47	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
76	SCIENCE	SCIENCE ANSWER SHEET	48	48	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
77	SCIENCE	SCIENCE ANSWER SHEET	49	49	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
78	SCIENCE	SCIENCE ANSWER SHEET	50	50	30	10	12	10	1	4	0	0	7	7	10	10	20	20	20	21
<b>STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>															50	50	60	60	63	71
<b>TOTAL NO. OF STUDENTS</b>															<b>76</b>					
<b>CO ATTAINMENT %</b>															71.1	62.5	76.9	76.9	61.8	97.1
<b>ATTAINMENT LEVEL</b>															1	1	3	4	4	4

**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT: Object Oriented Programming**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	ORAL / PRACTICAL	TERM WORK	CO1 TO CO6
			100	25	25	150
			10	10	10	
1	5190738501	ARCHANA DATTA AMBHURE	56	21	12	89
2	5190738502	AWATADE HARSHVARDHAN PRAMOD	22	20	10	52
3	5190738503	BAHALE CHETANA VASANT	76	21	20	117
4	5190738504	BHANGALE DIGAMBAR MANOJ	51	19	12	82
5	5190738505	CHAVAN ANUJA SUKHDEV	78	21	20	119
6	5190738506	CHAVAN PAYAL BHARAT	31	21	10	62
7	5190738507	CHAVAN SWAMINI EKNATH	48	21	13	82
8	5190738508	DAHAT ARPIT RANJEETRAO	55	20	6	81
9	5190738509	DHAYGUDE VISHAL KANTILAL	43	19	13	75
10	5190738510	DHOMSE PURVA PRAVIN	64	22	15	101
11	5190738511	DHUMAL NEHA SUNIL	46	20	13	79
12	5190738512	DIPTI SOPANA DAKE	45	21	12	78
13	5190738513	DOSE YOGITA RAMESH	68	22	21	111
14	5190738514	GADGE GAURI BABAJI	70	21	20	111
15	5190738515	GORADE SAHIL JUABHAU	63	20	13	96
16	5190738516	GUNDU AARYA PRAVIN	44	23	21	88
17	5190738517	HARSH RAJ PATEL	56	22	15	93
18	5190738518	INDORE PRERANA UTTAM	53	21	15	89
19	5190738519	JADHAV CHETAN BAJRANG	40	23	21	84
20	5190738520	JADHAV VYANKATESH BABASAHEB	40	20	7	67
21	5190738521	JAGTAP SAKSHI VINAYAK	48	22	10	80
22	5190738522	JEJURKAR ADITYA BALASAHEB	43	21	20	84
23	5190738523	KALE AKASH RAJENDRA	65	21	12	98
24	5190738524	KALE SANKET SUBHASH	76	21	14	111
25	5190738525	KAMBLE RANJIT DHANPAL	22	20	12	54
26	5190738526	KANDALKAR RUSHIKESH TRAMBAK	43	20	14	77
27	5190738527	KARCHE MAULI HIRAPPA	47	22	15	84
28	5190738528	KEDAR PRAMOD DHONDIBHAU	41	20	11	72
29	5190738529	KHAIRE SHUBHAM NAVNATH	46	21	20	87
30	5190738530	KOKANE PRADEEP SHANKARRAO	69	20	21	110
31	5190738531	KOKANE ROHIT RAJENDRA	33	22	12	67
32	5190738532	KOLHE RITESH SHANTINATH	51	22	20	93
33	5190738533	KORADE MEGHARAJ MARUTI	61	20	15	96
34	5190738534	KULKARNI GANESH KASHINATH	73	23	21	117
35	5190738535	MAGAR RASHI RAJESH	52	21	10	83
36	5190738536	MANE SIDDHANT SURESH	45	20	12	77
37	5190738537	MEHTA MAYUR VISHAL	48	48	48	0
38	5190738538	NALAWADE VIRAJ JAYSING	57	22	21	100
39	5190738539	NIRPHAL ABHIJEET SAYAJI	73	21	12	106
40	5190738540	PABLE GAURAV DIGAMBAR	56	20	14	90
41	5190738541	PAJKEKARI PRATIK DHANAJI	45	19	14	78
42	5190738542	PANDARKAR GAURAV BHAUSAHEB	78	23	20	121
43	5190738543	PANDIT VIRAJ VIKAS	46	22	20	88
44	5190738544	PARSE POURNIMA DILIP	49	21	20	90
45	5190738545	PATEL FARZIN ASFIKIBAL	46	17	10	73
46	5190738546	PATIL ABHIJIT ASHOK	50	20	20	90
47	5190738547	PATIL ATUL SUYOG	52	20	21	93
48	5190738548	PATIL RITESH PRAKASH	49	23	15	87
49	5190738549	PATIL SHRUTIKA SHIRISH	48	22	14	84
50	5190738550	PATIL SWAPNIL DADASAHEB	22	21	14	57
51	5190738551	POKALE SWAPNIL VIJAY	53	20	20	93
52	5190738552	POTE SAURABH SUNIL	50	20	10	80
53	5190738553	PRAJAKTA PRABHAKAR LANDGE	64	23	21	108

54	5190738554	PUSDEKAR LOKESH DNYANESHWAR	48	19	10	77
55	5190738555	ROHAN GANESH LOKHANDE	45	21	20	86
56	5190738556	RUTUJA VIJAY SHITOLE	61	23	16	100
57	5190738557	SAGAR BALASAHEB GONJARE	61	23	20	104
58	5190738558	SAHIL YADAV MOTHER	50	19	12	81
59	5190738559	SAKORE ABHISHEK GANESH	61	20	10	91
60	5190738560	SAKSHI SANTOSH GHANWAT	49	21	19	89
61	5190738561	SALUNKE AJAY GANESH	8	16	10	34
62	5190738562	SALUNKE ROHAN BHARAT	51	19	20	90
63	5190738563	SANKET VIJAY JADHAV	28	20	11	59
64	5190738564	SHAIKH AYAN SHAUQAT	8	17	10	35
65	5190738565	SHAIKH MERAJ ASHFAQUE	47	18	13	78
66	5190738566	SHINDE RAMESHWAR KALIDASRAO	54	20	14	88
67	5190738567	SWAMI SHIVAM SOMANATH	40	20	13	73
68	5190738568	TANGADE PRATHMESH PRAVIN	66	22	20	108
69	5190738569	THOMBARE ANURADHA DADASAHEB	66	22	19	107
70	5190738570	THORVE SANSKRUTI DADASAHEB	56	23	20	99
71	5190738571	TILEKAR VAISHNAVI DATTATRAY	40	22	18	80
72	5190738572	TUSHAR ANIL KOLHE	20	18	10	48
73	5190738573	VARMA ARYAN OMPRAKASH	42	21	14	77
74	5190738574	WAGH KHUSHI SHEKHAR	46	21	13	80
75	5190738575	YADAV PRINCE SURESH	42	19	13	74
76	5190738576	YELAM SANKET VIJAY	47	20	17	84
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						<b>61</b>
<b>TOTAL NO. OF STUDENTS</b>						<b>76</b>
<b>CO ATTAINMENT in %</b>						<b>80.26315789</b>
<b>ATTAINMENT LEVEL</b>						<b>3</b>



Direct Assessment				
CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	71.05	80.26	77.50	3.00
CO2	82.89	80.26	81.05	3.00
CO3	78.95	80.26	79.87	3.00
CO4	78.95	80.26	79.87	3.00
CO5	81.58	80.26	80.66	3.00
CO6	67.11	80.26	76.32	3.00

1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks

2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)

Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	71.05		
2	82.89		
3	78.95		
4	78.95		
5	81.58		
6	67.11		

Table 2: Target vs attainment (SEE)

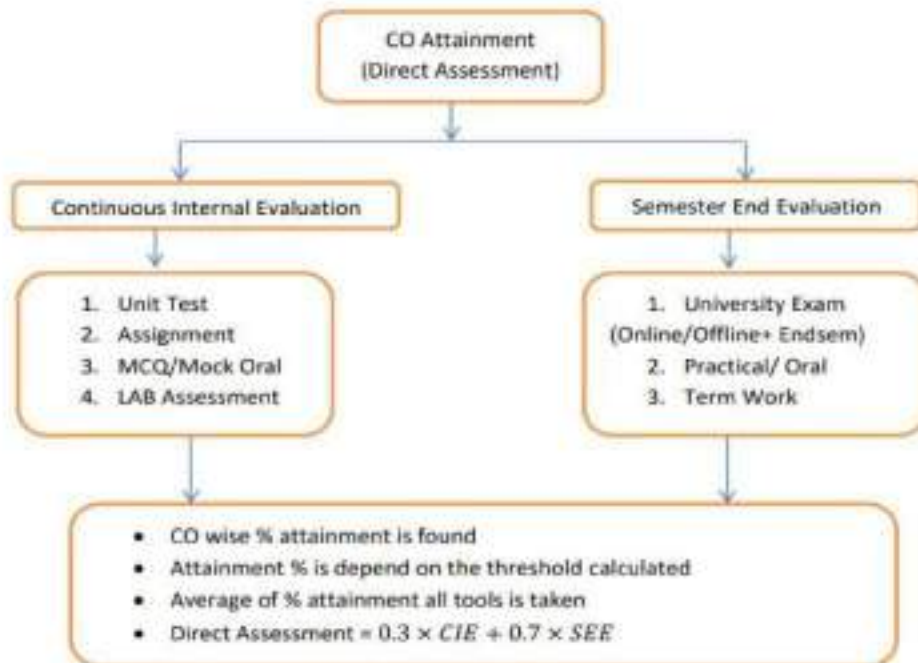
CO	SEE attainment	Gap	Action Planned
1TO6	80.66		



CO-PO MAPPING															
CO	CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02
CO1	C2841	3.00	1.00	2.00	2.00	3.00				2.00				1.00	1.00
CO2	C2842	3.00	3.00	2.00	1.00									1.00	2.00
CO3	C2843	3.00	3.00	2.00	2.00		1.00			2.00				1.00	1.00
CO4	C2844	3.00	1.00	3.00										1.00	2.00
CO5	C2845	3.00	1.00	3.00						3.00				1.00	3.00
CO6	C2846	3.00	1.00	3.00										1.00	1.00
<b>Average</b>		<b>3.00</b>	<b>2.33</b>	<b>2.66</b>	<b>1.87</b>	<b>3.00</b>	<b>1.00</b>			<b>1.33</b>				<b>1.00</b>	<b>2.07</b>

CO	% CO ATTN	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8		PO9		PO10		PO11		PO12		PS01		PS02		
		Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	
CO1	77.56	3.00	2.33	1.00	0.78	3.00	1.55					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.78	1.00	0.78
CO2	81.85	3.00	2.43	1.00	1.62							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.81	1.00	1.02
CO3	79.37	3.00	2.41	1.00	1.60							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.80	1.00	0.80
CO4	79.37	3.00	2.40	1.00	0.80							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.80	1.00	1.00
CO5	89.66	3.00	2.42	1.00	0.81	3.00	1.83	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.81	1.00	2.42
CO6	76.32	3.00	2.20	1.00	0.76							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.76	1.00	0.76
<b>Average</b>		<b>3.00</b>	<b>2.38</b>	<b>1.32</b>	<b>1.06</b>	<b>2.00</b>	<b>1.28</b>	<b>0.00</b>	<b>0.00</b>			<b>0.17</b>	<b>0.12</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.00</b>	<b>0.79</b>	<b>1.07</b>	<b>1.32</b>

ATTAINED POPS0 VALUES															
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02		
2.58	1.08	1.59	0.80	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.79	1.32		



Subject: Basic of Computer Network

CO	COID	DESCRIPTION
CO1	CO1.1	Understand and explain the structure of communication theory and compare functions of OSI and TCP/IP model.
CO1	CO1.2	Understand the LAN, WAN, and cloud, also describe the connection, data flow, and cycle time, timing and flow control protocols.
CO2	CO2.1	Compare different access techniques, channel access and IPSC systems.
CO2	CO2.2	Apply the skills of analyzing, representing and naming mechanisms.
CO3	CO3.1	Understand IP and DNS.
CO4	CO4.1	Describe various and protocols and a transport layer.

CO PO MAPPING													
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13
CO1	1.00	1.00	1.00	1.00	1.00							1.00	1.00
CO2	1.00	1.00	1.00	1.00	1.00	1.00	1.00					1.00	1.00
CO3	1.00	1.00	1.00	1.00	1.00	1.00	1.00					1.00	1.00
CO4	1.00	1.00	1.00	1.00	1.00	1.00	1.00					1.00	1.00
Average	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Assessment Tool and Matrix

Internal Tools (CIE)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	20	20	20	20	20	20
Unit Test	20	20	20	20	20	20

External Tools (SEE)	CO1	CO2	CO3	CO4	CO5	CO6
OSWAJ	20	20	20	20	20	20
ENRGAJ	20	20	20	20	20	20
ORCA / PRACTICAL	20	20	20	20	20	20
TECHNICAL	20	20	20	20	20	20

ATTAINMENT LEVELS

LEVEL 3: More than 75% Students meeting Threshold Marks (75% to 81.25%)

LEVEL 4: 50% to 74% Students meeting Threshold Marks (50% to 74.75%)









**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Basic of Computer Network**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	ORAL / PRACTICAL	TERM WORK	CO1 TO CO6
			100	0	0	100
			100	0	0	100
1	S190738501	ARCHANA DATTA AMBHURE	43	0	0	43
2	S190738502	AWATADE HARSHVARDHAN PRAMOD	16	0	0	16
3	S190738503	BAHALE CHETANA VASANT	52	0	0	52
4	S190738504	BHANGALE DIGAMBAR MANOJ	43	0	0	43
5	S190738505	CHAVAN ANUJA SUKHDEV	76	0	0	76
6	S190738506	CHAVAN PAYAL BHARAT	21	0	0	21
7	S190738507	CHAVAN SWAMINI EKNATH	45	0	0	45
8	S190738508	DAHAT ARPIT RANJEETRAO	42	0	0	42
9	S190738509	DHAYGUDE VISHAL KANTILAL	42	0	0	42
10	S190738510	DHOMSE PURVA PRAVIN	62	0	0	62
11	S190738511	DHUMAL NEHA SUNIL	40	0	0	40
12	S190738512	DIPTI SOPANA DAKE	40	0	0	40
13	S190738513	DOSE YOGITA RAMESH	67	0	0	67
14	S190738514	GADGE GAURI BABAJI	74	0	0	74
15	S190738515	GORADE SAHIL JIJABHAU	52	0	0	52
16	S190738516	GUNDU AARYA PRAVIN	42	0	0	42
17	S190738517	HARSH RAJ PATEL	51	0	0	51
18	S190738518	INDORE PRERANA UTTAM	40	0	0	40
19	S190738519	JADHAV CHETAN BAJRANG	42	0	0	42
20	S190738520	JADHAV VYANKATESH BABASAHEB	46	0	0	46
21	S190738521	JAGTAP SAKSHI VINAYAK	48	0	0	48
22	S190738522	JEJURKAR ADITYA BALASAHEB	52	0	0	52
23	S190738523	KALE AKASH RAJENDRA	73	0	0	73
24	S190738524	KALE SANKET SUBHASH	69	0	0	69
25	S190738525	KAMBLE RANJIT DHANPAL	13	0	0	13
26	S190738526	KANDALKAR RUSHIKESH TRAMBAK	32	0	0	32
27	S190738527	KARCHE MAULI HIRAPPA	50	0	0	50
28	S190738528	KEDAR PRAMOD DHONDIIBHAU	30	0	0	30
29	S190738529	KHAIRE SHUBHAM NAVNATH	28	0	0	28
30	S190738530	KOKANE PRADEEP SHANKARRAO	44	0	0	44
31	S190738531	KOKANE ROHIT RAJENDRA	14	0	0	14
32	S190738532	KOLHE RITESH SHANTINATH	39	0	0	39
33	S190738533	KORADE MEGHARAJ MARUTI	50	0	0	50
34	S190738534	KULKARNI GANESH KASHINATH	74	0	0	74
35	S190738535	MAGAR RASHI RAJESH	49	0	0	49
36	S190738536	MANE SIDDHANT SURESH	25	0	0	25
37	S190738537	MEHTA MAYUR VISHAL	AB	0	0	AB
38	S190738538	NALAWADE VIRAJ JAYSING	51	0	0	51
39	S190738539	NIRPHAL ABHIJEET SAYAJI	60	0	0	60
40	S190738540	PABLE GAURAV DIGAMBAR	48	0	0	48
41	S190738541	PAIKEKARI PRATIK DHANAJI	24	0	0	24
42	S190738542	PANDARKAR GAURAV BHAUSAHEB	65	0	0	65
43	S190738543	PANDIT VIRAJ VIKAS	55	0	0	55
44	S190738544	PARSE POURNIMA DILIP	73	0	0	73
45	S190738545	PATEL FARZIN ASIFIKBAL	43	0	0	43
46	S190738546	PATIL ABHIJIT ASHOK	44	0	0	44

47	S190738547	PATIL ATUL SUYOG	8	0	0	8
48	S190738548	PATIL RITESH PRAKASH	45	0	0	45
49	S190738549	PATIL SHRUTIKA SHIRISH	39	0	0	39
50	S190738550	PATIL SWAPNIL DADASAHEB	30	0	0	30
51	S190738551	POKALE SWAPNIL VIJAY	78	0	0	78
52	S190738552	POTE SAURABH SUNIL	43	0	0	43
53	S190738553	PRAJAKTA PRABHAKAR LANDGE	65	0	0	65
54	S190738554	PUSDEKAR LOKESH DNYANESHWAR	42	0	0	42
55	S190738555	ROHAN GANESH LOKHANDE	50	0	0	50
56	S190738556	RUTUJA VIJAY SHITOLE	74	0	0	74
57	S190738557	SAGAR BALASAHEB GONJARE	66	0	0	66
58	S190738558	SAHIL YADAV MOTHER	47	0	0	47
59	S190738559	SAKORE ABHISHEK GANESH	43	0	0	43
60	S190738560	SAKSHI SANTOSH GHANWAT	62	0	0	62
61	S190738561	SALUNKE AJAY GANESH	10	0	0	10
62	S190738562	SALUNKE ROHAN BHARAT	30	0	0	30
63	S190738563	SANKET VIJAY JADHAV	15	0	0	15
64	S190738564	SHAIKH AYAN SHAUQAT	23	0	0	23
65	S190738565	SHAIKH MERAJ ASHFAQE	42	0	0	42
66	S190738566	SHINDE RAMESHWAR KALIDASRAO	41	0	0	41
67	S190738567	SWAMI SHIVAM SOMANATH	31	0	0	31
68	S190738568	TANGADE PRATHMESH PRAVIN	57	0	0	57
69	S190738569	THOMBARE ANURADHA DADASAHEB	60	0	0	60
70	S190738570	THORVE SANSKRUTI DADASAHEB	52	0	0	52
71	S190738571	TILEKAR VAISHNAVI DATTATRAY	47	0	0	47
72	S190738572	TUSHAR ANIL KOLHE	24	0	0	24
73	S190738573	VARMA ARYAN OMPRAKASH	50	0	0	50
74	S190738574	WAGH KHUSHI SHEKHAR	47	0	0	47
75	S190738575	YADAV PRINCE SURESH	30	0	0	30
76	S190738576	YELAM SANKET VIJAY	40	0	0	40
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						<b>37</b>
<b>TOTAL NO. OF STUDENTS</b>						<b>76</b>
<b>CO ATTAINMENT in %</b>						<b>48.68421053</b>
<b>ATTAINMENT LEVEL</b>						<b>1</b>



Direct Assessment				
CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	100.00	48.68	64.08	2.00
CO2	98.68	48.68	63.68	2.00
CO3	100.00	48.68	64.08	2.00
CO4	98.68	48.68	63.68	2.00
CO5	100.00	48.68	64.08	2.00
CO6	100.00	48.68	64.08	2.00

1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks

2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)

Table1: Target vs attainment (CIE)

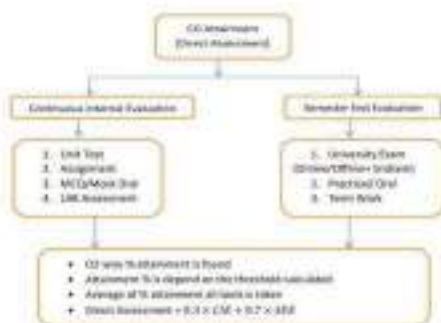
CO	CIE attainment	Gap	Action Planned
1	100.00		
2	98.68		
3	100.00		
4	98.68		
5	100.00		
6	100.00		

Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	64.08		







Subject: Process Architecture

CO	CO-008	CO-008 Detail
CO1	Appointed architecture and capacity optimization of TC, TP and controller	
CO2	Implement individual C programming for TP, TP	
CO3	Use concepts of buses and controllers for TP, TP	
CO4	Implement I/O for applications using TP, TP	
CO5	Execute performance check of AEM process	

CO PO MAPPING														
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1	1.00		1.00		1.00									
CO2	1.00	1.00	1.00	1.00	1.00				1.00			1.00	1.00	1.00
CO3	1.00	1.00	1.00	1.00	1.00				1.00			1.00	1.00	1.00
CO4	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CO5	1.00	1.00	1.00	1.00	1.00				1.00			1.00	1.00	1.00
Average	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Assessment Tool and Marks

Assessment Tool (CTE)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	20	20	20	20	20	20
Lab Test	20	20	20	20	20	20

Assessment Tool (CIE)	CO1	CO2	CO3	CO4	CO5	CO6
INSEM	20	20	20	20	20	20
EXSEM	20	20	20	20	20	20
EMER	20	20	20	20	20	20
TERMINAL	20	20	20	20	20	20

ATTAINMENT LEVEL

LEVEL 1	More than 75% Students scoring. Threshold Marks (75%-81.1-100%)
LEVEL 2	More than 50% Students scoring. Threshold Marks (50%-75.1-75%)
LEVEL 3	Less than 50% Students scoring. Threshold Marks (25%-50.1-50%)





**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Processor Architecture**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	TERM WORK	ORAL / PRACTICAL	CO1 TO CO6
			100	25	25	150
			100	10	10	100
1	S190738501	ARCHANA DATTA AMBHURE	58	21	18	97
2	S190738502	AWATADE HARSHVARDHAN PRAMOD	32	18	12	62
3	S190738503	BAHALE CHETANA VASANT	72	23	22	117
4	S190738504	BHANGALE DIGAMBAR MANOJ	43	18	10	71
5	S190738505	CHAVAN ANUJA SUKHDEV	83	24	23	130
6	S190738506	CHAVAN PAYAL BHARAT	35	21	12	68
7	S190738507	CHAVAN SWAMINI EKNATH	65	20	18	103
8	S190738508	DAHAT ARPIT RANJEETRAO	30	18	11	59
9	S190738509	DHAYGUDE VISHAL KANTILAL	64	19	17	100
10	S190738510	DHOMSE PURVA PRAVIN	44	18	12	74
11	S190738511	DHUMAL NEHA SUNIL	45	21	12	78
12	S190738512	DIPTI SOPANA DAKE	62	22	21	105
13	S190738513	DOSE YOGITA RAMESH	73	22	23	118
14	S190738514	GADGE GAURI BABAJI	69	22	23	114
15	S190738515	GORADE SAHIL JIJABHAU	62	19	10	91
16	S190738516	GUNDU AARYA PRAVIN	42	16	10	68
17	S190738517	HARSH RAJ PATEL	44	21	18	83
18	S190738518	INDORE PRERANA UTTAM	36	22	17	75
19	S190738519	JADHAV CHETAN BAJRANG	40	22	18	80
20	S190738520	JADHAV VYANKATESH BABASAHEB	42	18	13	73
21	S190738521	JAGTAP SAKSHI VINAYAK	30	20	17	67
22	S190738522	JEJURKAR ADITYA BALASAHEB	54	20	12	86
23	S190738523	KALE AKASH RAJENDRA	54	19	13	86
24	S190738524	KALE SANKET SUBHASH	69	18	20	107
25	S190738525	KAMBLE RANJIT DHANPAL	17	18	14	49
26	S190738526	KANDALKAR RUSHIKESH TRAMBAK	21	17	13	51
27	S190738527	KARCHE MAULI HIRAPPA	48	18	14	80
28	S190738528	KEDAR PRAMOD DHONDIBHAU	12	19	15	46
29	S190738529	KHAIRE SHUBHAM NAVNATH	31	20	14	65
30	S190738530	KOKANE PRADEEP SHANKARRAO	34	19	13	66
31	S190738531	KOKANE ROHIT RAJENDRA	21	20	14	55
32	S190738532	KOLHE RITESH SHANTINATH	49	21	18	88
33	S190738533	KORADE MEGHARAJ MARUTI	30	18	13	61
34	S190738534	KULKARNI GANESH KASHINATH	80	24	19	123
35	S190738535	MAGAR RASHI RAJESH	44	22	17	83
36	S190738536	MANE SIDHANT SURESH	19	19	15	53
37	S190738537	MEHTA MAYUR VISHAL	57	19	18	94
38	S190738538	NALAWADE VIRAJ JAYSING	65	18	14	97
39	S190738539	NIRPHAL ABHIJEET SAYAJI	50	17	17	84
40	S190738540	PABLE GAURAV DIGAMBAR	20	15	10	45
41	S190738541	PAIKEKARI PRATIK DHANAJI	73	23	23	119
42	S190738542	PANDARKAR GAURAV BHAUSAHEB	58	21	17	96
43	S190738543	PANDIT VIRAJ VIKAS	40	22	19	81
44	S190738544	PARSE POURNIMA DILIP	40	13	12	65
45	S190738545	PATEL FARZIN ASFIKBAL	40	15	16	71
46	S190738546	PATIL ABHIJIT ASHOK	41	16	24	81
47	S190738547	PATIL ATUL SUYOG	41	18	11	70
48	S190738548	PATIL RITESH PRAKASH	41	21	14	76
49	S190738549	PATIL SHRUTIKA SHIRISH	45	19	10	74
50	S190738550	PATIL SWAPNIL DADASAHEB	64	19	12	95



51	S190738551	POKALE SWAPNIL VIJAY	44	18	15	77
52	S190738552	POTE SAURABH SUNIL	53	21	23	97
53	S190738553	PRAJAKTA PRABHAKAR LANDGE	33	19	12	64
54	S190738554	PUSDEKAR LOKESH DNYANESHWAR	27	18	15	60
55	S190738555	ROHAN GANESH LOKHANDE	70	21	18	109
56	S190738556	RUTUJA VIJAY SHITOLE	60	22	13	95
57	S190738557	SAGAR BALASAHEB GONJARE	40	15	12	67
58	S190738558	SAHIL YADAV MOTHER	36	18	14	68
59	S190738559	SAKORE ABHISHEK GANESH	43	18	17	78
60	S190738560	SAKSHI SANTOSH GHANWAT	31	13	10	54
61	S190738561	SALUNKE AJAY GANESH	41	18	13	72
62	S190738562	SALUNKE ROHAN BHARAT	40	19	12	71
63	S190738563	SANKET VIJAY JADHAV	32	18	12	62
64	S190738564	SHAIKH AYAN SHAUQAT	40	21	14	75
65	S190738565	SHAIKH MERAJ ASHFAQUE	43	22	14	79
66	S190738566	SHINDE RAMESHWAR KALIDASRAO	33	18	13	64
67	S190738567	SWAMI SHIVAM SOMANATH	49	20	15	84
68	S190738568	TANGADE PRATHMESH PRAVIN	61	24	20	105
69	S190738569	THOMBARE ANURADHA DADASAHEB	73	23	15	111
70	S190738570	THORVE SANSKRUTI DADASAHEB	34	22	16	72
71	S190738571	TILEKAR VAISHNAVI DATTATRAY	35	18	10	63
72	S190738572	TUSHAR ANIL KOLHE	55	18	15	88
73	S190738573	VARMA ARYAN OMPRAKASH	28	20	15	63
74	S190738574	WAGH KHUSHI SHEKHAR	42	19	13	74
75	S190738575	YADAV PRINCE SURESH	58	18	22	98
76	S190738576	YELAM SANKET VIJAY	43	0	0	43
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						41
<b>TOTAL NO. OF STUDENTS</b>						76
<b>CO ATTAINMENT in %</b>						53.94736842
<b>ATTAINMENT LEVEL</b>						2

### Direct Assessment

CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	84.21	53.95	63.03	2.00
CO2	90.79	53.95	65.00	2.00
CO3	88.16	53.95	64.21	2.00
CO4	81.58	53.95	62.24	2.00
CO5	86.84	53.95	63.82	2.00
CO6	84.21	53.95	63.03	2.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	84.21		
2	90.79		
3	88.16		
4	81.58		
5	86.84		
6	84.21		

Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	63.82		

CO PO MAPPING															
CO	CO CODE	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	P013	
CD1	42111	1.00		2.00		3.00							2.00	1.00	1.00
CD2	42112	1.00	1.00	1.00	2.00	2.00			1.00				1.00	1.00	1.00
CD3	42113	1.00	2.00	2.00	1.00	1.00							1.00	1.00	1.00
CD4	42114	1.00		1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
CD5	42115	1.00	1.00	1.00	1.00	1.00			1.00				1.00	1.00	1.00
Average		3.00	2.00	2.25	2.00	3.00	3.00	2.00	1.00	1.50	2.00	1.00	2.00	1.00	1.00

CO	SGO	ATTN	P01		P02		P03		P04		P05		P06		P07		P08		P09		P010		P011		P012		P013		P014	
			Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att
CD1	63.63	1.00	1.00	0.00	0.00	1.00	1.25					0.00	0.00			0.00	0.00			0.00	0.00			1.00	1.25	1.00	0.00	1.00	0.00	
CD2	65.00	1.00	1.00	1.00	1.00							0.00	0.00	1.00	0.00	0.00	0.00			0.00	0.00			1.00	1.25	1.00	0.00	1.00	1.00	
CD3	64.31	1.00	1.00	1.00	1.00							0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00			1.00	1.25	1.00	0.00	1.00	0.00	
CD4	62.24	1.00	1.00	0.00	0.00							0.00	0.00							0.00	0.00			1.00	1.25	1.00	0.00	1.00	1.00	
CD5	63.82	1.00	1.00	1.00	1.25	2.00	1.25	1.00	1.00			0.00	0.00							0.00	0.00			1.00	1.25	1.00	0.00	1.00	1.00	
Average		3.00	1.00	1.20	0.75	2.00	1.25	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			2.00	1.25	1.00	0.00	1.00	1.00	

ATTAINED POPSGO VALUES													
P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	P013	P014
1.00	0.77	1.27	1.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	1.27	0.00	1.00



**IPM's Molecular Computation of Technology & Research, Waghal, India**  
**Department of Information Technology**  
**AI-30231**

**Subject: Database Management Systems**

CO	CSO	CS1	CS2	CS3	CS4	CS5
CO-1	CS1	CS2	CS3	CS4	CS5	CS6
CO-2	CS1	CS2	CS3	CS4	CS5	CS6
CO-3	CS1	CS2	CS3	CS4	CS5	CS6
CO-4	CS1	CS2	CS3	CS4	CS5	CS6
CO-5	CS1	CS2	CS3	CS4	CS5	CS6
CO-6	CS1	CS2	CS3	CS4	CS5	CS6

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO-1	1.00													
CO-2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CO-3	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CO-4	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CO-5	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CO-6	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Assessment Tool and Matrix**

General Tools (CIE)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	20	20	20	20	20	20
End Exam	20	20	20	20	20	20

External Tools (SEE)	CO1	CO2	CO3	CO4	CO5	CO6
PROJECT	20	20	20	20	20	20
INDIA M	20	20	20	20	20	20
INDIA / PRACTICAL	20	20	20	20	20	20
TERM WORK	20	20	20	20	20	20

ATTAINMENT LEVELS	
AI-30231	More than 75% Students scoring Threshold Marks (75% <= AI-30231)
AI-30231	80% in 14% Students scoring Threshold Marks (80% <= AI-30231)
AI-30231	Less than 80% Students scoring Threshold Marks (80% <= AI-30231)



## INTERNAL ASSESSMENT RECORD

SUBJECT: Database Management Systems

SE SEM: 8

Sl. No.	Roll No.	Name of Student	Assessment										Lab Test										Project								
			CO1	CO2	CO3	CO4	CO5	CO6	CO7	CO8	CO9	CO10	CO11	CO12	CO13	CO14	CO15	CO16	CO17	CO18	CO19	CO20	CO21	CO22	CO23	CO24	CO25				
1	2020001	ADARSH KOTI LAMPALA	7	8	9	8	8	7	8	11	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
2	2020002	ADARSH NARAYANAN PRASAD	8	7	9	7	8	8	10	9	11	10	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
3	2020003	ADARSH VIVEK MOHIT	8	8	9	8	7	8	9	11	10	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29		
4	2020004	ADARSH VISHWANATHAN	8	7	9	7	8	8	10	11	12	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
5	2020005	ADARSHAN A SURESH	7	8	9	8	7	8	9	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
6	2020006	ADARSHANAN ANAND	8	8	9	7	8	7	11	11	12	9	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
7	2020007	ADARSHANAN LAKSHAN	8	7	9	7	8	8	10	11	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
8	2020008	ADARSH ANANTH SURESH	8	7	9	8	8	7	9	10	11	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
9	2020009	ADARSHAN DEAN ANJANA	8	8	9	8	8	8	9	11	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
10	2020010	ADARSH PAVAN PRASAD	7	8	9	8	7	8	10	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29		
11	2020011	ADARSH SURESH SURESH	8	8	9	8	8	8	11	11	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
12	2020012	ADARSH SURESH SURESH	7	8	9	7	8	8	11	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
13	2020013	ADARSH SURESH SURESH	7	8	9	7	7	7	10	11	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
14	2020014	ADARSH SURESH SURESH	7	8	9	7	7	8	9	10	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
15	2020015	ADARSH SURESH SURESH	8	7	9	8	8	8	10	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
16	2020016	ADARSH SURESH SURESH	8	8	9	8	8	7	9	11	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
17	2020017	ADARSH SURESH SURESH	8	8	9	8	8	7	9	10	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
18	2020018	ADARSH SURESH SURESH	7	8	9	8	8	7	9	10	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
19	2020019	ADARSH SURESH SURESH	8	7	9	8	7	8	11	11	12	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
20	2020020	ADARSH SURESH SURESH	7	8	9	7	8	7	10	11	9	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
21	2020021	ADARSH SURESH SURESH	8	7	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
22	2020022	ADARSH SURESH SURESH	8	7	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
23	2020023	ADARSH SURESH SURESH	7	8	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
24	2020024	ADARSH SURESH SURESH	7	8	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
25	2020025	ADARSH SURESH SURESH	7	8	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
26	2020026	ADARSH SURESH SURESH	7	8	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
27	2020027	ADARSH SURESH SURESH	7	8	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
28	2020028	ADARSH SURESH SURESH	7	8	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
29	2020029	ADARSH SURESH SURESH	7	8	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
30	2020030	ADARSH SURESH SURESH	7	8	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
31	2020031	ADARSH SURESH SURESH	7	8	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
32	2020032	ADARSH SURESH SURESH	7	8	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
33	2020033	ADARSH SURESH SURESH	7	8	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
34	2020034	ADARSH SURESH SURESH	7	8	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
35	2020035	ADARSH SURESH SURESH	7	8	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
36	2020036	ADARSH SURESH SURESH	7	8	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
37	2020037	ADARSH SURESH SURESH	7	8	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
38	2020038	ADARSH SURESH SURESH	7	8	9	8	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31



**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Logic Design and Computer Organization**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	ORAL / PRACTICAL	TERM WORK	CO1 TO CO6
			100	25	25	150
			10	10	10	30
1	5190738501	ARCHANA DATTA AMBHURE	59	22	22	103
2	5190738502	AWATADE HARSHVARDHAN PRAMOD	16	21	18	55
3	5190738503	BAHALE CHETANA VASANT	55	23	22	100
4	5190738504	BHANGALE DIGAMBAR MANOJ	41	20	17	78
5	5190738505	CHAVAN ANUJA SUKHDEV	70	23	22	115
6	5190738506	CHAVAN PAYAL BHARAT	28	21	21	70
7	5190738507	CHAVAN SWAMINI EKNATH	53	22	20	95
8	5190738508	DAHAT ARPIT RANJEETRAO	33	19	18	70
9	5190738509	DHAYGUDE VISHAL KANTILAL	40	20	19	79
10	5190738510	DHOMSE PURVA PRAVIN	43	21	22	86
11	5190738511	DHUMAL NEHA SUNIL	32	19	19	70
12	5190738512	DIPTI SOPANA DAKE	31	20	19	70
13	5190738513	DOSE YOGITA RAMESH	52	22	22	96
14	5190738514	GADGE GAURI BABAJI	61	23	23	107
15	5190738515	GORADE SAHIL JUABHAU	53	20	21	94
16	5190738516	GUNDU AARYA PRAVIN	42	21	20	83
17	5190738517	HARSH RAJ PATEL	55	21	20	96
18	5190738518	INDORE PRERANA UTTAM	41	22	22	85
19	5190738519	JADHAV CHETAN BAJRANG	40	21	20	81
20	5190738520	JADHAV VYANKATESH BABASAHEB	40	20	20	80
21	5190738521	JAGTAP SAKSHI VINAYAK	28	21	21	70
22	5190738522	JEJURKAR ADITYA BALASAHEB	45	21	21	87
23	5190738523	KALE AKASH RAJENDRA	54	20	19	93
24	5190738524	KALE SANKET SUBHASH	63	18	19	100
25	5190738525	KAMBLE RANJIT DHANPAL	3	17	17	37
26	5190738526	KANDALKAR RUSHIKESH TRAMBAK	35	18	19	72
27	5190738527	KARCHE MAULI HIRAPPA	45	20	20	85
28	5190738528	KEDAR PRAMOD DHONDIBHAU	18	17	18	53
29	5190738529	KHAIRE SHUBHAM NAVNATH	19	18	17	54
30	5190738530	KOKANE PRADEEP SHANKARRAO	50	21	21	92
31	5190738531	KOKANE ROHIT RAJENDRA	18	20	20	58
32	5190738532	KOLHE RITESH SHANTINATH	54	20	19	93
33	5190738533	KORADE MEGHARAJ MARUTI	53	18	18	89
34	5190738534	KULKARNI GANESH KASHINATH	67	23	23	113
35	5190738535	MAGAR RASHI RAJESH	50	22	20	92
36	5190738536	MANE SIDDHANT SURESH	31	20	20	71
37	5190738537	MEHTA MAYUR VISHAL	53	23	23	99
38	5190738538	NALAWADE VIRAJ JAYSING	54	21	19	94
39	5190738539	NIRPHAL ABHIJEET SAYAJI	42	22	21	85
40	5190738540	PABLE GAURAV DIGAMBAR	17	17	16	50
41	5190738541	PAJKEKARI PRATIK DHANAJI	71	23	23	117
42	5190738542	PANDARKAR GAURAV BHAUSAHEB	49	22	22	93
43	5190738543	PANDIT VIRAJ VIKAS	56	19	19	94
44	5190738544	PARSE POURNIMA DILIP	44	18	17	79
45	5190738545	PATEL FARZIN ASFIKBAL	50	20	18	88
46	5190738546	PATIL ABHIJIT ASHOK	45	22	22	89
47	5190738547	PATIL ATUL SUYOG	48	21	22	91
48	5190738548	PATIL RITESH PRAKASH	42	21	21	84
49	5190738549	PATIL SHRUTIKA SHIRISH	16	18	17	51
50	5190738550	PATIL SWAPNIL DADASAHEB	63	20	19	102
51	5190738551	POKALE SWAPNIL VIJAY	43	19	18	80
52	5190738552	POTE SAURABH SUNIL	47	23	23	93
53	5190738553	PRAJAKTA PRABHAKAR LANDGE	27	16	17	60

54	5190738554	PUSDEKAR LOKESH DNYANESHWAR	40	17	18	75
55	5190738555	ROHAN GANESH LOKHANDE	75	23	22	120
56	5190738556	RUTUJA VIJAY SHITOLE	73	23	23	119
57	5190738557	SAGAR BALASAHEB GONJARE	61	21	21	103
58	5190738558	SAHIL YADAV MOTHER	21	21	21	63
59	5190738559	SAKORE ABHISHEK GANESH	52	20	20	92
60	5190738560	SAKSHI SANTOSH GHANWAT	48	16	10	26
61	5190738561	SALUNKE AJAY GANESH	48	20	18	86
62	5190738562	SALUNKE ROHAN BHARAT	30	19	18	67
63	5190738563	SANKET VIJAY JADHAV	13	17	17	47
64	5190738564	SHAIKH AYAN SHAUQAT	38	17	18	73
65	5190738565	SHAIKH MERAJ ASHFAQUE	52	18	18	88
66	5190738566	SHINDE RAMESHWAR KALIDASRAO	32	20	19	71
67	5190738567	SWAMI SHIVAM SOMANATH	66	21	21	108
68	5190738568	TANGADE PRATHMESH PRAVIN	64	22	21	107
69	5190738569	THOMBARE ANURADHA DADASAHEB	63	23	22	108
70	5190738570	THORVE SANSKRUTI DADASAHEB	48	22	21	91
71	5190738571	TILEKAR VAISHNAVI DATTATRAY	28	19	16	63
72	5190738572	TUSHAR ANIL KOLHE	64	21	21	106
73	5190738573	VARMA ARYAN OMPRAKASH	30	21	20	71
74	5190738574	WAGH KHUSHI SHEKHAR	40	20	20	80
75	5190738575	YADAV PRINCE SURESH	55	21	19	95
76	5190738576	YELAM SANKET VIJAY	46	21	20	87
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						<b>52</b>
<b>TOTAL NO. OF STUDENTS</b>						<b>76</b>
<b>CO ATTAINMENT in %</b>						<b>68.42105263</b>
<b>ATTAINMENT LEVEL</b>						<b>2</b>



Direct Assessment				
CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	63.16	68.42	66.84	2.00
CO2	85.53	68.42	73.55	2.00
CO3	82.89	68.42	72.76	2.00
CO4	76.32	68.42	70.79	2.00
CO5	80.26	68.42	71.97	2.00
CO6	75.00	68.42	70.39	2.00

1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks

2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)

Table1: Target vs attainment (CIE)

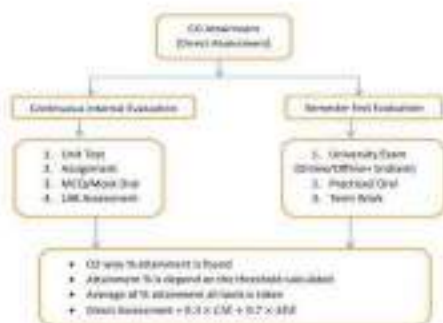
CO	CIE attainment	Gap	Action Planned
1	63.16		
2	85.53		
3	82.89		
4	76.32		
5	80.26		
6	75.00		

Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	71.97		







**Subject: Computer Graphics**

CO	CO1	CO2	CO3	CO4	CO5
CO1	Apply mathematical and logical aspects for developing elementary graphics operations like scan conversion of points, lines, circles, and apply it for problem solving.				
CO2	Apply techniques of geometrical transformations to profiles, surfaces and assign appropriate 2D, 3D and 4D coordinates and transformations respectively.				
CO3	Describe mapping from a 3D coordinate to 2D coordinate, clipping and projection in order to produce 2D image on 2D output device.				
CO4	Apply concepts of rendering, shading, animation, curves and Bezier using computer graphics tools including development and testing of 2D, 3D rendering applications.				
CO5	Describe the concepts of virtual reality.				

C/O	C/O TO MAPPING											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C/O1	1.00		1.00		1.00					1.00	1.00	1.00
C/O2	1.00	1.00	1.00	1.00	1.00					1.00	1.00	1.00
C/O3	1.00		1.00	1.00	1.00					1.00	1.00	1.00
C/O4	1.00	1.00	1.00		1.00					1.00	1.00	1.00
C/O5	1.00	1.00	1.00	1.00	1.00					1.00	1.00	1.00
<b>Average</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>					<b>1.00</b>	<b>1.00</b>	<b>1.00</b>

**Assessment Tool and Marks**

Assess Tool (ITE)	CO1	CO2	CO3	CO4	CO5	C/O6
Assignment	10	10	10	10	10	10
Lab Test	10	10	10	10	10	10

Assess Tool (ATE)	CO1	CO2	CO3	CO4	CO5	C/O6
INSEM	10	10	10	10	10	10
ENSEM	10	10	10	10	10	10
ORAL	10	10	10	10	10	10
PRACTICAL	10	10	10	10	10	10
TERM WORK	10	10	10	10	10	10

ATTAINMENT LEVEL	
LEVEL 1	More than 75% Students scoring Threshold Marks (75%-AL1-100%)
LEVEL 2	90% to 75% Students scoring Threshold Marks (90%-AL2-75%)
LEVEL 3	Less than 90% Students scoring Threshold Marks (90%-AL3-90%)

## INTERNAL ASSESSMENT RECORD

SUBJECT: Computer Graphics

Class: SE SEM: II

Sl. No.	Roll No.	Name of Student	Assignment										End Test					TOTAL				
			100		101		102		103		104		100		101		102		103		104	
			00	05	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
1	1001001	ABHIRAM DUTTA SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	1001002	AJAY KUMAR SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	1001003	ANSHU CHETANI SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	1001004	ANJALI SHARMA SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	1001005	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	1001006	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	1001007	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	1001008	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	1001009	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	1001010	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	1001011	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	1001012	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	1001013	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	1001014	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	1001015	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	1001016	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	1001017	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	1001018	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	1001019	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	1001020	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	1001021	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	1001022	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	1001023	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	1001024	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	1001025	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	1001026	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	1001027	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	1001028	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	1001029	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	1001030	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	1001031	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	1001032	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	1001033	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	1001034	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	1001035	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	1001036	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	1001037	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	1001038	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	1001039	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	1001040	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	1001041	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	1001042	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	1001043	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	1001044	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	1001045	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	1001046	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	1001047	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	1001048	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	1001049	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	1001050	CHANDAN SHARMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0





**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Computer Graphics**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	TERM WORK	ORAL / PRACTICAL	CO1 TO CO6
			100	25	25	150
			100	10	10	100
1	S190738501	ARCHANA DATTA AMBHURE	58	21	18	97
2	S190738502	AWATADE HARSHVARDHAN PRAMOD	32	18	12	62
3	S190738503	BAHALE CHETANA VASANT	72	23	22	117
4	S190738504	BHANGALE DIGAMBAR MANOJ	43	18	10	71
5	S190738505	CHAVAN ANUJA SUKHDEV	83	24	23	130
6	S190738506	CHAVAN PAYAL BHARAT	35	21	12	68
7	S190738507	CHAVAN SWAMINI EKNATH	65	20	18	103
8	S190738508	DAHAT ARPIT RANJEETRAO	30	18	11	59
9	S190738509	DHAYGUDE VISHAL KANTILAL	64	19	17	100
10	S190738510	DHOMSE PURVA PRAVIN	44	18	12	74
11	S190738511	DHUMAL NEHA SUNIL	45	21	12	78
12	S190738512	DIPTI SOPANA DAKE	62	22	21	105
13	S190738513	DOSE YOGITA RAMESH	73	22	23	118
14	S190738514	GADGE GAURI BABAJI	69	22	23	114
15	S190738515	GORADE SAHIL JUABHAU	62	19	10	91
16	S190738516	GUNDU AARYA PRAVIN	42	16	10	68
17	S190738517	HARSH RAJ PATEL	44	21	18	83
18	S190738518	INDORE PRERANA UTTAM	36	22	17	75
19	S190738519	JADHAV CHETAN BAJRANG	40	22	18	80
20	S190738520	JADHAV VYANKATESH BABASAHEB	42	18	13	73
21	S190738521	JAGTAP SAKSHI VINAYAK	30	20	17	67
22	S190738522	JEJURKAR ADITYA BALASAHEB	54	20	12	86
23	S190738523	KALE AKASH RAJENDRA	54	19	13	86
24	S190738524	KALE SANKET SUBHASH	69	18	20	107
25	S190738525	KAMBLE RANJIT DHANPAL	17	18	14	49
26	S190738526	KANDALKAR RUSHIKESH TRAMBAK	21	17	13	51
27	S190738527	KARCHE MAULI HIRAPPA	48	18	14	80
28	S190738528	KEDAR PRAMOD DHONDIBHAU	12	19	15	46
29	S190738529	KHAIRE SHUBHAM NAVNATH	31	20	14	65
30	S190738530	KOKANE PRADEEP SHANKARRAO	34	19	13	66
31	S190738531	KOKANE ROHIT RAJENDRA	21	20	14	55
32	S190738532	KOLHE RITESH SHANTINATH	49	21	18	88
33	S190738533	KORADE MEGHARAJ MARUTI	30	18	13	61
34	S190738534	KULKARNI GANESH KASHINATH	80	24	19	123
35	S190738535	MAGAR RASHI RAJESH	44	22	17	83
36	S190738536	MANE SIDDHANT SURESH	19	19	15	53
37	S190738537	MEHTA MAYUR VISHAL	57	19	18	94
38	S190738538	NALAWADE VIRAJ JAYSING	65	18	14	97
39	S190738539	NIRPHAL ABHIJEET SAYAJI	50	17	17	84
40	S190738540	PABLE GAURAV DIGAMBAR	20	15	10	45
41	S190738541	PAJKEKARI PRATIK DHANAJI	73	23	23	119
42	S190738542	PANDARKAR GAURAV BHAUSAHEB	58	21	17	96
43	S190738543	PANDIT VIRAJ VIKAS	40	22	19	81
44	S190738544	PARSE POURNIMA DILIP	40	13	12	65
45	S190738545	PATEL FARZIN ASIFIKBAL	40	15	16	71
46	S190738546	PATIL ABHIJIT ASHOK	41	16	24	81
47	S190738547	PATIL ATUL SUYOG	41	18	11	70
48	S190738548	PATIL RITESH PRAKASH	41	21	14	76
49	S190738549	PATIL SHRUTIKA SHIRISH	45	19	10	74
50	S190738550	PATIL SWAPNIL DADASAHEB	64	19	12	95
51	S190738551	POKALE SWAPNIL VIJAY	44	18	15	77

52	S190738552	POTE SAURABH SUNIL	53	21	23	97
53	S190738553	PRAJAKTA PRABHAKAR LANDGE	33	19	12	64
54	S190738554	PUSDEKAR LOKESH DNYANESHWAR	27	18	15	60
55	S190738555	ROHAN GANESH LOKHANDE	70	21	18	109
56	S190738556	RUTUJA VIJAY SHITOLE	60	22	13	95
57	S190738557	SAGAR BALASAHEB GONJARE	40	15	12	67
58	S190738558	SAHIL YADAV MOTHER	36	18	14	68
59	S190738559	SAKORE ABHISHEK GANESH	43	18	17	78
60	S190738560	SAKSHI SANTOSH GHANWAT	31	13	10	54
61	S190738561	SALUNKE AJAY GANESH	41	18	13	72
62	S190738562	SALUNKE ROHAN BHARAT	40	19	12	71
63	S190738563	SANKET VIJAY JADHAV	32	18	12	62
64	S190738564	SHAIKH AYAN SHAUQAT	40	21	14	75
65	S190738565	SHAIKH MERAJ ASHFAQUE	43	22	14	79
66	S190738566	SHINDE RAMESHWAR KALIDASRAO	33	18	13	64
67	S190738567	SWAMI SHIVAM SOMANATH	49	20	15	84
68	S190738568	TANGADE PRATHMESH PRAVIN	61	24	20	105
69	S190738569	THOMBARE ANURADHA DADASAHEB	73	23	15	111
70	S190738570	THORVE SANSKRUTI DADASAHEB	34	22	16	72
71	S190738571	TILEKAR VAISHNAVI DATTATRAY	35	18	10	63
72	S190738572	TUSHAR ANIL KOLHE	55	18	15	88
73	S190738573	VARMA ARYAN OMPRAKASH	28	20	15	63
74	S190738574	WAGH KHUSHI SHEKHAR	42	19	13	74
75	S190738575	YADAV PRINCE SURESH	58	18	22	98
76	S190738576	YELAM SANKET VIJAY	43	0	0	43
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						41
<b>TOTAL NO. OF STUDENTS</b>						76
<b>CO ATTAINMENT in %</b>						53.94736842
<b>ATTAINMENT LEVEL</b>						2

### Direct Assessment

CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	65.79	53.95	57.50	2.00
CO2	85.53	53.95	63.42	2.00
CO3	73.68	53.95	59.87	2.00
CO4	43.42	53.95	50.79	2.00
CO5	50.00	53.95	52.76	2.00
CO6	43.42	53.95	50.79	2.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	65.79		
2	85.53		
3	73.68		
4	43.42		
5	50.00		
6	43.42		

Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	52.76		



CO PO MAPPING															
CO	CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CD1	42113	1.00		2.00		3.00							2.00	1.00	1.00
CD2	42112	1.00	1.00	1.00	2.00	2.00							1.00	1.00	1.00
CD3	42113	1.00		2.00	2.00	3.00							1.00	1.00	1.00
CD4	42114	1.00	1.00	1.00		3.00							1.00	1.00	1.00
CD5	42113	1.00	1.00	1.00	2.00	2.00							1.00	1.00	1.00
Average		3.00	2.00	2.25	2.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00

CO	SGO ATTN	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8		PO9		PO10		PO11		PO12		PO13		PO14	
		Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att
CD1	57.56	1.00	1.71	0.00	0.00	1.00	1.15					0.00	0.00			0.00	0.00			0.00	0.00			1.00	1.15	1.00	0.55	1.00	0.50
CD2	61.42	1.00	1.00	1.00	1.27							0.00	0.00	1.00	0.18	0.00	0.00			0.00	0.00			1.00	1.27	1.00	0.63	1.00	1.27
CD3	59.87	1.00	1.00	0.00	0.00							0.00	0.00	0.00	0.18					0.00	0.00			1.00	1.20	1.00	0.08	1.00	0.00
CD4	58.79	1.00	1.71	1.00	1.87							0.00	0.00							0.00	0.00			1.00	1.87	1.00	0.51	1.00	1.87
CD5	52.76	1.00	1.58	1.00	1.86	2.00	1.78	1.00	1.86			0.00	0.00			0.00	0.00			0.00	0.00			1.00	1.86	1.00	0.53	1.00	1.86
Average		1.00	1.71	1.20	0.67	2.00	1.10	2.00	1.86			0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00			2.00	1.14	1.00	0.57	1.00	1.81

ATTAINED POPPO VALUES														
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	PO15
1.71	0.67	1.20	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.14	0.57	1.81	





Subject: Software Engineering

CO CODE	CO STATEMENT
CO1	Classify various software application domains.
CO2	Analyze software requirements by using various modeling techniques.
CO3	Translate the requirement models into design models.
CO4	Apply planning and estimation to any project.
CO5	Use quality attributes and testing principles in software development life cycle.
CO6	Discuss recent trends in Software engineering by using CASE and agile tools.

CO PO MAPPING														
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3.00	1.00	2.00									2.00		
CO2	1.00	2.00	2.00	2.00				3.00						
CO3	3.00	2.00	2.00					3.00	5.00		2.00			
CO4	3.00	1.00	2.00	1.00				2.00						
CO5	3.00	1.00	2.00						5.00		3.00			
CO6	3.00	1.00	2.00	1.00							1.00			
<b>Average</b>	<b>2.87</b>	<b>1.50</b>	<b>2.00</b>	<b>1.33</b>					<b>2.00</b>	<b>5.00</b>		<b>2.25</b>		

**Assessment Tool and Matrix**

Internal Tools (CBE)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	10	10	10	10	10	10
Unit Test	10	10	10	10	10	10

External Tools (SEE)	CO1	CO2	CO3	CO4	CO5	CO6
INSEM	10	10	10	10	10	10
ENDESEM	10	10	10	10	10	10
ORAL / PRACTICAL	25	25	15	25	25	15
TERM WORK	25	25	15	25	25	15

ATTAINMENT LEVELS	
LEVEL 3:	More than 75% Students scoring Threshold Marks (75% <AL<100%)
LEVEL 2:	50% to 74% Students scoring Threshold Marks (50% <AL<75%)
LEVEL 1:	less than 50% Students scoring Threshold Marks (0% <AL<50%)

## INTERNAL ASSESSMENT RECORD

SUBJECT: Software Engineering

CLASS: SE SEM: 8

Sl. No.	Roll No.	Name of Student	Assignment										Lab. Exp.					Sign Bank Practice Exam					T10 Jm.					
			Q01		Q02		Q03		Q04		Q05		Q06		Q07		Q08		Q09		Q10		Q11		Q12		Q13	
			01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1	20210001	MISHRA DEEPTI ANSHU	7	6	7	8	9	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	
2	20210002	ANANDI KUNWARANAND PRANAV	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
3	20210003	ANJALI DIXITKA VIKAS	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
4	20210004	ANURAG KUMAR ANAND KUNDE	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
5	20210005	ANURAG KUNDE ANAND	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
6	20210006	ANURAG KUNDE ANAND	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
7	20210007	ANURAG KUNDE ANAND	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
8	20210008	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
9	20210009	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
10	20210010	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
11	20210011	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
12	20210012	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
13	20210013	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
14	20210014	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
15	20210015	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
16	20210016	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
17	20210017	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
18	20210018	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
19	20210019	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
20	20210020	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
21	20210021	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
22	20210022	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
23	20210023	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
24	20210024	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
25	20210025	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
26	20210026	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
27	20210027	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
28	20210028	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
29	20210029	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
30	20210030	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
31	20210031	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
32	20210032	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
33	20210033	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
34	20210034	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
35	20210035	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
36	20210036	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
37	20210037	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
38	20210038	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
39	20210039	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
40	20210040	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
41	20210041	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
42	20210042	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
43	20210043	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
44	20210044	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
45	20210045	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
46	20210046	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
47	20210047	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
48	20210048	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
49	20210049	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
50	20210050	ANURAG KUNDE ANAND	8	8	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	



**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Processor Architecture**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	ORAL / PRACTICAL	TERM WORK	CO1 TO CO6
			100	0	0	100
			100	0	0	100
1	S190738501	ARCHANA DATTA AMBHURE	41	0	0	41
2	S190738502	AWATADE HARSHVARDHAN PRAMOD	40	0	0	40
3	S190738503	BAHALE CHETANA VASANT	76	0	0	76
4	S190738504	BHANGALE DIGAMBAR MANOJ	51	0	0	51
5	S190738505	CHAVAN ANUJA SUKHDEV	72	0	0	72
6	S190738506	CHAVAN PAYAL BHARAT	40	0	0	40
7	S190738507	CHAVAN SWAMINI EKNATH	58	0	0	58
8	S190738508	DAHAT ARPIT RANJEETRAO	8	0	0	8
9	S190738509	DHAYGUDE VISHAL KANTILAL	48	0	0	48
10	S190738510	DHOMSE PURVA PRAVIN	55	0	0	55
11	S190738511	DHUMAL NEHA SUNIL	42	0	0	42
12	S190738512	DIPTI SOPANA DAKE	53	0	0	53
13	S190738513	DOSE YOGITA RAMESH	74	0	0	74
14	S190738514	GADGE GAURI BABAJI	66	0	0	66
15	S190738515	GORADE SAHIL JIJABHAU	54	0	0	54
16	S190738516	GUNDU AARYA PRAVIN	46	0	0	46
17	S190738517	HARSH RAJ PATEL	65	0	0	65
18	S190738518	INDORE PRERANA UTTAM	55	0	0	55
19	S190738519	JADHAV CHETAN BAJRANG	40	0	0	40
20	S190738520	JADHAV VYANKATESH BABASAHEB	35	0	0	35
21	S190738521	JAGTAP SAKSHI VINAYAK	43	0	0	43
22	S190738522	JEJURKAR ADITYA BALASAHEB	48	0	0	48
23	S190738523	KALE AKASH RAJENDRA	52	0	0	52
24	S190738524	KALE SANKET SUBHASH	68	0	0	68
25	S190738525	KAMBLE RANJIT DHANPAL	43	0	0	43
26	S190738526	KANDALKAR RUSHIKESH TRAMBAK	41	0	0	41
27	S190738527	KARCHE MAULI HIRAPPA	53	0	0	53
28	S190738528	KEDAR PRAMOD DHONDIIBHAU	45	0	0	45
29	S190738529	KHAIRE SHUBHAM NAVNATH	49	0	0	49
30	S190738530	KOKANE PRADEEP SHANKARRAO	53	0	0	53
31	S190738531	KOKANE ROHIT RAJENDRA	40	0	0	40
32	S190738532	KOLHE RITESH SHANTINATH	67	0	0	67
33	S190738533	KORADE MEGHARAJ MARUTI	67	0	0	67
34	S190738534	KULKARNI GANESH KASHINATH	72	0	0	72
35	S190738535	MAGAR RASHI RAJESH	55	0	0	55
36	S190738536	MANE SIDDHANT SURESH	50	0	0	50
37	S190738537	MEHTA MAYUR VISHAL	59	0	0	59
38	S190738538	NALAWADE VIRAJ JAYSING	58	0	0	58
39	S190738539	NIRPHAL ABHIJEET SAYAJI	54	0	0	54
40	S190738540	PABLE GAURAV DIGAMBAR	45	0	0	45
41	S190738541	PAIKEKARI PRATIK DHANAJI	76	0	0	76
42	S190738542	PANDARKAR GAURAV BHAUSAHEB	55	0	0	55
43	S190738543	PANDIT VIRAJ VIKAS	59	0	0	59
44	S190738544	PARSE POURNIMA DILIP	45	0	0	45
45	S190738545	PATEL FARZIN ASIFIKBAL	55	0	0	55
46	S190738546	PATIL ABHIJIT ASHOK	73	0	0	73



47	S190738547	PATIL ATUL SUYOG	44	0	0	44
48	S190738548	PATIL RITESH PRAKASH	54	0	0	54
49	S190738549	PATIL SHRUTIKA SHIRISH	53	0	0	53
50	S190738550	PATIL SWAPNIL DADASAHEB	73	0	0	73
51	S190738551	POKALE SWAPNIL VIJAY	45	0	0	45
52	S190738552	POTE SAURABH SUNIL	62	0	0	62
53	S190738553	PRAJAKTA PRABHAKAR LANDGE	53	0	0	53
54	S190738554	PUSDEKAR LOKESH DNYANESHWAR	47	0	0	47
55	S190738555	ROHAN GANESH LOKHANDE	78	0	0	78
56	S190738556	RUTUJA VIJAY SHITOLE	68	0	0	68
57	S190738557	SAGAR BALASAHEB GONJARE	70	0	0	70
58	S190738558	SAHIL YADAV MOTHER	40	0	0	40
59	S190738559	SAKORE ABHISHEK GANESH	55	0	0	55
60	S190738560	SAKSHI SANTOSH GHANWAT	AB	0	0	AB
61	S190738561	SALUNKE AJAY GANESH	43	0	0	43
62	S190738562	SALUNKE ROHAN BHARAT	40	0	0	40
63	S190738563	SANKET VIJAY JADHAV	24	0	0	24
64	S190738564	SHAIKH AYAN SHAUQAT	40	0	0	40
65	S190738565	SHAIKH MERAJ ASHFAQE	47	0	0	47
66	S190738566	SHINDE RAMESHWAR KALIDASRAO	40	0	0	40
67	S190738567	SWAMI SHIVAM SOMANATH	57	0	0	57
68	S190738568	TANGADE PRATHMESH PRAVIN	68	0	0	68
69	S190738569	THOMBARE ANURADHA DADASAHEB	84	0	0	84
70	S190738570	THORVE SANSKRUTI DADASAHEB	61	0	0	61
71	S190738571	TILEKAR VAISHNAVI DATTATRAY	34	0	0	34
72	S190738572	TUSHAR ANIL KOLHE	45	0	0	45
73	S190738573	VARMA ARYAN OMPRAKASH	40	0	0	40
74	S190738574	WAGH KHUSHI SHEKHAR	43	0	0	43
75	S190738575	YADAV PRINCE SURESH	52	0	0	52
76	S190738576	YELAM SANKET VIJAY	43	0	0	43
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						42
<b>TOTAL NO. OF STUDENTS</b>						76
<b>CO ATTAINMENT in %</b>						55.26315789
<b>ATTAINMENT LEVEL</b>						2



Direct Assessment				
CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	43.42	55.26	51.71	2.00
CO2	50.00	55.26	53.68	2.00
CO3	48.68	55.26	53.29	2.00
CO4	17.11	55.26	43.82	1.00
CO5	32.89	55.26	48.55	1.00
CO6	26.32	55.26	46.58	1.00

1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks

2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)

Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	43.42		
2	50.00		
3	48.68		
4	17.11		
5	32.89		
6	26.32		

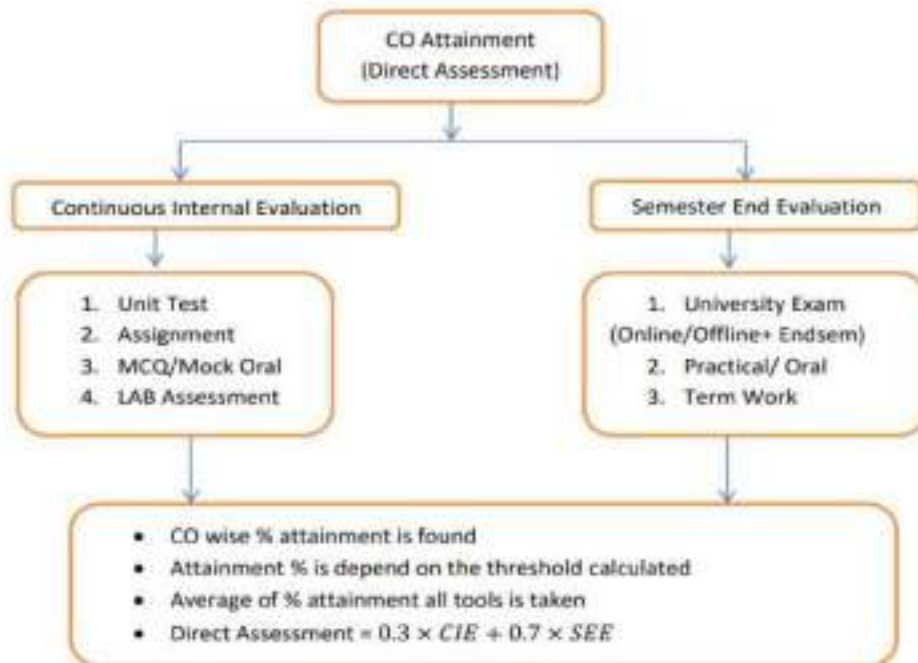
Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	48.55		

CO-PO MAPPING															
CO	CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02
CO1	C2141	3.00		2.00		3.00							2.00	3.00	1.00
CO2	C2142	3.00	3.00	3.00	3.00	3.00				3.00			3.00	3.00	3.00
CO3	C2143	3.00	3.00	3.00	3.00	3.00							3.00	3.00	3.00
CO4	C2144	3.00		3.00		3.00	3.00	3.00	3.00		3.00	3.00	3.00	3.00	3.00
CO5	C2145	3.00	3.00	3.00	3.00	3.00				3.00			3.00	3.00	3.00
CO6	C2146	3.00		3.00		3.00				3.00			3.00	3.00	3.00
<b>Average</b>		<b>3.00</b>	<b>2.00</b>	<b>2.17</b>	<b>2.90</b>	<b>3.00</b>	<b>3.00</b>	<b>2.00</b>	<b>3.00</b>	<b>1.97</b>	<b>2.00</b>	<b>3.00</b>	<b>2.00</b>	<b>3.00</b>	<b>2.90</b>

CO	% CO ATTN	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8		PO9		PO10		PO11		PO12		PS01		PS02			
		Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn		
CO1	51.71	3.00	1.55	3.00	0.00	3.00	1.07					0.00	0.00	0.00	0.00									2.00	1.00	3.00	0.52	3.00	0.52		
CO2	53.68	3.00	3.00	3.00	1.07							0.00	0.00	0.00	0.00	0.00	0.00							3.00	0.00			3.00	1.07	3.00	1.07
CO3	53.39	3.00	3.00	3.00	1.07							0.00	0.00	0.00	0.00									3.00	0.00			3.00	1.07	3.00	0.52
CO4	43.82	3.00	1.31	3.00	0.00							3.00	1.31											3.00	0.00	3.00	0.00	3.00	0.00	3.00	0.00
CO5	45.55	3.00	1.40	3.00	0.97	3.00	0.07	3.00	1.40			0.00	0.00			0.00	0.00							3.00	0.07	3.00	0.40	3.00	1.40		
CO6	46.58	3.00	1.41	3.00	0.00							0.00	0.00			0.00	0.00							3.00	0.00	3.00	0.52	3.00	1.41		
<b>Average</b>		<b>3.00</b>	<b>1.49</b>	<b>1.80</b>	<b>0.52</b>	<b>2.00</b>	<b>1.00</b>	<b>3.00</b>	<b>1.46</b>			<b>0.50</b>	<b>0.22</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>							<b>0.00</b>	<b>0.00</b>	<b>2.00</b>	<b>0.99</b>	<b>1.50</b>	<b>0.74</b>	<b>2.00</b>	<b>0.95</b>

ATTAINED POPS0 VALUES													
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02
1.49	0.52	1.80	1.46	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.74	0.95



Subject: Theory of Computation

CO	DESCRIPTION
CO-1	Examine finite automata and its variants in solving computing problems.
CO-2	Write regular expressions for the regular languages and finite automata.
CO-3	Identify types of grammar along with simplicity Context Free Grammar.
CO-4	Examine Pushdown Automata machines for the Context Free Language.
CO-5	Design and study Turing machines for formal languages.
CO-6	Explain non-decidable and undecidable problems, analyze complexity classes.

CO-PO MAPPING														
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1	100	100	100	100	100								100	100
CO2	100	100	100	100	100								100	100
CO3	100	100	100	100	100	100							100	100
CO4	100	100	100	100	100								100	100
CO5	100	100	100	100	100								100	100
CO6	100	100	100	100	100								100	100
Average	1.00	1.00	1.00	1.00	1.00	1.00	100/100	100/100	100/100	100/100	100/100	100/100	1.00	1.00

#### Assessment Tool and Matrix

Internal Tools (CIE)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	20	20	20	20	20	20
End Exam	30	30	30	30	30	30

External Tools (SEE)	CO1	CO2	CO3	CO4	CO5	CO6
PROJECT	20	20	20	20	20	20
PRESENTATION	20	20	20	20	20	20
ORAL / PRACTICAL	25	25	25	25	25	25
TERM WORK	20	20	20	20	20	20

ATTAINMENT LEVELS	
LR (L1, L2)	More than 75% Students scoring Threshold Marks (75% <= M1 <= 100%)
LR (L1, L3)	80% or 14% Students scoring Threshold Marks (80% <= M1 <= 100%)
LR (L1, L4)	Less than 80% Students scoring Threshold Marks (80% <= M1 <= 100%)







**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Theory of Computation**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	ORAL / PRACTICAL	TERM WORK	CO1 TO CO6
			100	0	0	100
			100	0	0	100
1	T190738501	AMAR HAUSHIRAM KARANDE	43	0	0	43
2	T190738502	AMUP ASMITA ARJUN	62	0	0	62
3	T190738503	ANAY GAJANAN KALE	48	0	0	48
4	T190738504	ATHARVA RAKESH PANDAV	67	0	0	67
5	T190738505	BAGADE SAJAL SURENDRA	43	0	0	43
6	T190738506	BANDAL SHREYAS BHAGWANRAO	26	0	0	26
7	T190738508	BHOR VAISHALI KISAN	72	0	0	72
8	T190738509	BHOSAGE NIKITA BANDESH	51	0	0	51
9	T190738510	BHOSALE PRATIKSHA BALASAHEB	54	0	0	54
10	T190738511	BIDVE ASHISH UMESH	45	0	0	45
11	T190738512	BORAWAKE ATHARVA SANJAY	47	0	0	47
12	T190738513	CHAUDHARI ADITYA KONDIRAM	20	0	0	20
13	T190738514	CHAVAN NIRAJ BHAUSAHEB	45	0	0	45
14	T190738516	DEHADI GAURI SANJAY	65	0	0	65
15	T190738517	DEOKAR OMKAR TUKARAM	55	0	0	55
16	T190738518	DESHMANE RADHIKA MUKTESHWAR	32	0	0	32
17	T190738519	DESHMUKH ANAND RAHUL	33	0	0	33
18	T190738520	DESHMUKH OMKAR SHANTARAM	44	0	0	44
19	T190738521	DESHMUKH TEJAS DADASAHEB	32	0	0	32
20	T190738522	DHUMAL HARSH DEEPAK	44	0	0	44
21	T190738523	DIGE SHRIKANT HANUMANT	55	0	0	55
22	T190738524	EKHANDE AKSHAY DATTATRAY	46	0	0	46
23	T190738525	EKKE ROHAN KAILASNATH	12	0	0	12
24	T190738526	FALEGAONKAR ASHUTOSH MADAN	54	0	0	54
25	T190738528	GAIKWAD MRUNAL SIDDHARTH	24	0	0	24
26	T190738529	GAIKWAD MUKTA LAXMAN	76	0	0	76
27	T190738532	ILAG PRATHAMESH VILAS	44	0	0	44
28	T190738533	JAGTAP PRITI SITARAM	58	0	0	58
29	T190738535	JAGTAP SHRADDHA MANSING	30	0	0	30
30	T190738537	JAIN TUSHAR NANDLAL	42	0	0	42
31	T190738538	KAMBALE KSHITIJA SUDHAKAR	53	0	0	53
32	T190738539	KAMBLE GAURAV RAMESH	34	0	0	34
33	T190738540	KAMBLE VAIBHAVI GANESH	73	0	0	73
34	T190738541	KATKAR PURVA MAHENDRA	70	0	0	70
35	T190738542	KOMAL ABASAHEB JADHWAR	40	0	0	40
36	T190738545	KULKARNI AYUSHI PRASHANT	45	0	0	45
37	T190738546	KULKARNI HARISH BHAGWANRAO	51	0	0	51
38	T190738548	KUWAR SHRUTI RAJESH	63	0	0	63
39	T190738550	MAYKAR KIRAN KALYANRAO	21	0	0	21
40	T190738551	MEHETRE TEJAS VIJAYKUMAR	59	0	0	59
41	T190738553	MOMIN SOHEL KHAJAMAINODDIN	40	0	0	40
42	T190738554	MUKESH MANOHAR NARWADE	47	0	0	47
43	T190738555	MULLA SARFRAJ TAJUDDIN	57	0	0	57
44	T190738557	NIKALJE PRIYANK SUNIL	50	0	0	50
45	T190738559	NISARG DEVENDRA NAVALE	56	0	0	56
46	T190738560	PATIL CHETANA CHANDRAKANT	44	0	0	44

47	T190738561	PAWAR RAJANI SHANTARAM	49	0	0	49
48	T190738563	PRIYADARSHAN BHAGWAT KHAVTODE	23	0	0	23
49	T190738564	PRIYANSHI NAYAK MOTHER	60	0	0	60
50	T190738565	PURI DATTATRAY SURESH	35	0	0	35
51	T190738566	RISHABH BHAGVAN CHOUDHAR	43	0	0	43
52	T190738567	ROHAN RAM ZIL	49	0	0	49
53	T190738568	SANKET PRAVIN KAUTKAR	45	0	0	45
54	T190738569	SANKET SAHADEV JADHAV	34	0	0	34
55	T190738570	SANKLECHA PRATIK PRAVIN	57	0	0	57
56	T190738571	SATPUTE SAURABH BALIRAM	43	0	0	43
57	T190738572	SAWANT RANAJEET RAPURAO	48	0	0	48
58	T190738573	SHAIKH SAHIL SHAIKH	52	0	0	52
59	T190738574	SHAIKH ZAHEER ISMAIL	66	0	0	66
60	T190738576	SHEJVAL SAKSHI SHARAD	64	0	0	64
61	T190738577	SHEJWAL RUDRA MANOHAR	60	0	0	60
62	T190738578	SHELAKESHWARI SANJAY	64	0	0	64
63	T190738580	SHETE YASH VITTHAL	53	0	0	53
64	T190738581	SHINDE PRATHAMESH SHASHIKANT	49	0	0	49
65	T190738582	SHRUTI SANDEEP BHAVSAR	37	0	0	37
66	T190738584	SOMVANSHI VIKAS PRAKASH	31	0	0	31
67	T190738585	SUMIT SURYAKANT KATKAR	54	0	0	54
68	T190738586	SYED SAIF ALI	43	0	0	43
69	T190738587	TAYADE PURVAK KAMALAKAR	37	0	0	37
70	T190738588	TEKALE SAURABH RAGSAHEB	63	0	0	63
71	T190738589	VIGHE PRADYUMNA SOPAN	46	0	0	46
72	T190738590	WAGH DNYANESHWAR BHAGWANRAO	38	0	0	38
73	T190738592	YAMGAR KARAN DNYANOBA	28	0	0	28
74	T190738593	YASHASHREE DHANRAJ BOROLE	57	0	0	57
75	T190738595	MORE ANANYA ASHOK	36	0	0	36
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						44
<b>TOTAL NO. OF STUDENTS</b>						76
<b>CO ATTAINMENT in %</b>						57.89473684
<b>ATTAINMENT LEVEL</b>						2



<b>Direct Assessment</b>				
<b>CO</b>	<b>Continuous Internal Evaluation (CIE) [A]</b>	<b>Semester End Evaluation (SEE) [B]</b>	<b>OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)</b>	<b>ATTAINMENT LEVEL</b>
CO1	94.67	57.89	68.93	2.00
CO2	94.67	57.89	68.93	2.00
CO3	96.00	57.89	69.33	2.00
CO4	88.00	57.89	66.93	2.00
CO5	94.67	57.89	68.93	2.00
CO6	81.33	57.89	64.93	2.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

Table1: Target vs attainment (CIE)

<b>CO</b>	<b>CIE attainment</b>	<b>Gap</b>	<b>Action Planned</b>
1	94.67		
2	94.67		
3	96.00		
4	88.00		
5	94.67		
6	81.33		

Table 2: Target vs attainment (SEE)

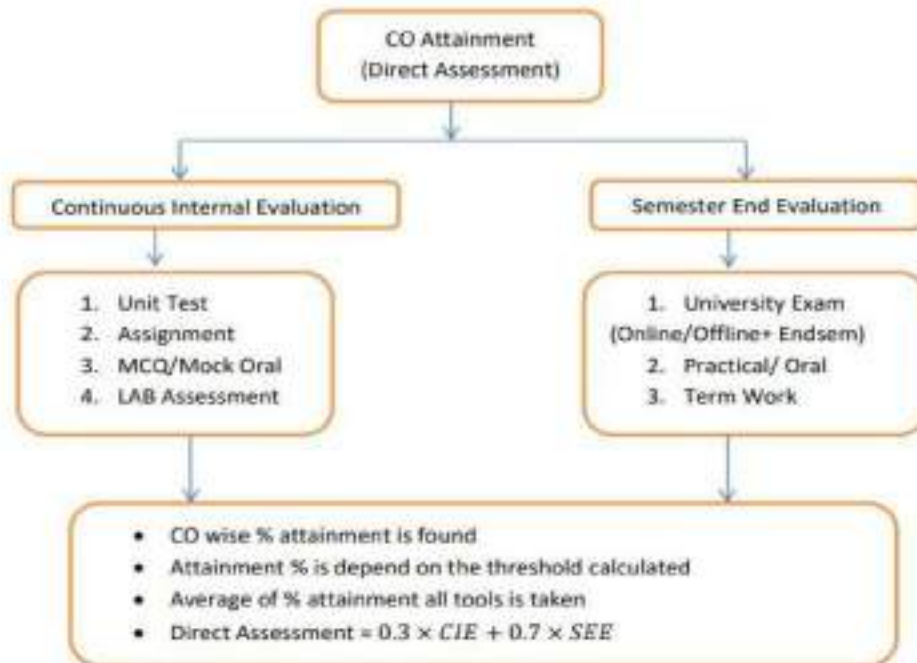
<b>CO</b>	<b>SEE attainment</b>	<b>Gap</b>	<b>Action Planned</b>
1TO6	68.93		

CO-PO MAPPING															
CO	CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02
CO1	C36L1	3.00	1.00	2.00	2.00	3.00								1.00	1.00
CO2	C36L2	3.00	3.00	2.00	1.00	3.00								1.00	2.00
CO3	C36L3	3.00	3.00	2.00	2.00	3.00	1.00							1.00	1.00
CO4	C36L4	3.00	1.00	3.00		3.00								1.00	2.00
CO5	C36L5	3.00	1.00	3.00		3.00								1.00	3.00
CO6	C36L6	3.00	1.00	3.00		3.00								1.00	1.00
<b>Average</b>		<b>3.00</b>	<b>1.33</b>	<b>2.00</b>	<b>1.87</b>	<b>3.00</b>	<b>1.00</b>							<b>1.00</b>	<b>1.87</b>

CO	% CO ATTN	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8		PO9		PO10		PO11		PO12		PS01		PS02		
		Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	
CO1	68.93	3.00	2.07	1.00	0.96	3.00	1.33					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.99	1.00	0.98
CO2	65.35	3.00	2.07	1.00	1.38							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.90	2.00	1.38
CO3	69.33	3.00	2.08	1.00	1.38							1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.95	1.00	0.98
CO4	66.93	3.00	2.04	1.00	0.67							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.87	1.00	1.34	
CO5	68.93	3.00	2.07	1.00	0.68	3.00	1.33	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.89	2.00	2.07	
CO6	64.93	3.00	1.85	1.00	0.55							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.85	1.00	0.65	
<b>Average</b>		<b>3.00</b>	<b>2.04</b>	<b>1.33</b>	<b>0.91</b>	<b>2.00</b>	<b>1.26</b>	<b>0.00</b>	<b>0.00</b>			<b>0.17</b>	<b>0.12</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.00</b>	<b>0.88</b>	<b>1.67</b>	<b>1.14</b>

ATTAINED POPS0 VALUES													
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02
2.04	0.91	1.33	0.90	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.14





**Advance Operating Systems**

CO	Learning Outcome	CO-LO Mapping
CO-1	Understanding the role of Windows Operating System.	
CO-2	Apply the concepts of process and thread scheduling.	
CO-3	Apply the concept of services (as the sockets, mutual exclusion and file sharing).	
CO-4	Understand and apply the concepts of custom system's management techniques.	
CO-5	Make use of concept of RTI management and File system.	
CO-6	Advanced features of System software.	

	CO-LO MAPPING													
CO	LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10	LO11	LO12	LO13	LO14
CO1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CO2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CO3	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CO4	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CO5	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CO6	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<b>Average</b>	<b>2.00</b>	<b>2.23</b>	<b>2.23</b>	<b>2.00</b>	<b>2.00</b>	<b>1.87</b>	<b>1.87</b>	<b>1.86</b>	<b>2.00</b>	<b>1.28</b>	<b>2.00</b>	<b>2.00</b>	<b>2.00</b>	<b>2.00</b>

**Assessment Tool and Matrix**

Internal Test (IT)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	10	10	10	10	10	10
Lab Test	10	10	10	10	10	10

External Test (ET)	CO1	CO2	CO3	CO4	CO5	CO6
THORON	10	10	10	10	10	10
THORON2	10	10	10	10	10	10
ORAC1	10	10	10	10	10	10
<b>PRACTICAL</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>
<b>THORON SCORE</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>

**ATTAINMENT LEVELS**

LEVEL 3:	More than 70% Students scoring Threshold Marks (70% to 100%)
LEVEL 2:	50% to 70% Students scoring Threshold Marks (50% to 70%)
LEVEL 1:	Less than 50% Students scoring Threshold Marks (0% to 50%)





**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT: Operating Systems**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	ORAL / PRACTICAL	TERM WORK	CO1 TO CO6
			100	25	25	150
			10	10	10	30
1	T190738501	AMAR HAUSHIRAM KARANDE	47	22	15	84
2	T190738502	AMUP ASMITA ARJUN	51	21	19	91
3	T190738503	ANAY GAJANAN KALE	61	21	18	100
4	T190738504	ATHARVA RAKESH PANDAV	66	23	19	108
5	T190738505	BAGADE SAJAL SURENDRA	54	20	16	90
6	T190738506	BANDAL SHREYAS BHAGWANRAO	40	17	14	71
7	T190738508	BHOR VAISHALI KISAN	69	23	20	112
8	T190738509	BHOSAGE NIKITA BANDESH	69	23	23	115
9	T190738510	BHOSALE PRATIKSHA BALASAHEB	53	21	19	93
10	T190738511	BIDVE ASHISH UMESH	47	23	18	88
11	T190738512	BORAWAKE ATHARVA SANJAY	54	22	22	98
12	T190738513	CHAUDHARI ADITYA KONDIRAM	44	22	20	86
13	T190738514	CHAVAN NIRAJ BHAUSAHEB	44	21	17	82
14	T190738516	DEHADI GAURI SANJAY	56	22	22	100
15	T190738517	DEOKAR OMKAR TUKARAM	58	22	16	96
16	T190738518	DESHMANE RADHIKA MUKTESHWAR	46	21	21	88
17	T190738519	DESHMUKH ANAND RAHUL	28	19	14	61
18	T190738520	DESHMUKH OMKAR SHANTARAM	51	21	22	94
19	T190738521	DESHMUKH TEJAS DADASAHEB	53	20	13	86
20	T190738522	DHUMAL HARSH DEEPAK	49	20	13	82
21	T190738523	DIGE SHRIKANT HANUMANT	57	21	19	97
22	T190738524	EKHANDE AKSHAY DATTATRAY	56	20	13	89
23	T190738525	EKKE ROHAN KAILASNATH	13	13	5	31
24	T190738526	FALEGAONKAR ASHUTOSH MADAN	50	23	23	105
25	T190738528	GAIKWAD MRUNAL SIDHARTH	42	22	14	78
26	T190738529	GAIKWAD MUKTA LAXMAN	67	23	23	113
27	T190738532	ILAG PRATHAMESH VILAS	54	21	14	89
28	T190738533	JAGTAP PRITI SITARAM	68	20	21	109
29	T190738535	JAGTAP SHRADDHA MANSING	29	20	14	63
30	T190738537	JAIN TUSHAR NANDLAL	36	19	15	70
31	T190738538	KAMBALE KSHITIJA SUDHAKAR	46	20	14	80
32	T190738539	KAMBLE GAURAV RAMESH	51	21	14	86
33	T190738540	KAMBLE VAIBHAVI GANESH	53	22	21	96
34	T190738541	KATKAR PURVA MAHENDRA	59	22	22	103
35	T190738542	KOMAL ABAASAHEB JADHWAR	55	23	23	101
36	T190738545	KULKARNI AYUSHI PRASHANT	49	23	23	95
37	T190738546	KULKARNI HARISH BHAGWANRAO	50	21	14	85
38	T190738548	KUWAR SHRUTI RAJESH	55	22	21	98
39	T190738550	MAYKAR KIRAN KALYANRAO	38	21	14	73
40	T190738551	MEHETRE TEJAS VIJAYKUMAR	62	20	15	97
41	T190738553	MOMIN SOHEL KHAJAMAINODDIN	45	21	16	82
42	T190738554	MUKESH MANOHAR NARWADE	37	20	19	76
43	T190738555	MULLA SARFRAJ TAJUDDIN	48	20	15	83
44	T190738557	NIKALIE PRIYANK SUNIL	68	21	17	106
45	T190738559	NISARG DEVENDRA NAVALE	54	22	22	98
46	T190738560	PATIL CHETANA CHANDRAKANT	54	20	21	95
47	T190738561	PAWAR RAJANI SHANTARAM	46	23	20	89
48	T190738563	PRIYADARSHAN BHAGWAT KHAVTODE	45	20	14	79
49	T190738564	PRIYANSHI NAYAK MOTHER	54	22	14	90
50	T190738565	PURI DATTATRAY SURESH	25	20	15	60
51	T190738566	RISHABH BHAGVAN CHOUDHAR	39	21	21	81
52	T190738567	ROHAN RAM ZIL	45	22	20	87
53	T190738568	SANKET PRAVIN KAUTKAR	29	21	21	71



54	T190738569	SANKET SAHADEV JADHAV	51	22	19	92
55	T190738570	SANKLECHA PRATIK PRAVIN	38	22	22	82
56	T190738571	SATPUTE SAURABH BALIRAM	46	21	18	85
57	T190738572	SAWANT RANAJEET BAPURAO	54	20	16	90
58	T190738573	SHAIKH SAHIL SHAIKH	55	20	18	93
59	T190738574	SHAIKH ZAHEER ISMAIL	71	20	23	114
60	T190738576	SHEJVAL SAKSHI SHARAD	58	20	20	98
61	T190738577	SHEJVAL RUDRA MANDHAR	65	22	18	105
62	T190738578	SHELAKHE ISHWARI SANJAY	68	23	23	114
63	T190738580	SHETE YASH VITTHAL	52	22	15	89
64	T190738581	SHINDE PRATHAMESH SHASHIKANT	52	22	14	88
65	T190738582	SHRUTI SANDEEP BHAVSAR	46	21	14	81
66	T190738584	SOMVANSHI VIKAS PRAKASH	35	20	19	74
67	T190738585	SUMIT SURYAKANT KATKAR	57	21	18	96
68	T190738586	SYED SAIF ALI	40	19	19	78
69	T190738587	TAYADE PURVAK KAMALAKAR	30	21	14	65
70	T190738588	TEKALE SAURABH RAOSAHEB	63	23	23	109
71	T190738589	VIGHE PRADYUMNA SOPAN	50	22	18	90
72	T190738590	WAGH DNYANESHWAR BHAGWANRAO	45	20	6	71
73	T190738592	YAMGAR KARAN DNYANOBA	47	20	5	72
74	T190738593	YASHASHREE DHANRAJ BOROLE	62	22	18	102
75	T190738595	MORE ANANYA ASHOK	25	13	AB	38
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						58
<b>TOTAL NO. OF STUDENTS</b>						76
<b>CO ATTAINMENT in %</b>						76.31578947
<b>ATTAINMENT LEVEL</b>						3

Direct Assessment				
CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	56.58	76.32	70.39	2.00
CO2	80.26	76.32	77.50	3.00
CO3	71.05	76.32	74.74	2.00
CO4	61.84	76.32	71.97	2.00
CO5	51.32	76.32	68.82	2.00
CO6	67.11	76.32	73.55	2.00

1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks

2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)

Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	56.58		
2	80.26		
3	71.05		
4	61.84		
5	51.32		
6	67.11		

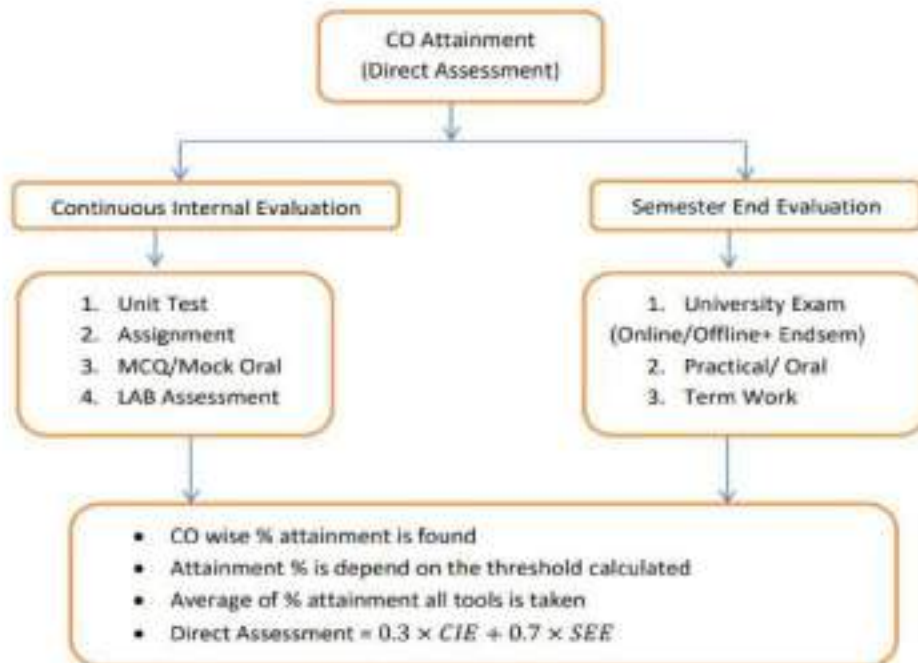
Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	68.82		

CO PO HAPPEN														
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
138	1.951	1.99	1.9	1.9	1.99	1.9	1.9	1.99	1.9	1.9	1.99	1.9	1.9	1.99
139	1.982	1.99	1.9	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
140	1.982	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
141	1.982	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
142	1.982	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
143	1.982	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
144	1.982	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
145	1.982	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
146	1.982	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
Average	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	PO15
	Mag	Act	Mag	Act	Mag	Act	Mag	Act	Mag	Act	Mag	Act	Mag	Act	Mag
138	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
139	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
140	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
141	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
142	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
143	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
144	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
145	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
146	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
Average	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99

ATTACHED PO VALUES														
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	PO15
1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99



**Advance Machine Learning**

CO	LO	DESCRIPTION
CO-1	LO-1	Apply basic concepts of machine learning and discuss various types of machine learning algorithms.
CO-2	LO-2	Use decision tree, regression techniques and evaluate their performance.
CO-3	LO-3	Compare different types of classification models and their relevant applications.
CO-4	LO-4	Study on the linear, and polynomial, machine learning algorithms.
CO-5	LO-5	Identify different supervised learning algorithms for the related real-world problems.
CO-6	LO-6	Apply backpropagation concepts of ANN.

COURSE MAPPING													
CO	DS1	DS2	DS3	DS4	DS5	DS6	DS7	DS8	DS9	DS10	DS11	DS12	DS13
CO1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CO2	1.00	1.00	1.00	1.00	1.00		1.00	1.00					
CO3	1.00	1.00	1.00	1.00	1.00							1.00	1.00
CO4	1.00	1.00	1.00	1.00	1.00	1.00						1.00	1.00
CO5	1.00	1.00	1.00	1.00	1.00							1.00	1.00
CO6	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00
<b>Average</b>	<b>2.00</b>	<b>2.25</b>	<b>2.25</b>	<b>2.00</b>	<b>2.00</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>2.00</b>	<b>1.25</b>	<b>2.00</b>	<b>2.00</b>	<b>2.00</b>

**Assessment Tool and Matrix**

Assess Tool (AT)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	10	10	10	10	10	10
Lab Test	10	10	10	10	10	10

Assess Tool (AT)	DS1	DS2	DS3	DS4	DS5	DS6
THORON	10	10	10	10	10	10
PROBON	10	10	10	10	10	10
ORAC	10	10	10	10	10	10
<b>PRACTICAL</b>						
<b>THORON</b>	10	10	10	10	10	10

**ATTAINMENT LEVELS**

LEVEL: 3	More than 70% Students scoring Threshold Marks (70% to 100%)
LEVEL: 2	50% to 70% Students scoring Threshold Marks (50% to 70%)
LEVEL: 1	Less than 50% Students scoring Threshold Marks (0% to 50%)



## INTERNAL ASSESSMENT RECORD

SUBJECT: Machine Learning

Class: TE SEM: I

Sl. No.	Roll No.	Name of Student	Assignment										Lab Exp									
			001	002	003	004	005	006	007	008	009	010	001	002	003	004	005	006	007	008	009	010
1	TK000001	ANUR BALARAM GADGE	8	7	9	7	8	8	12	8	9	9	9	9	9	20	15	14	13	12	17	
2	TK000002	ANUR SHARF S BHOJ	8	8	7	8	7	8	10	10	10	10	10	10	10	15	10	11	10	10	10	
3	TK000003	ANUR SURESHKANTH	8	8	7	8	7	7	7	7	11	10	10	10	9	15	10	10	10	11	10	
4	TK000004	ANUR SUKANTH PANGAL	8	8	8	8	7	7	10	8	8	8	8	8	8	10	10	10	10	11	10	
5	TK000005	ANUR SURESH SURESH	8	8	7	8	7	8	7	8	7	8	8	8	8	17	10	11	10	10	10	
6	TK000006	ANUR SURESH SURESHKANTH	8	7	8	8	8	8	11	10	10	10	10	10	10	10	10	10	10	10	10	
7	TK000007	ANUR SURESH SURESH	7	8	7	8	7	7	7	7	7	7	10	10	10	10	10	10	10	10	10	
8	TK000008	ANUR SURESH SURESH	8	8	7	8	8	9	10	9	10	10	10	10	10	10	10	10	10	10	10	
9	TK000009	ANUR SURESH SURESH	8	7	7	8	8	7	8	7	7	7	7	7	7	10	10	10	10	10	10	
10	TK000010	ANUR SURESH SURESH	8	8	7	8	7	8	10	7	8	10	10	10	10	10	10	10	10	10	10	
11	TK000011	ANUR SURESH SURESH	7	8	7	8	7	8	7	7	7	7	7	7	7	10	10	10	10	10	10	
12	TK000012	ANUR SURESH SURESH	8	8	7	8	7	7	7	7	7	7	7	7	7	10	10	10	10	10	10	
13	TK000013	ANUR SURESH SURESH	7	7	7	8	7	7	7	7	7	7	7	7	7	10	10	10	10	10	10	
14	TK000014	ANUR SURESH SURESH	7	8	7	8	7	7	7	7	7	7	7	7	7	10	10	10	10	10	10	
15	TK000015	ANUR SURESH SURESH	7	7	7	7	8	7	8	7	8	7	8	7	8	10	10	10	10	10	10	
16	TK000016	ANUR SURESH SURESH	8	8	8	8	8	8	7	8	8	8	8	8	8	10	10	10	10	10	10	
17	TK000017	ANUR SURESH SURESH	8	8	8	8	8	8	7	7	7	7	7	7	7	10	10	10	10	10	10	
18	TK000018	ANUR SURESH SURESH	7	8	8	8	8	8	7	7	7	7	7	7	7	10	10	10	10	10	10	
19	TK000019	ANUR SURESH SURESH	8	8	8	8	8	8	10	10	10	10	10	10	10	10	10	10	10	10	10	
20	TK000020	ANUR SURESH SURESH	8	8	7	8	7	8	7	8	7	8	7	8	7	10	10	10	10	10	10	
21	TK000021	ANUR SURESH SURESH	8	8	7	8	7	8	7	8	7	8	7	8	7	10	10	10	10	10	10	
22	TK000022	ANUR SURESH SURESH	8	8	7	8	7	8	7	8	7	8	7	8	7	10	10	10	10	10	10	
23	TK000023	ANUR SURESH SURESH	8	8	7	8	7	8	7	8	7	8	7	8	7	10	10	10	10	10	10	
24	TK000024	ANUR SURESH SURESH	8	8	7	8	7	8	7	8	7	8	7	8	7	10	10	10	10	10	10	
25	TK000025	ANUR SURESH SURESH	8	8	7	8	7	8	7	8	7	8	7	8	7	10	10	10	10	10	10	
26	TK000026	ANUR SURESH SURESH	8	8	7	8	7	8	7	8	7	8	7	8	7	10	10	10	10	10	10	
27	TK000027	ANUR SURESH SURESH	8	8	7	8	7	8	7	8	7	8	7	8	7	10	10	10	10	10	10	
28	TK000028	ANUR SURESH SURESH	8	8	7	8	7	8	7	8	7	8	7	8	7	10	10	10	10	10	10	



**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Machine Learning**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	ORAL / PRACTICAL	TERM WORK	CO1 TO CO6
			100	25	25	150
			10	10	10	30
1	T190738501	AMAR HAUSHIRAM KARANDE	48	22	15	85
2	T190738502	AMUP ASMITA ARJUN	52	22	17	91
3	T190738503	ANAY GAJANAN KALE	50	21	10	81
4	T190738504	ATHARVA RAKESH PANDAV	67	23	19	109
5	T190738505	BAGADE SAJAL SURENDRA	40	21	11	72
6	T190738506	BANDAL SHREYAS BHAGWANRAO	31	18	7	56
7	T190738508	BHOR VAISHALI KISAN	55	23	20	98
8	T190738509	BHOSAGE NIKITA BANDESH	56	24	18	98
9	T190738510	BHOSALE PRATIKSHA BALASAHEB	48	19	12	79
10	T190738511	BIDVE ASHISH UMESH	49	23	20	92
11	T190738512	BORAWAKE ATHARVA SANJAY	52	22	18	92
12	T190738513	CHAUDHARI ADITYA KONDIRAM	23	19	10	52
13	T190738514	CHAVAN NIRAJ BHAUSAHEB	30	17	10	57
14	T190738516	DEHADI GAURI SANJAY	46	18	7	71
15	T190738517	DEOKAR OMKAR TUKARAM	48	21	20	89
16	T190738518	DESHMANE RADHIKA MUKTESHWAR	45	21	11	77
17	T190738519	DESHMUKH ANAND RAHUL	20	19	10	49
18	T190738520	DESHMUKH OMKAR SHANTARAM	49	21	17	87
19	T190738521	DESHMUKH TEJAS DADASAHEB	46	18	12	76
20	T190738522	DHUMAL HARSH DEEPAK	53	19	18	90
21	T190738523	DIGE SHRIKANT HANUMANT	49	22	19	90
22	T190738524	EKHANDA AKSHAY DATTATRAY	51	17	6	74
23	T190738525	EKKE ROHAN KAILASNATH	48	15	48	15
24	T190738526	FALEGAONKAR ASHUTOSH MADAN	50	24	23	106
25	T190738528	GAIKWAD MRUNAL SIDHARTH	35	19	7	61
26	T190738529	GAIKWAD MUKTA LAXMAN	20	24	22	116
27	T190738532	ILAG PRATHAMESH VILAS	56	20	10	86
28	T190738533	JAGTAP PRITI SITARAM	54	21	17	92
29	T190738535	JAGTAP SHRADDHA MANSING	45	18	16	79
30	T190738537	JAIN TUSHAR NANDLAL	52	16	5	73
31	T190738538	KAMBALE KSHITIJA SUDHAKAR	54	21	17	92
32	T190738539	KAMBLE GAURAV RAMESH	37	20	13	70
33	T190738540	KAMBLE VAIBHAVI GANESH	60	22	22	104
34	T190738541	KATKAR PURVA MAHENDRA	64	23	21	108
35	T190738542	KOMAL ABAASAHEB JADHWAR	46	22	12	80
36	T190738545	KULKARNI AYUSHI PRASHANT	46	22	10	78
37	T190738546	KULKARNI HARISH BHAGWANRAO	55	18	10	83
38	T190738548	KUWAR SHRUTI RAJESH	49	21	20	90
39	T190738550	MAYKAR KIRAN KALYANRAO	38	19	12	69
40	T190738551	MEHETRE TEJAS VIJAYKUMAR	66	23	21	110
41	T190738553	MOMIN SOHEL KHAJAMAINODDIN	52	20	11	83
42	T190738554	MUKESH MANOHAR NARWADE	38	19	7	64
43	T190738555	MULLA SARFRAJ TAJUDDIN	57	18	6	81
44	T190738557	NIKALIE PRIYANK SUNIL	53	21	17	91
45	T190738559	NISARG DEVENDRA NAVALE	64	22	21	107
46	T190738560	PATIL CHETANA CHANDRAKANT	49	17	11	77
47	T190738561	PAWAR RAJANI SHANTARAM	38	24	21	83
48	T190738563	PRIYADARSHAN BHAGWAT KHAVTODE	34	18	12	64
49	T190738564	PRIYANSHI NAYAK MOTHER	50	21	20	91
50	T190738565	PURI DATTATRAY SURESH	42	17	7	66
51	T190738566	RISHABH BHAGVAN CHOUDHAR	36	19	11	66
52	T190738567	ROHAN RAM ZIL	47	22	15	84
53	T190738568	SANKET PRAVIN KAUTKAR	36	21	11	68

54	T190738569	SANKET SAHADEV JADHAV	30	21	13	64
55	T190738570	SANKLECHA PRATIK PRAVIN	63	22	11	96
56	T190738571	SATPUTE SAURABH BALIRAM	34	21	12	67
57	T190738572	SAWANT RANAJEET BAPURAO	59	19	6	84
58	T190738573	SHAIKH SAHIL SHAIKH	38	20	7	65
59	T190738574	SHAIKH ZAHEER ISMAIL	70	23	21	114
60	T190738576	SHEJVAL SAKSHI SHARAD	67	21	13	101
61	T190738577	SHEJWAL RUDRA MANDHAR	58	20	17	95
62	T190738578	SHELAKHE ISHWARI SANJAY	61	24	23	108
63	T190738580	SHETE YASH VITTHAL	48	20	19	87
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65	T190738582	SHRUTI SANDEEP BHAVSAR	42	22	21	85
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67	T190738585	SUMIT SURYAKANT KATKAR	53	23	20	96
68	T190738586	SYED SAIF ALI	28	19	19	66
69	T190738587	TAYADE PURVAK KAMALAKAR	37	21	20	78
70	T190738588	TEKALE SAURABH RAOSAHEB	49	22	20	91
71	T190738589	VIGHE PRADYUMNA SOPAN	42	22	19	83
72	T190738590	WAGH DNYANESHWAR BHAGWANRAO	29	21	19	69
73	T190738592	YAMGAR KARAN DNYANOBA	25	17	14	56
74	T190738593	YASHASHREE DHANRAJ BOROLE	45	23	21	87
75	T190738595	MORE ANANYA ASHOK	30	15	AB	45
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						<b>43</b>
<b>TOTAL NO. OF STUDENTS</b>						<b>76</b>
<b>CO ATTAINMENT in %</b>						<b>56.57894737</b>
<b>ATTAINMENT LEVEL</b>						<b>2</b>



<b>Direct Assessment</b>				
<b>CO</b>	<b>Continuous Internal Evaluation (CIE) [A]</b>	<b>Semester End Evaluation (SEE) [B]</b>	<b>OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)</b>	<b>ATTAINMENT LEVEL</b>
CO1	78.67	56.58	63.21	2.00
CO2	66.67	56.58	59.61	2.00
CO3	65.33	56.58	59.21	2.00
CO4	66.67	56.58	59.61	2.00
CO5	66.67	56.58	59.61	2.00
CO6	65.33	56.58	59.21	2.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

Table1: Target vs attainment (CIE)

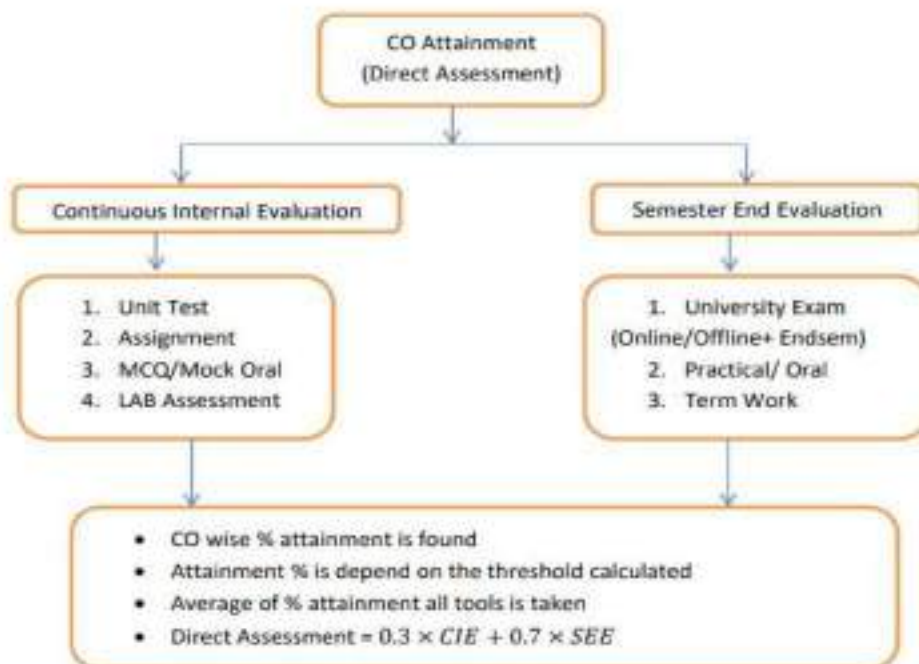
<b>CO</b>	<b>CIE attainment</b>	<b>Gap</b>	<b>Action Planned</b>
1	78.67		
2	66.67		
3	65.33		
4	66.67		
5	66.67		
6	65.33		

Table 2: Target vs attainment (SEE)

<b>CO</b>	<b>SEE attainment</b>	<b>Gap</b>	<b>Action Planned</b>
1TO6	59.61		







Subject: Human Computer Interaction

CO	DESCRIPTION
CO-1	Explain importance of HCI study and principles of user centered design (UCD) approach.
CO-2	Develop understanding of human factors in HCI design.
CO-3	Develop understanding of research, panels, eye, and control of interactions.
CO-4	Design efficient user interface following a structured and organized HCI process.
CO-5	Evaluate usability of a user interface design.
CO-6	Apply cognitive models for predicting human-computer interactions.

CO-PO MAPPING														
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1	100	100	100	100	100	100	100	100	100	100	100	100	100	100
CO2	100	100	100	100	100	100	100	100	100	100	100	100	100	100
CO3	100	100	100	100	100	100	100	100	100	100	100	100	100	100
CO4	100	100	100	100	100	100	100	100	100	100	100	100	100	100
CO5	100	100	100	100	100	100	100	100	100	100	100	100	100	100
CO6	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Average	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Assessment Tool and Matrix

Assessment Tools (CIE)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	20	20	20	20	20	20
End Exam	30	30	30	30	30	30

Assessment Tools (SEE)	CO1	CO2	CO3	CO4	CO5	CO6
THEORY	20	20	20	20	20	20
PROGRAM	20	20	20	20	20	20
THEORY / PRACTICAL	25	25	25	25	25	25
TERMINAL	20	20	20	20	20	20

ATTAINMENT LEVELS	
LR (LL-3)	More than 75% Students scoring Threshold Marks (75% <= 31.5-39.0%)
LR (LL-2)	80% to 75% Students scoring Threshold Marks (75% <= 31.5-39.0%)
LR (LL-1)	Less than 80% Students scoring Threshold Marks (75% <= 31.5-39.0%)

## INTERNAL ASSESSMENT RECORD

SUBJECT: **Home Computer Introduction**Class: **TE SEM: I**

Sl. No.	Roll No.	Name of Student	Assignment										Lab Exp									
			01	02	03	04	05	06	07	08	09	10	01	02	03	04	05	06	07	08	09	10
1	TK000001	ANUR RAJESH K	7	8	9	8	9	7	8	11	12	11	14	13	15	13	11	13	11	13	13	
2	TK000002	ANUR SHARATH S	8	7	9	7	8	8	10	9	10	11	12	13	15	15	17	18	19	21	21	
3	TK000003	ANUR SURESH K	8	8	9	8	7	8	9	11	11	14	12	15	17	17	19	20	21	22	23	
4	TK000004	ANUR SURESH P	8	7	9	7	8	8	9	11	10	9	12	9	13	13	15	16	17	18	17	
5	TK000005	ANUR SURESH S	7	8	9	8	7	8	9	10	11	10	12	9	13	13	15	16	17	18	18	
6	TK000006	ANUR SURESH S	8	8	9	7	8	7	7	11	10	11	9	11	10	12	12	14	15	16	17	
7	TK000007	ANUR SURESH S	8	7	9	7	8	8	7	9	9	9	11	10	12	13	14	15	17	18	18	
8	TK000008	ANUR SURESH S	8	7	9	8	7	8	9	9	9	11	10	12	13	14	15	16	17	18	18	
9	TK000009	ANUR SURESH S	8	8	9	8	8	8	9	9	11	11	13	13	15	17	17	18	20	21	21	
10	TK000010	ANUR SURESH S	7	8	9	8	7	8	9	10	11	9	10	9	12	12	14	15	17	17	18	
11	TK000011	ANUR SURESH S	8	7	9	8	8	8	9	11	11	10	11	9	10	10	12	13	15	16	17	
12	TK000012	ANUR SURESH S	7	8	9	7	8	7	7	11	10	11	10	11	11	13	14	15	16	17	18	
13	TK000013	ANUR SURESH S	7	8	9	7	7	7	7	11	11	10	9	10	11	13	14	15	16	17	18	
14	TK000014	ANUR SURESH S	7	8	9	7	7	7	7	11	11	10	9	10	11	13	14	15	16	17	18	
15	TK000015	ANUR SURESH S	8	7	9	8	8	8	9	10	10	11	10	11	12	13	14	15	17	17	18	
16	TK000016	ANUR SURESH S	8	8	9	8	8	7	8	11	11	9	10	12	13	14	15	17	17	18	19	
17	TK000017	ANUR SURESH S	8	8	9	8	7	8	9	10	10	11	10	11	12	13	14	15	17	17	18	
18	TK000018	ANUR SURESH S	8	8	9	8	8	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
19	TK000019	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
20	TK000020	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
21	TK000021	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
22	TK000022	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
23	TK000023	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
24	TK000024	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
25	TK000025	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
26	TK000026	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
27	TK000027	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
28	TK000028	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
29	TK000029	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
30	TK000030	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
31	TK000031	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
32	TK000032	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
33	TK000033	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
34	TK000034	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
35	TK000035	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
36	TK000036	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
37	TK000037	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
38	TK000038	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
39	TK000039	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
40	TK000040	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
41	TK000041	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
42	TK000042	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
43	TK000043	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
44	TK000044	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
45	TK000045	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
46	TK000046	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
47	TK000047	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
48	TK000048	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
49	TK000049	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	
50	TK000050	ANUR SURESH S	8	8	9	8	7	8	9	11	11	10	11	10	11	12	13	14	15	17	18	

40	FLUORIDE	BRANDEEMAN GARDENS	0	7	0	0	0	7	18	11	11	11	0	10	11	10	10	10	10
41	FLUORIDE	BRIDGE TOWN CHRISTIAN	7	0	0	7	7	0	14	21	21	21	0	12	12	12	12	12	12
42	FLUORIDE	BRIMMISILLI QUARRIES/DEM	0	7	0	7	7	0	14	21	21	21	0	12	12	12	12	12	
43	FLUORIDE	BURTON/MACDONALD/BRIDGE	7	0	0	0	0	7	14	21	21	21	0	12	12	12	12	12	
44	FLUORIDE	CHURCH LANE/ST JOHN	0	7	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
45	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	7	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
46	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
47	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
48	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
49	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
50	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
51	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
52	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
53	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
54	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
55	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
56	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
57	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
58	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
59	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
60	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
61	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
62	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
63	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
64	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
65	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
66	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
67	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
68	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
69	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
70	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
71	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
72	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
73	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
74	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	
75	FLUORIDE	CHURCH TOWN WEST/ST JAMES	0	0	0	0	0	0	0	0	0	0	0	11	10	10	10	10	

<b>STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>																			
<b>TOTAL NO. OF STUDENTS</b>																			
<b>CO ATTAINMENT IN %</b>																			
<b>ATTAINMENT LEVEL</b>																			
														47	44	44	47	48	50
														61.7	61.8	64	70	73.7	73.8
														3	3	3	3	3	3



**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Human Computer Interaction**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	ORAL / PRACTICAL	TERM WORK	CO1 TO CO6
			100	25	25	150
			10	10	10	30
1	T190738501	AMAR HAUSHIRAM KARANDE	59	29	15	103
2	T190738502	AMUP ASMITA ARJUN	61	33	17	111
3	T190738503	ANAY GAJANAN KALE	66	34	10	110
4	T190738504	ATHARVA RAKESH PANDAV	71	39	19	129
5	T190738505	BAGADE SAJAL SURENDRA	51	28	11	90
6	T190738506	BANDAL SHREYAS BHAGWANRAO	54	33	7	94
7	T190738508	BHOR VAISHALI KISAN	63	40	20	123
8	T190738509	BHOSAGE NIKITA BANDESH	68	40	18	126
9	T190738510	BHOSALE PRATIKSHA BALASAHEB	46	35	12	93
10	T190738511	BIDVE ASHISH UMESH	58	42	20	120
11	T190738512	BORAWAKE ATHARVA SANJAY	63	32	18	113
12	T190738513	CHAUDHARI ADITYA KONDIRAM	46	24	10	80
13	T190738514	CHAVAN NIRAJ BHAUSAHEB	50	32	10	92
14	T190738516	DEHADI GAURI SANJAY	66	38	7	111
15	T190738517	DEOKAR OMKAR TUKARAM	61	39	20	120
16	T190738518	DESHMANE RADHIKA MUKTESHWAR	49	33	11	93
17	T190738519	DESHMUKH ANAND RAHUL	42	39	10	91
18	T190738520	DESHMUKH OMKAR SHANTARAM	58	40	17	115
19	T190738521	DESHMUKH TEJAS DADASAHEB	45	34	12	91
20	T190738522	DHUMAL HARSH DEEPAK	57	30	18	105
21	T190738523	DIGE SHRIKANT HANUMANT	54	34	19	107
22	T190738524	EKHANDE AKSHAY DATTATRAY	50	23	6	79
23	T190738525	EKKE ROHAN KAILASNATH	12	AB	AB	12
24	T190738526	FALEGAONKAR ASHUTOSH MADAN	61	37	23	121
25	T190738528	GAIKWAD MRUNAL SIDHARTH	48	32	7	87
26	T190738529	GAIKWAD MUKTA LAXMAN	64	42	22	128
27	T190738532	ILAG PRATHAMESH VILAS	56	35	10	101
28	T190738533	JAGTAP PRIITI SITARAM	60	34	17	111
29	T190738535	JAGTAP SHRADDHA MANSING	48	31	16	95
30	T190738537	JAIN TUSHAR NANDLAL	53	40	5	98
31	T190738538	KAMBALE KSHITIJA SUDHAKAR	60	37	17	114
32	T190738539	KAMBLE GAURAV RAMESH	60	35	13	108
33	T190738540	KAMBLE VAIBHAVI GANESH	74	40	22	136
34	T190738541	KATKAR PURVA MAHENDRA	82	40	21	143
35	T190738542	KOMAL ABAASAHEB JADHWAR	61	38	12	111
36	T190738545	KULKARNI AYUSHI PRASHANT	66	43	10	119
37	T190738546	KULKARNI HARISH BHAGWANRAO	63	35	10	108
38	T190738548	KUWAR SHRUTI RAJESH	72	38	20	130
39	T190738550	MAYKAR KIRAN KALYANRAO	43	35	12	90
40	T190738551	MEHETRE TEJAS VIJAYKUMAR	77	39	21	137
41	T190738553	MOMIN SOHEL KHAJAMAINODDIN	51	32	11	94
42	T190738554	MUKESH MANOHAR NARWADE	58	36	7	101
43	T190738555	MULLA SARFRAJ TAJUDDIN	66	28	6	100
44	T190738557	NIKALIE PRIYANK SUNIL	71	40	17	128
45	T190738559	NISARG DEVENDRA NAVALE	77	37	21	135
46	T190738560	PATIL CHETANA CHANDRAKANT	54	39	11	104
47	T190738561	PAWAR RAJANI SHANTARAM	59	36	21	116
48	T190738563	PRIYADARSHAN BHAGWAT KHAVTODE	50	35	12	97
49	T190738564	PRIYANSHI NAYAK MOTHER	76	36	20	132
50	T190738565	PURI DATTATRAY SURESH	40	36	7	83
51	T190738566	RISHABH BHAGVAN CHOUDHAR	30	38	11	79
52	T190738567	ROHAN RAM ZIL	60	39	15	114
53	T190738568	SANKET PRAVIN KAUTKAR	55	34	11	100

54	T190738569	SANKET SAHADEV JADHAV	49	28	13	90
55	T190738570	SANKLECHA PRATIK PRAVIN	69	35	11	115
56	T190738571	SATPUTE SAURABH BALIRAM	66	34	12	112
57	T190738572	SAWANT RANAJEET BAPURAO	80	36	6	122
58	T190738573	SHAIKH SAHIL SHAIKH	62	36	7	105
59	T190738574	SHAIKH ZAHEER ISMAIL	81	41	21	143
60	T190738576	SHEJVAL SAKSHI SHARAD	53	32	13	98
61	T190738577	SHEJWAL RUDRA MANDHAR	80	38	17	135
62	T190738578	SHELAKHE ISHWARI SANJAY	81	36	23	140
63	T190738580	SHETE YASH VITTHAL	73	39	19	131
64	T190738581	SHINDE PRATHAMESH SHASHIKANT	61	33	11	105
65	T190738582	SHRUTI SANDEEP BHAVSAR	67	37	21	125
66	T190738584	SOMVANSHI VIKAS PRAKASH	45	33	15	93
67	T190738585	SUMIT SURYAKANT KATKAR	70	30	20	120
68	T190738586	SYED SAIF ALI	43	32	19	94
69	T190738587	TAYADE PURVAK KAMALAKAR	46	37	20	103
70	T190738588	TEKALE SAURABH RAOSAHEB	53	37	20	110
71	T190738589	VIGHE PRADYUMNA SOPAN	60	38	19	117
72	T190738590	WAGH DNYANESHWAR BHAGWANRAO	49	33	19	101
73	T190738592	YAMGAR KARAN DNYANOBA	51	33	14	98
74	T190738593	YASHASHREE DHANRAJ BOROLE	65	35	21	119
75	T190738595	MORE ANANYA ASHOK	28	AB	AB	28
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						<b>71</b>
<b>TOTAL NO. OF STUDENTS</b>						<b>76</b>
<b>CO ATTAINMENT in %</b>						<b>93.42105263</b>
<b>ATTAINMENT LEVEL</b>						<b>3</b>

<b>Direct Assessment</b>				
<b>CO</b>	<b>Continuous Internal Evaluation (CIE) [A]</b>	<b>Semester End Evaluation (SEE) [B]</b>	<b>OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)</b>	<b>ATTAINMENT LEVEL</b>
CO1	62.67	93.42	84.19	3.00
CO2	85.33	93.42	90.99	3.00
CO3	84.00	93.42	90.59	3.00
CO4	76.00	93.42	88.19	3.00
CO5	78.67	93.42	88.99	3.00
CO6	73.33	93.42	87.39	3.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

Table1: Target vs attainment (CIE)

<b>CO</b>	<b>CIE attainment</b>	<b>Gap</b>	<b>Action Planned</b>
1	62.67		
2	85.33		
3	84.00		
4	76.00		
5	78.67		
6	73.33		

Table 2: Target vs attainment (SEE)

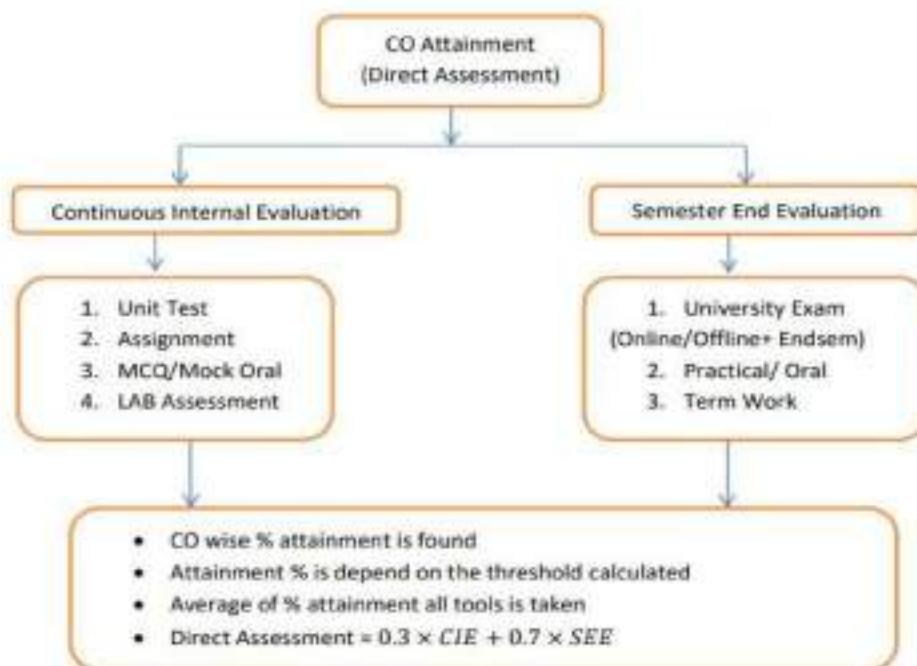
<b>CO</b>	<b>SEE attainment</b>	<b>Gap</b>	<b>Action Planned</b>
1TO6	88.99		

CO-PO MAPPING															
CO	CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02
CO1	C3641	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
CO2	C3642	3.00	3.00	3.00	3.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
CO3	C3643	3.00	3.00	3.00	3.00	1.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
CO4	C3644	3.00	3.00	3.00	3.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
CO5	C3645	1.00	1.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00
CO6	C3646	1.00	1.00	1.00	3.00	1.00	1.00	3.00	2.00	3.00	3.00	3.00	2.00	3.00	3.00
Average		2.00	2.17	2.17	3.00	1.87	1.89	2.67	2.56	2.93	2.33	3.00	2.32	1.90	1.93

CO	% CO ATTN	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8		PO9		PO10		PO11		PO12		PS01		PS02		
		Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	Map	Attn	
CO1	84.39	1.00	0.84	1.00	0.84	1.00	0.84					1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CO2	98.39	3.00	2.73	3.00	2.73							3.00	1.82	3.00	2.73	3.00	2.73			3.00	1.82			3.00	1.82	1.00	0.91	3.00	1.82	
CO3	98.39	3.00	2.72	3.00	1.81							3.00	1.81	3.00	2.72					3.00	2.72			3.00	2.72	2.00	1.81	3.00	0.91	
CO4	88.19	3.00	2.65	3.00	2.65							3.00	1.78							3.00	2.65	3.00	2.65	3.00	2.65	3.00	1.81	3.00	1.78	
CO5	88.39	1.00	0.89	3.00	1.78	3.00	1.78	1.00	2.67			3.00	1.78			2.00	1.78			2.00	1.78	1.00	0.89	3.00	2.67	3.00	2.67	3.00	2.67	
CO6	87.39	1.00	0.87	3.00	1.75							3.00	0.87			2.00	1.75			2.00	1.75	1.00	0.87	3.00	0.87	3.00	0.87	3.00	0.87	
Average		2.00	1.78	2.17	1.93	1.89	1.71	3.00	2.67			1.83	1.82	3.00	2.72	2.25	1.99			2.09	1.79			2.32	2.07	1.90	1.73	1.81	1.62	

ATTAINED POPS0 VALUES														
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02	
1.78	1.90	1.91	2.67	0.98	1.62	2.72	1.99	0.90	1.79	0.80	2.07	1.35	1.62	







**Subject: Advanced Database Management Systems**

CO	PO	LO	LO Description
CO-1	PO-1	LO-1	Advanced relational and object oriented database
CO-2	PO-1	LO-2	Query and index optimization and distributed database architectures
CO-3	PO-1	LO-3	Query the concepts of NoSQL Databases
CO-4	PO-1	LO-4	Advanced data warehouse and OLAP technologies
CO-5	PO-1	LO-5	Apply data mining algorithms and to learn various software tools
CO-6	PO-1	LO-6	Query mining and advanced data models for advanced applications

**CO-PO MAPPING**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1	1.00				1.00	1.00			1.00				1.00	1.00
CO2	1.00				1.00								1.00	1.00
CO3	1.00				1.00								1.00	1.00
CO4	1.00				1.00				1.00				1.00	1.00
CO5	1.00				1.00				1.00				1.00	1.00
CO6	1.00				1.00				1.00				1.00	1.00
<b>Average</b>	<b>2.00</b>				<b>2.00</b>				<b>2.00</b>				<b>2.00</b>	<b>2.00</b>

**Assessment Tool and Matrix**

Assessment Tool (AT)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	10	10	10	10	10	10
Lab Test	10	10	10	10	10	10

Assessment Tool (AT)	PO1	PO2	PO3	PO4	PO5	PO6
THORON	10	10	10	10	10	10
THORON	10	10	10	10	10	10
ORACL	10	10	10	10	10	10
ORACLE PRACTICAL	10	10	10	10	10	10

**ATTAINMENT LEVELS**

LEVEL 3:	More than 70% Students scoring Threshold Marks (70% to 100%)
LEVEL 2:	60% to 70% Students scoring Threshold Marks (60% to 70%)
LEVEL 1:	Less than 60% Students scoring Threshold Marks (60% to 100%)

## INTERNAL ASSESSMENT RECORD

SUBJECT: Advanced Database Management Systems

Class: TE SEM: I

Sl. No.	Roll No.	Name of Student	Assessment												Last Exam											
			CO1	CO2	CO3	CO4	CO5	CO6	CO7	CO8	CO9	CO10	CO11	CO12	CO13	CO14	CO15	CO16	CO17	CO18	CO19	CO20				
1	TK000001	ANUR BALASUBRAMANIAM	8	7	8	7	8	8	9	7	8	8	8	8	8	12	16	16	15	15	17	18				
2	TK000002	ANUP SHARMA SINGH	8	8	7	8	7	8	10	10	11	12	12	12	12	15	15	15	15	17	18	18				
3	TK000003	ANUP SUDHAKARAN	8	8	7	8	7	7	11	10	12	10	9	8	7	11	11	11	11	13	13	13				
4	TK000004	ANURAG KUMAR PANGAL	8	8	8	8	7	7	10	7	8	8	8	8	8	10	10	10	11	11	11	11				
5	TK000005	ANURAG KUMAR SURESH	8	8	7	8	7	7	9	9	9	10	10	11	11	15	15	15	15	17	17	17				
6	TK000006	ANURAG KUMAR SURESH	8	7	8	8	8	8	10	11	11	10	10	10	10	14	14	14	14	16	16	16				
7	TK000007	ANURAG KUMAR SURESH	7	8	7	8	7	7	10	9	10	9	10	10	10	12	12	12	12	14	14	14				
8	TK000008	ANURAG KUMAR SURESH	8	8	7	8	8	9	11	11	10	9	10	10	10	14	14	14	14	16	16	16				
9	TK000009	ANURAG KUMAR SURESH	8	7	7	8	8	7	9	10	10	10	10	10	10	14	14	14	14	16	16	16				
10	TK000010	ANURAG KUMAR SURESH	8	8	7	8	7	8	10	10	10	10	10	10	10	14	14	14	14	16	16	16				
11	TK000011	ANURAG KUMAR SURESH	8	8	7	8	7	8	10	10	10	10	10	10	10	14	14	14	14	16	16	16				
12	TK000012	ANURAG KUMAR SURESH	7	8	7	8	7	8	11	7	8	8	8	8	8	10	10	10	10	12	12	12				
13	TK000013	ANURAG KUMAR SURESH	8	8	7	8	7	7	11	8	9	10	10	10	10	14	14	14	14	16	16	16				
14	TK000014	ANURAG KUMAR SURESH	7	7	7	8	7	7	10	11	10	9	9	10	10	14	14	14	14	16	16	16				
15	TK000015	ANURAG KUMAR SURESH	7	7	7	8	7	8	7	10	7	10	9	9	9	12	12	12	12	14	14	14				
16	TK000016	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
17	TK000017	ANURAG KUMAR SURESH	8	8	8	8	8	10	11	10	11	9	9	9	9	14	14	14	14	16	16	16				
18	TK000018	ANURAG KUMAR SURESH	7	8	8	8	10	10	11	10	10	10	10	10	10	14	14	14	14	16	16	16				
19	TK000019	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	10	10	10	10	10	10	14	14	14	14	16	16	16				
20	TK000020	ANURAG KUMAR SURESH	8	7	8	8	8	10	10	11	10	10	10	10	10	14	14	14	14	16	16	16				
21	TK000021	ANURAG KUMAR SURESH	8	8	7	8	8	10	10	11	9	10	9	10	10	14	14	14	14	16	16	16				
22	TK000022	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
23	TK000023	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
24	TK000024	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
25	TK000025	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
26	TK000026	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
27	TK000027	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
28	TK000028	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
29	TK000029	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
30	TK000030	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
31	TK000031	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
32	TK000032	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
33	TK000033	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
34	TK000034	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
35	TK000035	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
36	TK000036	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
37	TK000037	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
38	TK000038	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
39	TK000039	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
40	TK000040	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
41	TK000041	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
42	TK000042	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
43	TK000043	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
44	TK000044	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
45	TK000045	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
46	TK000046	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
47	TK000047	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
48	TK000048	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
49	TK000049	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				
50	TK000050	ANURAG KUMAR SURESH	8	8	8	8	8	8	11	9	10	10	10	10	10	14	14	14	14	16	16	16				



**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Advanced Database Management Systems**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	ORAL / PRACTICAL	TERM WORK	CO1 TO CO6
			100	25	25	150
			10	10	10	30
1	T190738501	AMAR HAUSHIRAM KARANDE	64	15	15	94
2	T190738502	AMUP ASMITA ARJUN	56	17	17	90
3	T190738503	ANAY GAJANAN KALE	68	10	10	83
4	T190738504	ATHARVA RAKESH PANDAV	81	19	19	119
5	T190738505	BAGADE SAJAL SURENDRA	53	11	11	75
6	T190738506	BANDAL SHREYAS BHAGWANRAO	21	7	7	35
7	T190738508	BHOR VAISHALI KISAN	71	20	20	111
8	T190738509	BHOSAGE NIKITA BANDESH	64	18	18	100
9	T190738510	BHOSALE PRATIKSHA BALASAHEB	58	12	12	82
10	T190738511	BIDVE ASHISH UMESH	54	20	20	94
11	T190738512	BORAWAKE ATHARVA SANJAY	52	18	18	88
12	T190738513	CHAUDHARI ADITYA KONDIRAM	30	10	10	50
13	T190738514	CHAVAN NIRAJ BHAUSAHEB	50	10	10	70
14	T190738516	DEHADI GAURI SANJAY	74	7	7	88
15	T190738517	DEOKAR OMKAR TUKARAM	63	20	20	103
16	T190738518	DESHMANE RADHIKA MUKTESHWAR	50	11	11	72
17	T190738519	DESHMUKH ANAND RAHUL	30	10	10	50
18	T190738520	DESHMUKH OMKAR SHANTARAM	65	17	17	99
19	T190738521	DESHMUKH TEJAS DADASAHEB	51	12	12	75
20	T190738522	DHUMAL HARSH DEEPAK	61	18	18	97
21	T190738523	DIGE SHRIKANT HANUMANT	66	19	19	104
22	T190738524	EKHANDE AKSHAY DATTATRAY	48	6	6	60
23	T190738525	EKKE ROHAN KAILASNATH	AB	AB	AB	0
24	T190738526	FALEGAONKAR ASHUTOSH MADAN	67	23	23	113
25	T190738528	GAIKWAD MRUNAL SIDHARTH	45	7	7	59
26	T190738529	GAIKWAD MUKTA LAXMAN	77	22	22	121
27	T190738532	ILAG PRATHAMESH VILAS	51	10	10	71
28	T190738533	JAGTAP PRIITI SITARAM	64	17	17	98
29	T190738535	JAGTAP SHRADDHA MANSING	54	16	16	86
30	T190738537	JAIN TUSHAR NANDLAL	56	5	5	66
31	T190738538	KAMBALE KSHITIJA SUDHAKAR	47	17	17	81
32	T190738539	KAMBLE GAURAV RAMESH	49	13	13	75
33	T190738540	KAMBLE VAIBHAVI GANESH	75	22	22	119
34	T190738541	KATKAR PURVA MAHENDRA	67	21	21	109
35	T190738542	KOMAL ABAASAHEB JADHWAR	42	12	12	66
36	T190738545	KULKARNI AYUSHI PRASHANT	51	10	10	71
37	T190738546	KULKARNI HARISH BHAGWANRAO	66	10	10	86
38	T190738548	KUWAR SHRUTI RAJESH	61	20	20	101
39	T190738550	MAYKAR KIRAN KALYANRAO	24	12	12	48
40	T190738551	MEHETRE TEJAS VIJAYKUMAR	71	21	21	113
41	T190738553	MOMIN SOHEL KHAJAMAINODDIN	44	11	11	66
42	T190738554	MUKESH MANOHAR NARWADE	44	7	7	58
43	T190738555	MULLA SARFRAJ TAJUDDIN	75	6	6	87
44	T190738557	NIKALIE PRIYANK SUNIL	57	17	17	91
45	T190738559	NISARG DEVENDRA NAVALE	73	21	21	115
46	T190738560	PATIL CHETANA CHANDRAKANT	50	11	11	72
47	T190738561	PAWAR RAJANI SHANTARAM	42	21	21	84
48	T190738563	PRIYADARSHAN BHAGWAT KHAVTODE	28	12	12	52
49	T190738564	PRIYANSHI NAYAK MOTHER	55	20	20	95
50	T190738565	PURI DATTATRAY SURESH	33	7	7	47
51	T190738566	RISHABH BHAGVAN CHOUDHAR	21	11	11	43
52	T190738567	ROHAN RAM ZIL	47	15	15	77
53	T190738568	SANKET PRAVIN KAUTKAR	29	11	11	51

54	T190738569	SANKET SAHADEV JADHAV	23	13	13	49
55	T190738570	SANKLECHA PRATIK PRAVIN	67	11	11	89
56	T190738571	SATPUTE SAURABH BALIRAM	51	12	12	75
57	T190738572	SAWANT RANAJEET BAPURAO	65	6	6	77
58	T190738573	SHAIKH SAHIL SHAIKH	26	7	7	40
59	T190738574	SHAIKH ZAHEER ISMAIL	84	21	21	126
60	T190738576	SHEJVAL SAKSHI SHARAD	59	13	13	85
61	T190738577	SHEJVAL RUDRA MANDHAR	82	17	17	116
62	T190738578	SHELAKHE ISHWARI SANJAY	85	23	23	131
63	T190738580	SHETE YASH VITTHAL	64	19	19	102
64	T190738581	SHINDE PRATHAMESH SHASHIKANT	58	11	11	80
65	T190738582	SHRUTI SANDEEP BHAVSAR	56	21	21	98
66	T190738584	SOMVANSHI VIKAS PRAKASH	41	15	15	71
67	T190738585	SUMIT SURYAKANT KATKAR	73	20	20	113
68	T190738586	SYED SAIF ALI	44	19	19	82
69	T190738587	TAYADE PURVAK KAMALAKAR	40	20	20	80
70	T190738588	TEKALE SAURABH RAOSAHEB	62	20	20	102
71	T190738589	VIGHE PRADYUMNA SOPAN	49	19	19	87
72	T190738590	WAGH DNYANESHWAR BHAGWANRAO	45	19	19	83
73	T190738592	YAMGAR KARAN DNYANOBA	49	14	14	77
74	T190738593	YASHASHREE DHANRAJ BOROLE	62	21	21	104
75	T190738595	MORE ANANYA ASHOK	AB	AB	AB	0
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						44
<b>TOTAL NO. OF STUDENTS</b>						76
<b>CO ATTAINMENT in %</b>						57.89473684
<b>ATTAINMENT LEVEL</b>						2



Direct Assessment				
CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	89.33	57.89	67.33	2.00
CO2	76.00	57.89	63.33	2.00
CO3	85.33	57.89	66.13	2.00
CO4	94.67	57.89	68.93	2.00
CO5	82.67	57.89	65.33	2.00
CO6	100.00	57.89	70.53	2.00

1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks

2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)

Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	89.33		
2	76.00		
3	85.33		
4	94.67		
5	82.67		
6	100.00		

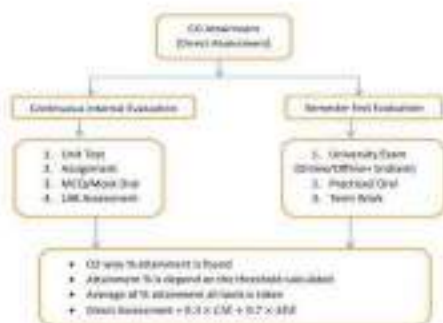
Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	65.33		

CO/PO HAPPEN																
CU	AD	DBM	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO	0.00				1.00										1.00	
CO	0.00				1.00										1.00	
CO	0.00				1.00										1.00	
CO	0.00				1.00										1.00	
CO	0.00				1.00										1.00	
CO	0.00				1.00										1.00	
CO	0.00				1.00										1.00	
Average	1.00				1.00										1.00	1.00

CO	YCO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD
CO	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD
CO	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD
CO	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD
CO	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD
CO	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD
CO	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD
CO	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD	DBM	AD
Average	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

STANDARD VALUES													
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00



**Subject: Computer Network and Security**

Sl. No.	Learning Outcome	Assessment
CO1	Know & comprehend, access, identify and present current application layer of network	
CO2	Understand network, network, and address analysis methods.	
CO3	Recognize the Active Network's MAC layer, routing protocol and tunnel protocols/protocols.	
CO4	Explain the principal concepts of network security, and implement security security (authentication, access, and confidentiality).	
CO5	Apply basic cryptographic techniques in application development.	
CO6	It is a good comprehension of the technology of cyber security, vulnerabilities & threats, network design, network design, digital security.	

**CO-PO MAPPING**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1	1	1	1	1									1	1
CO2	1	1	1	1									1	1
CO3	1	1	1	1									1	1
CO4	1	1	1	1									1	1
CO5	1	1	1	1									1	1
CO6	1	1	1	1									1	1
Average	1.00	1.00	1.00	1.00	0.0000				0.0000				1.00	1.00

**Assessment Tool and Matrix**

Internal Test (IT)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	20	20	20	20	20	20
Quiz Test	20	20	20	20	20	20

External Test (ET)	CO1	CO2	CO3	CO4	CO5	CO6
PMSE	20	20	20	20	20	20
EMSE	20	20	20	20	20	20
ORAL	20	20	20	20	20	20
THC/TC/IL	20	20	20	20	20	20
THC/TC/IL	20	20	20	20	20	20

**ATTAINMENT LEVELS**

LEVEL 3	More than 70% Students scoring Overall Marks (70%-85-100%)
LEVEL 2	60% to 70% Students scoring Overall Marks (60%-70-75%)
LEVEL 1	Less than 60% Students scoring Overall Marks (60%-50-55%)

## INTERNAL ASSESSMENT RECORD

SUBJECT: Computer Network and Security

Class: TE SEM: II

Sl. No.	Roll No.	Name of Student	Assignment										Exam Test					TOTAL						
			100		101		102		103		104		105		106		107		108		109		110	
			00	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
1	TK0000701	SHRISHRUTI RAJESH SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	TK0000702	SHRUTI SHAMBA SUDAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	TK0000703	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	TK0000704	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	TK0000705	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	TK0000706	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	TK0000707	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	TK0000708	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	TK0000709	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	TK0000710	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	TK0000711	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	TK0000712	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	TK0000713	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	TK0000714	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	TK0000715	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	TK0000716	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	TK0000717	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	TK0000718	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	TK0000719	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	TK0000720	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	TK0000721	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	TK0000722	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	TK0000723	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	TK0000724	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	TK0000725	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	TK0000726	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	TK0000727	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	TK0000728	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	TK0000729	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	TK0000730	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	TK0000731	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	TK0000732	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	TK0000733	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	TK0000734	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	TK0000735	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	TK0000736	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	TK0000737	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	TK0000738	SHRUTI SUDAN SANKAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0





**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Computer Network and Security**

Sr. No.	Roll No	Name of Student	THEORY	ORAL / PRACTICAL	TERM WORK	TOTAL
			100	25	25	150
			10	10	10	30
1	T1901038701	AMAR HALUSHIRAM KARANDE	59	20	38	117
2	T1901038702	AMUP ASMITA ARJUN	81	20	37	138
3	T1901038703	ANAY GAJANAN KALE	65	21	46	132
4	T1901038704	ATHARVA RAKESH PANDAV	78	22	29	129
5	T1901038707	BAGADE SAJAL SURENDRA	60	23	28	111
6	T1901038708	BHOR VAISHALI KISAN	65	22	29	116
7	T1901038709	BHOSAGE NIKITA BANDESH	87	23	40	150
8	T1901038710	BHOSALE PRATIKSHA BALASAHEB	51	19	27	97
9	T1901038711	BIDVE ASHISH UMESH	52	23	35	110
10	T1901038712	BORAWAKE ATHARVA SANJAY	51	23	42	116
11	T1901038713	CHALUDHARI ADITYA KONDIRAM	32	14	20	66
12	T1901038714	CHAVAN NIRAJ BHAUSAHEB	52	16	20	88
13	T1901038718	DEHADI GAURI SANJAY	74	18	25	117
14	T19010387110	DEOKAR OMKAR TUKARAM	50	22	41	113
15	T1901038718	DESHMANE RADHIKA MUKTESHWAR	49	21	28	98
16	T1901038719	DESHMUKH ANAND RAHUL	36	20	20	76
17	T1901038720	DESHMUKH OMKAR SHANTARAM	50	20	41	111
18	T1901038721	DESHMUKH TEJAS DADASAHEB	51	19	26	96
19	T1901038722	DHUMAL HARSH DEEPAK	58	19	27	104
20	T1901038723	DIGE SHRIKANT HANUMANT	76	21	28	125
21	T1901038724	EKHANDE AKSHAY DATTATRAY	46	15	27	88
22	T1901038728	FALEGAONKAR ASHUTOSH MADAN	62	23	43	128
23	T1901038728	GAIKWAD MIRUNAL SIDDHARTH	50	20	20	90
24	T1901038729	GAIKWAD MUKTA LAXMAN	87	23	37	147
25	T1901038732	ILAG PRATHAMESH VILAS	73	21	38	132
26	T1901038733	JAGTAP PRITI SITARAM	72	20	35	127
27	T1901038737	JAGTAP SHRADDHA MANSING	48	19	29	96
28	T19010387310	JAIN TUSHAR NANDLAL	54	18	23	95
29	T1901038738	KAMBALE KSHITIJA SUDHAKAR	63	20	39	122
30	T1901038739	KAMBLE GAURAV RAMESH	67	20	23	110
31	T1901038740	KAMBLE VAIBHAVI GANESH	84	22	46	152
32	T1901038741	KATKAR PURVA MAHENDRA	73	23	40	136
33	T1901038742	KOMAL ABASAHEB JADHWAR	53	21	42	116
34	T1901038744	KOTASTHANE AKASH NARAYAN	40	20	38	98
35	T1901038747	KULKARNI AYUSHI PRASHANT	57	20	38	115
36	T1901038748	KULKARNI HARISH BHAGWANRAO	56	18	20	94
37	T1901038748	KUWAR SHRUTI RAJESH	51	21	34	106
38	T1901038770	MAYKAR KIRAN KALYANRAO	42	19	27	88
39	T1901038771	MEHETRE TEJAS VIJAYKUMAR	76	23	37	136
40	T1901038773	MOMIN SOHEL KHAJAMAINOODIN	48	20	30	98
41	T1901038774	MUKESH MANOHAR NARWADE	52	19	29	100
42	T19010387710	NIKALJE PRIYANK SUNIL	55	20	35	110
43	T1901038779	NISARG DEVENDRA NAVALE	57	21	42	120
44	T1901038780	PATIL CHETANA CHANDRAKANT	56	20	39	115
45	T1901038781	PAWAR RAJANI SHANTARAM	48	23	44	115
46	T1901038783	PRIYADARSHAN BHAGWAT KHAVTODE	58	19	20	97
47	T1901038784	PRIYANSHI NAYAK MOTHER	58	19	44	121
48	T1901038787	PURI DATTATRAY SURESH	46	17	20	83
49	T1901038788	RISHABH BHAGVAN CHOUDHAR	23	19	40	82
50	T19010387810	ROHAN RAM ZIL	49	19	29	97
51	T1901038788	SANKET PRAVIN KAUTKAR	48	20	25	93
52	T1901038789	SANKET SAHADEV JADHAV	33	21	20	74
53	T19010387100	SANKLECHA PRATIK PRAVIN	60	20	36	116

54	T19010387101	SATPUTE SAURABH BALIRAM	65	20	20	105
55	T19010387102	SAWANT RANAJEET BAPURAO	78	20	21	119
56	T19010387103	SHAIKH SAHIL SHAIKH	56	18	20	94
57	T19010387104	SHAIKH ZAHEER ISMAIL	80	23	39	142
58	T19010387108	SHEJVAL SAKSHI SHARAD	69	20	25	114
59	T19010387101	SHEJWAL RUDRA MANDHAR	68	21	33	123
60	T19010387108	SHELAKH ISHWARI SANJAY	87	23	39	149
61	T1901038780	SHETE YASH VITTHAL	62	23	20	105
62	T1901038781	SHINDE PRATHAMESH SHASHIKANT	54	22	38	114
63	T1901038782	SHRUTI SANDEEP BHAVSAR	65	21	37	123
64	T1901038784	SOMVANSHI VIKAS PRAKASH	62	19	30	111
65	T1901038787	SUMIT SURYAKANT KATKAR	81	20	38	139
66	T19010387810	TAYADE PURVAK KAMALAKAR	44	17	25	86
67	T1901038788	TEKALE SAURABH RAOSAHEB	78	19	28	125
68	T1901038789	VIGHE PRADYUMNA SOPAN	70	20	20	110
69	T1901038790	WAGH DNYANESHWAR BHAGWANRAO	54	20	28	102
70	T1901038791	WAGHMARE MAYUR RAVINDRA	40	17	36	93
71	T1901038792	YAMGAR KARAN DNYANOBA	50	21	29	100
72	T1901038793	YASHASHREE DHANRAJ BOROLE	75	22	41	138
73	T1901038797	MORE ANANYA ASHOK	AB	14	AB	14
74	T1901038798	PRANALIKA MANOJ INGOLE	AB	20	AB	20
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						68
<b>TOTAL NO. OF STUDENTS</b>						74
<b>CO ATTAINMENT in %</b>						91.89189189
<b>ATTAINMENT LEVEL</b>						3



### Direct Assessment

CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	64.86	91.89	83.78	3.00
CO2	81.08	91.89	88.65	3.00
CO3	60.81	91.89	82.57	3.00
CO4	58.11	91.89	81.76	3.00
CO5	62.16	91.89	82.97	3.00
CO6	50.00	91.89	79.32	3.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

Table1: Target vs attainment (CIE)

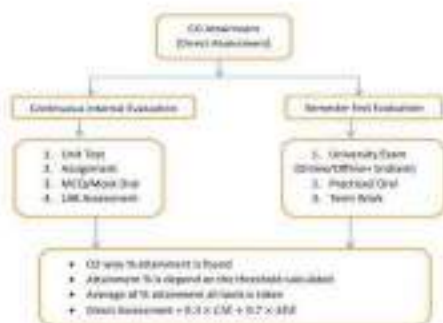
CO	CIE attainment	Gap	Action Planned
1	64.86		
2	81.08		
3	60.81		
4	58.11		
5	62.16		
6	50.00		

Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	82.97		







**Subject: Data Science and Big Data Analytics**

CO	COO	CO-PO MAPPING
CO1	To introduce basic need of Big Data and Data science to handle large amount of data.	
CO2	To understand the basic mathematics behind the Big data.	
CO3	To understand the different Big Data processing technologies.	
CO4	To understand and apply the Analytical concepts of Big Data using Python.	
CO5	To compare the Big Data using different tools.	
CO6	To understand the applications and impact of Big Data.	

CO	CO-PO MAPPING														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	
CO1	100	100	100	100	100									100	100
CO2	100	100	100	100	100									100	100
CO3	100	100	100	100	100									100	100
CO4	100	100	100	100	100									100	100
CO5	100	100	100	100	100									100	100
CO6	100	100	100	100	100									100	100
Average	100	100	100	100	100									100	100

**Assessment Tool and Matrix**

Internal Test (ICE)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	00	00	00	00	00	00
Lab Test	00	00	00	00	00	00

External Test (OEE)	CO1	CO2	CO3	CO4	CO5	CO6
ONLINE	00	00	00	00	00	00
EXERCISE	00	00	00	00	00	00
PROJECT	00	00	00	00	00	00
PRACTICAL						
TERMINAL	00	00	00	00	00	00

**ATTAINMENT LEVELS**

LEVEL 2	More than 75% Students scoring Threshold Marks (75% = A1 - 60%)
LEVEL 3	50% to 75% Students scoring Threshold Marks (50% = A1.1 - 75%)
LEVEL 4	less than 50% Students scoring Threshold Marks (50% = A1.1 - 50%)

## INTERNAL ASSESSMENT RECORD

SUBJECT: Data Science and Big Data Analytics

Class: TE SEM: II

Sl. No.	Roll No.	Name of Student	Assignment										End Test				TOTAL				
			A01		A02		A03		A04		A05		T01		T02		T03		T04		
			00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	
1	110000701	ANISH K. ANAND SANKAR	1	8	7	8	8	9	7	8	11	10	7	10	8	10	10	11	10	10	10
2	110000702	ARUN ANANTH SELVI	5	7	8	7	8	8	7	8	10	9	12	7	10	11	10	10	10	10	10
3	110000703	ARUN SANKARANARAYANAN	8	8	8	8	8	8	7	7	11	7	7	10	11	10	10	10	10	10	10
4	110000704	ARUN SANKARANARAYANAN	8	8	8	7	7	7	9	10	11	10	5	10	8	10	10	10	10	10	10
5	110000705	ARUN SANKARANARAYANAN	7	8	7	8	7	7	7	9	10	10	10	10	10	10	10	10	10	10	10
6	110000706	ARUN SANKARANARAYANAN	8	8	8	7	8	8	7	8	10	10	9	10	10	10	10	10	10	10	10
7	110000707	ARUN SANKARANARAYANAN	8	7	8	8	8	8	10	11	11	8	7	8	8	10	10	10	10	10	10
8	110000708	ARUN SANKARANARAYANAN	8	8	8	8	8	8	7	8	10	10	10	10	10	10	10	10	10	10	10
9	110000709	ARUN SANKARANARAYANAN	8	8	8	8	7	7	7	8	7	8	7	8	7	8	7	8	7	8	7
10	110000710	ARUN SANKARANARAYANAN	7	8	7	8	7	8	7	8	10	10	11	10	10	10	10	10	10	10	10
11	110000711	ARUN SANKARANARAYANAN	8	8	8	8	8	8	7	10	10	10	10	10	10	10	10	10	10	10	10
12	110000712	ARUN SANKARANARAYANAN	7	8	7	7	7	7	9	10	10	10	10	10	10	10	10	10	10	10	10
13	110000713	ARUN SANKARANARAYANAN	7	7	8	8	7	7	11	10	10	10	7	10	8	10	11	10	10	10	10
14	110000714	ARUN SANKARANARAYANAN	7	7	8	8	7	8	10	10	10	10	10	10	10	10	10	10	10	10	10
15	110000715	ARUN SANKARANARAYANAN	8	7	7	8	7	8	10	10	10	10	10	10	10	10	10	10	10	10	10
16	110000716	ARUN SANKARANARAYANAN	8	8	7	8	8	7	7	10	10	10	10	10	10	10	10	10	10	10	10
17	110000717	ARUN SANKARANARAYANAN	8	7	8	7	7	7	11	11	11	8	7	8	8	10	10	10	10	10	10
18	110000718	ARUN SANKARANARAYANAN	7	8	7	7	8	8	8	8	10	10	10	10	10	10	10	10	10	10	10
19	110000719	ARUN SANKARANARAYANAN	8	7	8	8	7	8	7	8	7	8	7	8	7	8	7	8	7	8	7
20	110000720	ARUN SANKARANARAYANAN	7	8	7	8	7	8	7	8	10	10	10	10	10	10	10	10	10	10	10
21	110000721	ARUN SANKARANARAYANAN	8	7	8	7	8	7	8	10	10	10	10	10	10	10	10	10	10	10	10
22	110000722	ARUN SANKARANARAYANAN	8	7	8	7	8	7	8	10	10	10	10	10	10	10	10	10	10	10	10
23	110000723	ARUN SANKARANARAYANAN	8	7	8	7	8	7	8	10	10	10	10	10	10	10	10	10	10	10	10
24	110000724	ARUN SANKARANARAYANAN	8	7	8	7	8	7	8	10	10	10	10	10	10	10	10	10	10	10	10
25	110000725	ARUN SANKARANARAYANAN	8	7	8	7	8	7	8	10	10	10	10	10	10	10	10	10	10	10	10
26	110000726	ARUN SANKARANARAYANAN	8	7	8	7	8	7	8	10	10	10	10	10	10	10	10	10	10	10	10
27	110000727	ARUN SANKARANARAYANAN	7	8	8	7	7	8	10	11	11	10	9	7	8	10	10	10	10	10	10
28	110000728	ARUN SANKARANARAYANAN	8	7	8	7	8	7	8	10	10	10	10	10	10	10	10	10	10	10	10
29	110000729	ARUN SANKARANARAYANAN	7	8	8	8	8	7	10	11	11	10	10	10	10	10	10	10	10	10	10
30	110000730	ARUN SANKARANARAYANAN	8	8	8	8	8	7	10	10	10	10	10	10	10	10	10	10	10	10	10
31	110000731	ARUN SANKARANARAYANAN	7	8	8	8	7	8	10	11	11	10	10	10	10	10	10	10	10	10	10
32	110000732	ARUN SANKARANARAYANAN	8	8	8	8	8	7	10	10	10	10	10	10	10	10	10	10	10	10	10
33	110000733	ARUN SANKARANARAYANAN	7	8	8	8	8	7	10	10	10	10	10	10	10	10	10	10	10	10	10
34	110000734	ARUN SANKARANARAYANAN	8	8	8	8	8	7	10	10	10	10	10	10	10	10	10	10	10	10	10
35	110000735	ARUN SANKARANARAYANAN	8	8	8	8	8	7	10	10	10	10	10	10	10	10	10	10	10	10	10
36	110000736	ARUN SANKARANARAYANAN	7	8	8	8	8	7	10	10	10	10	10	10	10	10	10	10	10	10	10
37	110000737	ARUN SANKARANARAYANAN	8	8	8	7	8	7	10	10	10	10	10	10	10	10	10	10	10	10	10
38	110000738	ARUN SANKARANARAYANAN	8	8	8	8	8	7	10	10	10	10	10	10	10	10	10	10	10	10	10



**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Data Science and Big Data Analytics**

Sr. No.	Roll No	Name of Student	THEORY	ORAL / PRACTICAL	TERM WORK	TOTAL
			100	25	25	CD1 TO CO6
			10	10	10	30
1	T1901038701	AMAR HALUSHIRAM KARANDE	55	17	15	87
2	T1901038702	AMUP ASMITA ARJUN	75	21	21	117
3	T1901038703	ANAY GAJANAN KALE	66	20	20	106
4	T1901038704	ATHARVA RAKESH PANDAV	78	20	21	119
5	T1901038707	BAGADE SAJAL SURENDRA	56	16	20	92
6	T1901038708	BHOR VAISHALI KISAN	63	19	21	103
7	T1901038709	BHOSAGE NIKITA BANDESH	78	23	23	124
8	T1901038710	BHOSALE PRATIKSHA BALASAHEB	43	18	20	81
9	T1901038711	BIDVE ASHISH UMESH	47	20	20	87
10	T1901038712	BORAWAKE ATHARVA SANJAY	44	16	18	78
11	T1901038713	CHALUDHARI ADITYA KONDIRAM	29	16	13	58
12	T1901038714	CHAVAN NIRAJ BHAUSAHEB	30	17	14	61
13	T1901038718	DEHADI GAURI SANJAY	69	17	19	105
14	T19010387110	DEOKAR OMKAR TUKARAM	53	20	22	95
15	T1901038718	DESHMANE RADHIKA MUKTESHWAR	60	21	22	103
16	T1901038719	DESHMUKH ANAND RAHUL	24	17	15	56
17	T1901038720	DESHMUKH OMKAR SHANTARAM	45	20	18	83
18	T1901038721	DESHMUKH TEJAS DADASAHEB	49	18	19	86
19	T1901038722	DHUMAL HARSH DEEPAK	60	18	17	95
20	T1901038723	DIGE SHRIKANT HANUMANT	52	17	19	88
21	T1901038724	EKHANDE AKSHAY DATTATRAY	40	15	17	72
22	T1901038728	FALEGAONKAR ASHUTOSH MADAN	47	20	21	88
23	T1901038728	GAIKWAD MIRUNAL SIDDHARTH	49	16	18	83
24	T1901038729	GAIKWAD MUKTA LAXMAN	74	22	23	119
25	T1901038732	ILAG PRATHAMESH VILAS	68	17	20	105
26	T1901038733	JAGTAP PRITI SITARAM	54	21	18	93
27	T1901038737	JAGTAP SHRADDHA MANSING	27	10	17	54
28	T19010387310	JAIN TUSHAR NANDLAL	42	16	19	77
29	T1901038738	KAMBALE KSHITIJA SUDHAKAR	55	20	20	95
30	T1901038739	KAMBLE GAURAV RAMESH	46	12	16	74
31	T1901038740	KAMBLE VAIBHAVI GANESH	76	22	23	121
32	T1901038741	KATKAR PURVA MAHENDRA	81	23	22	126
33	T1901038742	KOMAL ABASAHEB JADHWAR	60	21	17	98
34	T1901038744	KOTASTHANE AKASH NARAYAN	66	21	21	108
35	T1901038747	KULKARNI AYUSHI PRASHANT	48	19	16	83
36	T1901038748	KULKARNI HARISH BHAGWANRAO	66	10	16	92
37	T1901038748	KUWAR SHRUTI RAJESH	59	19	19	97
38	T1901038770	MAYKAR KIRAN KALYANRAO	24	15	14	53
39	T1901038771	MEHETRE TEJAS VIJAYKUMAR	75	23	23	121
40	T1901038773	MOMIN SOHEL KHAJAMAINOODIN	46	16	17	79
41	T1901038774	MUKESH MANOHAR NARWADE	60	16	17	93
42	T19010387710	NIKALJE PRIYANK SUNIL	68	19	17	104
43	T1901038779	NISARG DEVENDRA NAVALE	67	19	16	102
44	T1901038780	PATIL CHETANA CHANDRAKANT	64	17	16	97
45	T1901038781	PAWAR RAJANI SHANTARAM	68	20	23	111
46	T1901038783	PRIYADARSHAN BHAGWAT KHAVTODE	56	14	17	87
47	T1901038784	PRIYANSHI NAYAK MOTHER	67	22	19	108
48	T1901038787	PURI DATTATRAY SURESH	51	17	13	81
49	T1901038788	RISHABH BHAGVAN CHOUDHAR	42	15	13	70
50	T19010387810	ROHAN RAM ZIL	59	17	16	92
51	T1901038788	SANKET PRAVIN KAUTKAR	69	19	19	107
52	T1901038789	SANKET SAHADEV JADHAV	46	11	18	75
53	T19010387100	SANKLECHA PRATIK PRAVIN	74	17	20	111



54	T19010387101	SATPUTE SAURABH BALIRAM	61	17	16	94
55	T19010387102	SAWANT RANAJEET BAPURAO	67	16	16	99
56	T19010387103	SHAIKH SAHIL SHAIKH	61	11	14	86
57	T19010387104	SHAIKH ZAHEER ISMAIL	83	21	22	126
58	T19010387108	SHEJVAL SAKSHI SHARAD	74	17	18	109
59	T19010387101	SHEJWAL RUDRA MANDHAR	67	21	19	107
60	T19010387108	SHELAKHE ISHWARI SANJAY	77	22	23	122
61	T1901038780	SHETE YASH VITTHAL	59	18	21	98
62	T1901038781	SHINDE PRATHAMESH SHASHIKANT	57	18	17	92
63	T1901038782	SHRUTI SANDEEP BHAVSAR	56	18	14	88
64	T1901038784	SOMVANSHI VIKAS PRAKASH	57	15	15	87
65	T1901038787	SUMIT SURYAKANT KATKAR	71	18	20	109
66	T19010387810	TAYADE PURVAK KAMALAKAR	42	15	18	75
67	T1901038788	TEKALE SAURABH RAOSAHEB	76	16	19	111
68	T1901038789	VIGHE PRADYUMNA SOPAN	66	16	18	100
69	T1901038790	WAGH DNYANESHWAR BHAGWANRAO	48	17	19	84
70	T1901038791	WAGHMARE MAYUR RAVINDRA	44	14	13	71
71	T1901038792	YAMGAR KARAN DNYANOBA	47	16	17	80
72	T1901038793	YASHASHREE DHANRAJ BOROLE	69	22	22	113
73	T1901038797	MORE ANANYA ASHOK	AB	AB	12	12
74	T1901038798	PRANALIKA MANOJ INGOLE	AB	AB	12	12
						0
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						58
<b>TOTAL NO. OF STUDENTS</b>						74
<b>CO ATTAINMENT in %</b>						78.37837838
<b>ATTAINMENT LEVEL</b>						3

### Direct Assessment

CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	68.92	78.38	75.54	3.00
CO2	85.14	78.38	80.41	3.00
CO3	64.86	78.38	74.32	2.00
CO4	58.11	78.38	72.30	2.00
CO5	62.16	78.38	73.51	2.00
CO6	43.24	78.38	67.84	2.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	68.92		
2	85.14		
3	64.86		
4	58.11		
5	62.16		
6	43.24		

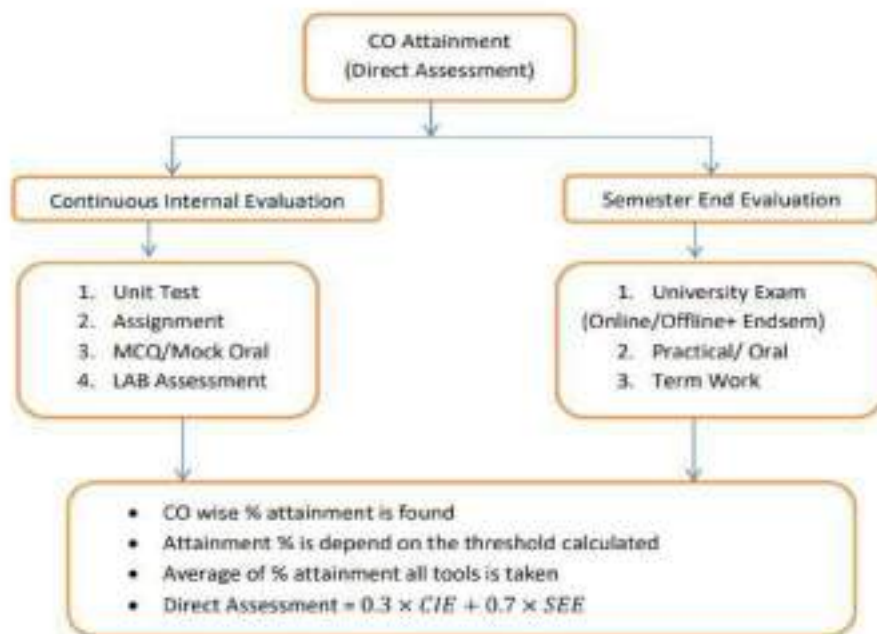
Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	73.51		

CYBER-HITPOINTS														
ID	SYMBOL	PG1	PG2	PG3	PG4	PG5	PG6	PG7	PG8	PG9	PG10	PG11	PG12	PG13
001	CS21	10	10	10	10									10
002	CS21	10	10	10	10									10
003	CS21	10	10	10	10									10
004	CS21	10	10	10	10									10
005	CS21	10	10	10	10									10
006	CS21	10	10	10	10									10
007	CS21	10	10	10	10									10
008	CS21	10	10	10	10									10
009	CS21	10	10	10	10									10
010	CS21	10	10	10	10									10
Average	207	107	108	108										147

ID	SYD	PG1	PG2	PG3	PG4	PG5	PG6	PG7	PG8	PG9	PG10	PG11	PG12	PG13	PG14	PG15
001	TLG	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
002	TLG	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
003	TLG	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
004	TLG	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
005	TLG	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
006	TLG	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
007	TLG	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
008	TLG	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
009	TLG	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
010	TLG	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Average	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147

CYBER-HITPOINTS													
PG1	PG2	PG3	PG4	PG5	PG6	PG7	PG8	PG9	PG10	PG11	PG12	PG13	PG14
107	108	108	108	108	108	108	108	108	108	108	108	108	108



Subject: Cyber Security

CO	COs	LOs/Outcome
CO1	CO1	To develop basic understanding of cyber security
CO2	CO2	Introduction among all kind types of cyber threats and cyberattacks
CO3	CO3	Identify cyber threats techniques to identify the critical activities
CO4	CO4	Apply forensic analysis tools to analyze logs and evidence for identifying compromised
CO5	CO5	Understand and identify the types of cybercriminal activity and the technological and social engineering
CO6	CO6	Understand the effectiveness of cyber security, cyber law and other countermeasures against cyberattacks

CO PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13
CO1	100	100	100	100	100	100	100	100	100	100	100	100	100
CO2	100	100	100	100	100	100	100	100	100	100	100	100	100
CO3	100	100	100	100	100	100	100	100	100	100	100	100	100
CO4	100	100	100	100	100	100	100	100	100	100	100	100	100
CO5	100	100	100	100	100	100	100	100	100	100	100	100	100
CO6	100	100	100	100	100	100	100	100	100	100	100	100	100
Average	100	100	100	100	100	100	100	100	100	100	100	100	100

Assessment Tool and Matrix

Assess Tool (CTE)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	01	01	01	01	01	01
Lab Test	01	01	01	01	01	01

Assess Tool (SEE)	CO1	CO2	CO3	CO4	CO5	CO6
ONLINE	01	01	01	01	01	01
EXERCISE	01	01	01	01	01	01
PROJECT	01	01	01	01	01	01
PRACTICAL	01	01	01	01	01	01
TERMINAL	01	01	01	01	01	01

ASSESSMENT LEVELS

LEVEL 1:	More than 75% Students scoring Threshold Marks (75%+)
LEVEL 2:	75% to 70% Students scoring Threshold Marks (75%+)
LEVEL 3:	less than 75% Students scoring Threshold Marks (75%+)







**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT: Cyber Security**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	ORAL / PRACTICAL	TERM WORK	CO1 TO CO6
			100	0	0	100
			100	0	0	100
1	T190738501	AMAR HAUSHIRAM KARANDE	59	0	0	59
2	T190738502	AMUP ASMITA ARJUN	81	0	0	81
3	T190738503	ANAY GAJANAN KALE	65	0	0	65
4	T190738504	ATHARVA RAKESH PANDAV	78	0	0	78
5	T190738505	BAGADE SAJAL SURENDRA	60	0	0	60
6	T190738508	BHOR VAISHALI KISAN	65	0	0	65
7	T190738509	BHOSAGE NIKITA BANDESH	87	0	0	87
8	T190738510	BHOSALE PRATIKSHA BALASAHEB	51	0	0	51
9	T190738511	BIDVE ASHISH UMESH	52	0	0	52
10	T190738512	BORAWAKE ATHARVA SANJAY	51	0	0	51
11	T190738513	CHAUDHARI ADITYA KONDIRAM	32	0	0	32
12	T190738514	CHAVAN NIRAJ BHAUSAHEB	52	0	0	52
13	T190738516	DEHADI GAURI SANJAY	74	0	0	74
14	T190738517	DEOKAR OMKAR TUKARAM	50	0	0	50
15	T190738518	DESHMANE RADHIKA MUKTESHWAR	49	0	0	49
16	T190738519	DESHMUKH ANAND RAHUL	36	0	0	36
17	T190738520	DESHMUKH OMKAR SHANTARAM	50	0	0	50
18	T190738521	DESHMUKH TEJAS DADASAHEB	51	0	0	51
19	T190738522	DHUMAL HARSH DEEPAK	58	0	0	58
20	T190738523	DIGE SHRIKANT HANUMANT	76	0	0	76
21	T190738524	EKHANDE AKSHAY DATTATRAY	46	0	0	46
22	T190738526	FALEGAONKAR ASHUTOSH MADAN	62	0	0	62
23	T190738528	GAIKWAD MRUNAL SIDDHARTH	50	0	0	50
24	T190738529	GAIKWAD MUKTA LAXMAN	87	0	0	87
25	T190738532	ILAG PRATHAMESH VILAS	73	0	0	73
26	T190738533	JAGTAP PRITI SITARAM	72	0	0	72
27	T190738535	JAGTAP SHRADDHA MANSING	48	0	0	48
28	T190738537	JAIN TUSHAR NANDLAL	54	0	0	54
29	T190738538	KAMBALE KSHITIJ SUDHAKAR	63	0	0	63
30	T190738539	KAMBLE GAURAV RAMESH	67	0	0	67
31	T190738540	KAMBLE VAIBHAVI GANESH	84	0	0	84
32	T190738541	KATKAR PURVA MAHENDRA	73	0	0	73
33	T190738542	KOMAL ABASAHEB JADHWAR	53	0	0	53
34	T190738544	KOTASTHANE AKASH NARAYAN	40	0	0	40
35	T190738545	KULKARNI AYUSHI PRASHANT	57	0	0	57
36	T190738546	KULKARNI HARISH BHAGWANRAO	56	0	0	56
37	T190738548	KUWAR SHRUTI RAJESH	51	0	0	51
38	T190738550	MAYKAR KIRAN KALYANRAO	42	0	0	42
39	T190738551	MEHETRE TEJAS VIJAYKUMAR	76	0	0	76
40	T190738553	MOMIN SOHEL KHAJAMAINODDIN	48	0	0	48
41	T190738554	MUKESH MANOHAR NARWADE	52	0	0	52
42	T190738557	NIKALJE PRIYANK SUNIL	55	0	0	55
43	T190738559	NISARG DEVENDRA NAVALE	57	0	0	57
44	T190738560	PATIL CHETANA CHANDRAKANT	56	0	0	56
45	T190738561	PAWAR RAJANI SHANTARAM	48	0	0	48
46	T190738563	PRIYADARSHAN BHAGWAT KHAVTODE	58	0	0	58
47	T190738564	PRIYANSHI NAYAK MOTHER	58	0	0	58
48	T190738565	PURI DATTATRAY SURESH	AB	0	0	AB
49	T190738566	RISHABH BHAGVAN CHOUDHAR	23	0	0	23
50	T190738567	ROHAN RAM ZIL	49	0	0	49
51	T190738568	SANKET PRAVIN KAUTKAR	48	0	0	48
52	T190738569	SANKET SAHADEV JADHAV	33	0	0	33
53	T190738570	SANKLECHA PRATIK PRAVIN	60	0	0	60
54	T190738571	SATPUTE SAURABH BALIRAM	65	0	0	65

55	T190738572	SAWANT RANAJEET BAPURAO	78	0	0	78
56	T190738573	SHAIKH SAHIL SHAIKH	56	0	0	56
57	T190738574	SHAIKH ZAHEER ISMAIL	80	0	0	80
58	T190738576	SHEJVAL SAKSHI SHARAD	69	0	0	69
59	T190738577	SHEJWAL RUDRA MANOHAR	69	0	0	69
60	T190738578	SHELAKH ISHWARI SANJAY	87	0	0	87
61	T190738580	SHETE YASH VITTHAL	62	0	0	62
62	T190738581	SHINDE PRATHAMESH SHASHIKANT	54	0	0	54
63	T190738582	SHRUTI SANDEEP BHAVSAR	65	0	0	65
64	T190738584	SOMVANSHI VIKAS PRAKASH	62	0	0	62
65	T190738585	SUMIT SURYAKANT KATKAR	81	0	0	81
66	T190738587	TAYADE PURVAK KAMALAKAR	44	0	0	44
67	T190738588	TEKALE SAURABH RAOSAHEB	78	0	0	78
68	T190738589	VIGHE PRADYUMNA SOPAN	70	0	0	70
69	T190738590	WAGH DNYANESHWAR BHAGWANRAO	54	0	0	54
70	T190738591	WAGHMARE MAYUR RAVINDRA	40	0	0	40
71	T190738592	YAMGAR KARAN DNYANOBA	50	0	0	50
72	T190738593	YASHASHREE DHANRAJ BOROLE	75	0	0	75
73	T190738595	MORE ANANYA ASHOK	AB	0	0	AB
74	T190738596	PRANALIKA MANOJ INGOLE	AB	0	0	AB
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						63
<b>TOTAL NO. OF STUDENTS</b>						74
<b>CO ATTAINMENT in %</b>						85.13513514
<b>ATTAINMENT LEVEL</b>						3



Direct Assessment				
CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	98.67	85.14	89.19	3.00
CO2	98.67	85.14	89.19	3.00
CO3	100.00	85.14	89.59	3.00
CO4	98.67	85.14	89.19	3.00
CO5	97.33	85.14	88.79	3.00
CO6	94.67	85.14	87.99	3.00

1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks

2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)

Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	98.67		
2	98.67		
3	100.00		
4	98.67		
5	97.33		
6	94.67		

Table 2: Target vs attainment (SEE)

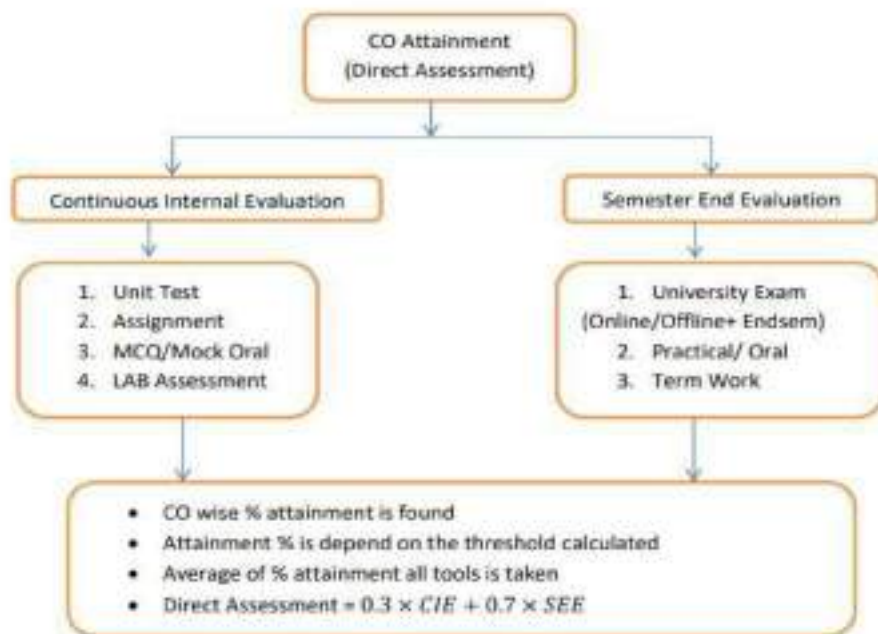
CO	SEE attainment	Gap	Action Planned
1TO6	88.79		



CO PO MAPPING															
CO	CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CD1	CD11	1.00	1.00	2.00	2.00	3.00	3.00		3.00					1.00	1.00
CD2	CD12	1.00	1.00	2.00	1.00	2.00	1.00		3.00					1.00	2.00
CD3	CD13	1.00	2.00	2.00	2.00	3.00	2.00		3.00					1.00	1.00
CD4	CD14	1.00	1.00	2.00	2.00	3.00	3.00		3.00					1.00	1.00
CD5	CD15	1.00	1.00	2.00		3.00	1.00		3.00					1.00	1.00
CD6	CD16	1.00	1.00	2.00	2.00	3.00	1.00		3.00					1.00	1.00
Average		3.00	3.33	2.67	1.67	3.00	2.67							1.00	1.67

CO	SGO	ATTN	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8		PO9		PO10		PO11		PO12		PO13		PO14	
			Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att
CD1	89.19	1.00	2.68	1.00	0.99	2.00	1.79						2.00	1.79			1.00	2.68							1.00	0.99	1.00	0.99	1.00	0.99
CD2	89.19	1.00	2.68	1.00	1.79								2.00	1.79	1.00	0.99	1.00	2.68							1.00	0.99	1.00	0.99	2.00	1.79
CD3	89.59	1.00	2.68	1.00	1.79								2.00	1.79	1.00	0.99									1.00	0.99	1.00	0.99	1.00	0.99
CD4	89.19	1.00	2.68	1.00	0.99								2.00	1.79											1.00	0.99	1.00	0.99	2.00	1.79
CD5	88.79	1.00	2.68	1.00	0.99	2.00	1.79	0.99	0.99				2.00	1.79			1.00	2.68							1.00	0.99	1.00	0.99	1.00	2.68
CD6	87.99	1.00	2.68	1.00	0.99								2.00	1.79			1.00	2.68							1.00	0.99	0.99	0.99	1.00	0.99
Average		3.00	2.67	1.33	1.34	2.00	1.78	0.99	0.99				2.00	1.78	0.99	0.99	3.00	2.66							0.99	0.99	1.00	0.99	1.67	1.48

ATTAINED POPNO VALUES													
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
2.67	1.19	1.78	0.99	0.98	1.78	0.99	2.66	0.99	0.99	0.99	0.99	0.99	1.48



Subject: Web Application Development

CO	COB	COB/DESCRIPTION
CO-1	CO1	Develop static and dynamic website using technologies like HTML, CSS, JavaScript
CO-2	CO2	Demonstrate the use of web scripting languages
CO-3	CO3	Develop web applications with Front End & Back End Technologies
CO-4	CO4	Develop mobile website using Jquery Mobile
CO-5	CO5	Develop web applications on cloud using AWS

CO-PO MAPPING															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	PO15
CO1	1.00	1.00	1.00	1.00									1.00	1.00	
CO2	1.00	1.00		1.00									1.00	1.00	
CO3	1.00	1.00		1.00									1.00	1.00	
CO4	1.00	1.00	1.00	1.00									1.00	1.00	
CO5	1.00	1.00		1.00									1.00	1.00	
CO6	1.00	1.00		1.00									1.00	1.00	
Average	1.67		1.00	1.00	0.00					0.00			1.33	1.00	

Assessment Tool and Matrix

Internal Task (IT)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	20	20	15	20	20	15
Lab Test	20	20	15	20	20	15

External Task (ET)	CO1	CO2	CO3	CO4	CO5	CO6
PROJECT	20	20	15	20	20	15
KNOWLEDGE	20	20	15	20	20	15
THEORY	20	20	15	20	20	15
PRACTICAL	20	20	15	20	20	15
TECHNICAL	20	20	15	20	20	15

ACHIEVEMENT LEVELS

LEVEL: A	More than 75% students scoring Threshold Marks (75%-A1)-100%
LEVEL: B	80% to 74% students scoring Threshold Marks (80%-A1)-75%
LEVEL: C	Less than 80% students scoring Threshold Marks (80%-A1)-50%

## INTERNAL ASSESSMENT RECORD

SUBJECT: Web Application Development

Class: TE SEM: II

Sl. No.	Roll No.	Name of Student	Assignment										End Test				TOTAL			
			A01		A02		A03		A04		A05		T01	T02	T03	T04	T05	T06		
			01	02	01	02	01	02	01	02	01	02								
1	110000701	ABHIR SONI	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
2	110000702	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
3	110000703	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
4	110000704	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
5	110000705	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
6	110000706	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
7	110000707	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
8	110000708	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
9	110000709	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
10	110000710	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
11	110000711	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
12	110000712	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
13	110000713	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
14	110000714	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
15	110000715	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
16	110000716	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
17	110000717	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
18	110000718	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
19	110000719	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
20	110000720	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
21	110000721	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
22	110000722	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
23	110000723	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
24	110000724	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
25	110000725	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
26	110000726	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
27	110000727	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
28	110000728	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
29	110000729	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
30	110000730	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
31	110000731	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
32	110000732	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
33	110000733	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
34	110000734	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
35	110000735	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
36	110000736	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
37	110000737	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
38	110000738	ADARSH KUMAR SANKAR	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		





**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT: Web Application Development**

Sr. No.	Roll No	Name of Student	THEORY	ORAL / PRACTICAL	TERM WORK	TOTAL
			100	25	25	CD1 TO CO6
			10	10	10	30
1	T1901038701	AMAR HALUSHIRAM KARANDE	64	35	17	116
2	T1901038702	AMUP ASMITA ARJUN	68	42	18	128
3	T1901038703	ANAY GAJANAN KALE	62	41	20	123
4	T1901038704	ATHARVA RAKESH PANDAV	77	45	20	142
5	T1901038707	BAGADE SAJAL SURENDRA	54	40	17	111
6	T1901038708	BHOR VAISHALI KISAN	68	44	18	130
7	T1901038709	BHOSAGE NIKITA BANDESH	70	45	24	139
8	T1901038710	BHOSALE PRATIKSHA BALASAHEB	57	42	17	116
9	T1901038711	BIDVE ASHISH UMESH	66	44	18	128
10	T1901038712	BORAWAKE ATHARVA SANJAY	53	37	13	103
11	T1901038713	CHALUDHARI ADITYA KONDIRAM	26	27	AB	53
12	T1901038714	CHAVAN NIRAJ BHAUSAHEB	40	25	10	75
13	T1901038718	DEHADI GAURI SANJAY	75	38	13	126
14	T19010387110	DEOKAR OMKAR TUKARAM	63	40	21	124
15	T1901038718	DESHMANE RADHIKA MUKTESHWAR	43	35	13	91
16	T1901038719	DESHMUKH ANAND RAHUL	12	28	15	55
17	T1901038720	DESHMUKH OMKAR SHANTARAM	52	36	17	105
18	T1901038721	DESHMUKH TEJAS DADASAHEB	66	38	16	120
19	T1901038722	DHUMAL HARSH DEEPAK	67	37	18	122
20	T1901038723	DIGE SHRIKANT HANUMANT	64	39	20	123
21	T1901038724	EKHANDE AKSHAY DATTATRAY	45	32	12	89
22	T1901038728	FALEGAONKAR ASHUTOSH MADAN	61	41	20	122
23	T1901038728	GAIKWAD MIRUNAL SIDDHARTH	50	37	13	100
24	T1901038729	GAIKWAD MUKTA LAXMAN	74	43	21	138
25	T1901038732	ILAG PRATHAMESH VILAS	64	40	19	123
26	T1901038733	JAGTAP PRITI SITARAM	61	36	12	109
27	T1901038737	JAGTAP SHRADDHA MANSING	34	37	10	81
28	T19010387310	JAIN TUSHAR NANDLAL	53	32	18	103
29	T1901038738	KAMBALE KSHITIJA SUDHAKAR	44	39	12	95
30	T1901038739	KAMBLE GAURAV RAMESH	65	35	13	113
31	T1901038740	KAMBLE VAIBHAVI GANESH	83	43	22	148
32	T1901038741	KATKAR PURVA MAHENDRA	81	42	22	145
33	T1901038742	KOMAL ABASAHEB JADHWAR	40	35	15	90
34	T1901038744	KOTASTHANE AKASH NARAYAN	60	26	15	101
35	T1901038747	KULKARNI AYUSHI PRASHANT	55	32	17	104
36	T1901038748	KULKARNI HARISH BHAGWANRAO	77	36	12	125
37	T1901038748	KUWAR SHRUTI RAJESH	61	39	12	112
38	T1901038770	MAYKAR KIRAN KALYANRAO	22	22	12	56
39	T1901038771	MEHETRE TEJAS VIJAYKUMAR	77	43	22	142
40	T1901038773	MOMIN SOHEL KHAJAMAINOODIN	54	32	14	100
41	T1901038774	MUKESH MANOHAR NARWADE	43	37	17	97
42	T19010387710	NIKALJE PRIYANK SUNIL	70	43	16	129
43	T1901038779	NISARG DEVENDRA NAVALE	79	36	17	132
44	T1901038780	PATIL CHETANA CHANDRAKANT	52	34	12	98
45	T1901038781	PAWAR RAJANI SHANTARAM	68	40	19	127
46	T1901038783	PRIYADARSHAN BHAGWAT KHAVTODE	24	33	15	72
47	T1901038784	PRIYANSHI NAYAK MOTHER	65	38	21	124
48	T1901038787	PURI DATTATRAY SURESH	42	27	10	79
49	T1901038788	RISHABH BHAGVAN CHOUDHAR	34	25	15	74
50	T19010387810	ROHAN RAM ZIL	52	32	14	98
51	T1901038788	SANKET PRAVIN KAUTKAR	44	37	17	98
52	T1901038789	SANKET SAHADEV JADHAV	40	38	10	88
53	T19010387100	SANKLECHA PRATIK PRAVIN	79	43	18	140

54	T19010387101	SATPUTE SAURABH BALIRAM	60	38	14	112
55	T19010387102	SAWANT RANAJEET BAPURAO	75	34	18	127
56	T19010387103	SHAIKH SAHIL SHAIKH	50	24	11	85
57	T19010387104	SHAIKH ZAHEER ISMAIL	75	45	24	144
58	T19010387108	SHEJVAL SAKSHI SHARAD	57	38	15	110
59	T19010387101	SHEJWAL RUDRA MANDHAR	71	39	20	130
60	T19010387108	SHELAKH ISHWARI SANJAY	91	45	24	160
61	T1901038780	SHETE YASH VITTHAL	59	39	21	119
62	T1901038781	SHINDE PRATHAMESH SHASHIKANT	63	37	14	114
63	T1901038782	SHRUTI SANDEEP BHAVSAR	44	28	16	88
64	T1901038784	SOMVANSHI VIKAS PRAKASH	48	34	10	92
65	T1901038787	SUMIT SURYAKANT KATKAR	76	40	12	128
66	T19010387810	TAYADE PURVAK KAMALAKAR	30	35	17	82
67	T1901038788	TEKALE SAURABH RAOSAHEB	64	39	15	118
68	T1901038789	VIGHE PRADYUMNA SOPAN	60	38	14	112
69	T1901038790	WAGH DNYANESHWAR BHAGWANRAO	40	40	10	90
70	T1901038791	WAGHMARE MAYUR RAVINDRA	49	26	14	89
71	T1901038792	YAMGAR KARAN DNYANOBA	45	39	11	95
72	T1901038793	YASHASHREE DHANRAJ BOROLE	63	43	18	124
73	T1901038797	MORE ANANYA ASHOK	AB	22	AB	22
74	T1901038798	PRANALIKA MANOJ INGOLE	AB	22	AB	22
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						65
<b>TOTAL NO. OF STUDENTS</b>						74
<b>CO ATTAINMENT in %</b>						87.83783784
<b>ATTAINMENT LEVEL</b>						3

Direct Assessment				
CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	60.81	87.84	79.73	3.00
CO2	77.03	87.84	84.59	3.00
CO3	71.62	87.84	82.97	3.00
CO4	59.46	87.84	79.32	3.00
CO5	63.51	87.84	80.54	3.00
CO6	43.24	87.84	74.46	2.00

1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks

2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)

Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	60.81		
2	77.03		
3	71.62		
4	59.46		
5	63.51		
6	43.24		

Table 2: Target vs attainment (SEE)

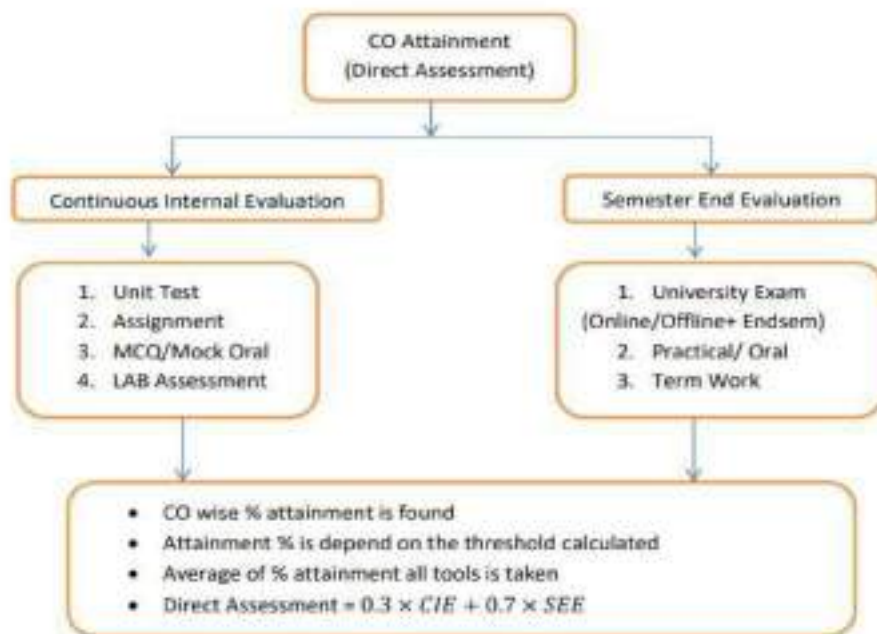
CO	SEE attainment	Gap	Action Planned
1TO6	80.54		



CO PO MAPPING															
CO	CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02
CD1	CD11	1.00	1.00	1.00	1.00									1.00	1.00
CD2	CD12	1.00	1.00		1.00									1.00	1.00
CD3	CD13	1.00	1.00		1.00									1.00	1.00
CD4	CD14	1.00	1.00	1.00	1.00									1.00	1.00
CD5	CD15	1.00	1.00		1.00									1.00	1.00
CD6	CD16	1.00	1.00		1.00									1.00	1.00
Average		2.67	1.87	2.83	2.00									1.67	2.00

CO	% CO ATTN	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8		PO9		PO10		PO11		PO12		PS01		PS02	
		Max	Attn	Max	Attn	Max	Attn	Max	Attn	Max	Attn	Max	Attn	Max	Attn	Max	Attn	Max	Attn	Max	Attn	Max	Attn	Max	Attn	Max	Attn	Max	Attn
CD1	79.73	1.00	2.35	1.00	1.29	1.00	1.75					0.00	0.00			0.00	0.00			0.00	0.00			0.00	0.00	1.00	0.88	1.00	1.00
CD2	84.59	1.00	0.95	1.00	0.55							0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	1.00	1.00	1.00	1.00
CD3	82.97	1.00	2.04	1.00	1.66							0.00	0.00	0.00	0.00					0.00	0.00			0.00	0.00	1.00	1.00	1.00	1.00
CD4	79.32	1.00	2.38	1.00	0.79							0.00	0.00			0.00	0.00			0.00	0.00			0.00	0.00	1.00	0.79	1.00	1.00
CD5	88.54	1.00	2.42	1.00	0.81	0.00	0.00	1.00	1.41			0.00	0.00			0.00	0.00			0.00	0.00			0.00	0.00	1.00	1.41	1.00	1.41
CD6	74.46	1.00	2.23	1.00	1.23							0.00	0.00			0.00	0.00			0.00	0.00			0.00	0.00	1.00	1.48	1.00	1.48
Average		2.67	2.13	1.87	1.32	1.00	0.88	2.00	1.41			0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	1.67	1.34	2.00	1.41

ATTAINED PO/PS0 VALUES															
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02		
2.13	1.32	0.88	1.41	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.34	1.41		





**Object: Software Project Management**

CO	COO	DESCRIPTION
CO1		Apply the project and methods for successful Software Project Management
CO2		Project Design and Software Project
CO3		analyze Project Schedule and calculate Risk Management with help of tools
CO4		analyze Project Schedule and calculate Risk Management with help of tools
CO5		analyze Risk Selection Process with the issues related to Risk Management
CO6		analyze and use problem solve for Software Project Management

CO PO MAPPING													
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13
CO1	100	100	100	100	100	100	100	100	100	100	100	100	100
CO2	100	100	100	100	100	100	100	100	100	100	100	100	100
CO3	100	100	100	100	100	100	100	100	100	100	100	100	100
CO4	100	100	100	100	100	100	100	100	100	100	100	100	100
CO5	100	100	100	100	100	100	100	100	100	100	100	100	100
CO6	100	100	100	100	100	100	100	100	100	100	100	100	100
Average	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00

**Assessment Tool and Matrix**

Internal Test (IC)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	01	01	01	01	01	01
Lab Test	01	01	01	01	01	01

External Test (EC)	CO1	CO2	CO3	CO4	CO5	CO6
ONLINE	01	01	01	01	01	01
EXERCISE	01	01	01	01	01	01
PROJECT	01	01	01	01	01	01
PRACTICAL						
TERMINAL	01	01	01	01	01	01

**ATTAINMENT LEVELS**

LEVEL 1:	More than 75% Students scoring 1 (excellent) Marks (80%+)
LEVEL 2:	75% to 50% Students scoring 1 (excellent) Marks (80%+)
LEVEL 3:	less than 50% Students scoring 1 (excellent) Marks (80%+)

**INTERNAL ASSESSMENT RECORD**

**SUBJECT: Software Project Management**

**Class:**

**DE**

**SEM:**

**I**

Sl. No.	Roll No.	Name of Institute	Semesters										Total		Grand Total			
			SEM I	SEM II	SEM III	SEM IV	SEM V	SEM VI	SEM VII	SEM VIII	SEM IX	SEM X	SEM XI	SEM XII				
1	BEK00001	AMBIT IYER TAPASWEE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
2	BEK00002	ALOKI DAS BANERJI SIBANJALI	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
3	BEK00003	ANAMI MOHANTY SUBANJANA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
4	BEK00004	ANUSHKA SINGH ANISHA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
5	BEK00005	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
6	BEK00006	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
7	BEK00007	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
8	BEK00008	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
9	BEK00009	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
10	BEK00010	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
11	BEK00011	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
12	BEK00012	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
13	BEK00013	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
14	BEK00014	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
15	BEK00015	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
16	BEK00016	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
17	BEK00017	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
18	BEK00018	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
19	BEK00019	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
20	BEK00020	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
21	BEK00021	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
22	BEK00022	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
23	BEK00023	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
24	BEK00024	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
25	BEK00025	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
26	BEK00026	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
27	BEK00027	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
28	BEK00028	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
29	BEK00029	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
30	BEK00030	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
31	BEK00031	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
32	BEK00032	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
33	BEK00033	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
34	BEK00034	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
35	BEK00035	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
36	BEK00036	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
37	BEK00037	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
38	BEK00038	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
39	BEK00039	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
40	BEK00040	ANUSHKA SINGH ANUSHKA	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9



**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Software Project Management**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	TERM WORK	ORAL / PRACTICAL	CO1 TO CO6
			100	0	0	100
			10	0	0	30
1	B190738501	ABHISHEK VINOD PAWSHEKAR	58			58
2	B190738502	ALKUNTE SHUBHANGI DASHRATH	65			65
3	B190738503	BANKAR AKSHAY VISHWANATH	48			48
4	B190738504	BAVALEKAR SUYASH SANTOSH	73			73
5	B190738505	BEDMUTHA BHAVIK MANOJKUMAR	63			63
6	B190738506	BHAMBRE ABHISHEK ANAND	63			63
7	B190738507	BHANGADE RUTUJA PRABHAKAR	69			69
8	B190738508	BHUJBAL SAYALI CHANDRAKANT	56			56
9	B190738509	BHUJBAL VAISHNAVI VIJAY	65			65
10	B190738510	CHAVAN SNEHAL DILIP	57			57
11	B190738511	CHORDIYA PRAJWAL SANJAY	64			64
12	B190738512	DHAMAK YASH VILAS	71			71
13	B190738513	DHAMALE SIDDHESH SHREERAM	56			56
14	B190738514	DUBALE YOGESHWARI HANUMANT	62			62
15	B190738515	DUKRE KISHOR RADHAKISAN	72			72
16	B190738516	FULPAGAR MANSI RAVI	59			59
17	B190738517	GAIKWAD AKASH KIRAN	61			61
18	B190738518	GAIKWAD JAYDIP BABURAV	60			60
19	B190738519	GAIKWAD YASH RAMESH	78			78
20	B190738520	GAVHANE RAHUL RAJEBHAU	61			61
21	B190738521	GHUGE RAVI SUBHASH	73			73
22	B190738522	HANDE RUTUJA DHANANJAY	81			81
23	B190738523	HASE VAIBHAV SUDAM	61			61
24	B190738524	HINGE VAISHNAVI SHANKAR	79			79
25	B190738525	JADHAV AKASH VISHWANATH	63			63
26	B190738526	JADHAV ANUJA DNYANESHWAR	54			54
27	B190738527	JAGTAP SATYADEEP SHAHAJI	40			40
28	B190738528	JAGTAP SIDDHARTH JITENDRA	62			62
29	B190738529	JAWAK ABHISHEK BHAUSAHEB	66			66
30	B190738530	JOGDAND DNYANESHWARI VIKRAM	76			76
31	B190738531	JOSHI PRACHI DASOPANT	75			75
32	B190738532	KALE POOJA NAVNATH	48			48
33	B190738533	KAMBLE SAURABH RAVINDRA	50			50
34	B190738534	KASHID VIKAS SANJAY	63			63
35	B190738535	KHALATE ANIKET DIPAK	71			71
36	B190738536	KHAPARE SAKSHI VINOD	71			71
37	B190738537	KORDE SHRADDHA RAM	47			47
38	B190738538	KOTASTHANE AKASH NARAYAN	32			32
39	B190738539	KUMBHAR VAIBHAV VILAS	51			51
40	B190738540	KUNTURKAR OMKAR UMAKANT	66			66
41	B190738541	LAHASE ASHUTOSH BHASKAR	40			40
42	B190738542	MHETRE AKANKSHA SHANKAR	21			21
43	B190738543	NARKHEDE SWARUPA NARENDRA	36			36
44	B190738544	NILANGE VAISHNAVI MANOJ	68			68
45	B190738545	NIRGUDE DNYANESHWAR VIJAY	54			54
46	B190738546	PARKALE SATYAM DIGAMBAR	70			70
47	B190738547	PATIL TUSHAR RAJU	65			65
48	B190738548	PAWAR AISHWARYA GUNVANT	74			74
49	B190738549	PAWAR GANESH RAJENDRA	75			75
50	B190738550	PAWAR SUDHIR PRAVIN	54			54
51	B190738551	PISAL VAIBHAV RAJABHAU	69			69



52	B190738552	POOJARI AKASH CHANDRAHASA	67		67
53	B190738553	PRATIKSHA ASHOK WAGH	63		63
54	B190738554	RAMKAR AKASH RAMESH	67		67
55	B190738555	RATHOD MANAV PRAMOD	63		63
56	B190738556	RAUT NIKITA RAJENDRA	71		71
57	B190738557	RAUT VAISHNAVI MALHARI	52		52
58	B190738558	SADANANDE SAHIL SANJAY	47		47
59	B190738559	SAKUNDE SHIVRAJ MARUTI	59		59
60	B190738560	SALUNKE JAYESH RAMESH	62		62
61	B190738561	SANDBHOR KISHOR SANDIP	53		53
62	B190738562	SANGULE VEDANT JIVANDHAR	49		49
63	B190738563	SANKET SANJAY KAWLE	59		59
64	B190738564	SHARDUL DHIRAJ KOMAL	9		9
65	B190738565	SHELAR SARVESHA SUDHIR	46		46
66	B190738566	SHRADDHA UMESH ADHAV	58		58
67	B190738567	SIRSAT KUSHAL POPAT	71		71
68	B190738568	SOMVANSHI DIVYANSH VIVEKRAO	64		64
69	B190738569	SONAWALE AJAY SAMBHAJI	69		69
70	B190738570	SONAWANE PRIYANKA KASHINATH	72		72
71	B190738571	SUDRIK AJINKYA NAVNATH	71		71
72	B190738572	SUSE NIKITA BALBHIM	74		74
73	B190738573	TAMBE SONALI MALHARI	51		51
74	B190738574	TUPKAR SURAJ KISHOR	73		73
75	B190738575	VHANKADE PIYUSHA VIJAYKUMAR	65		65
76	B190738576	VIKAS AMARJEET SINGH	65		65
77	B190738577	WAGHAMODE SANDIP DATTATRAY	57		57
78	B190738578	WAGHMARE MAYUR RAVINDRA	36		36
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>					<b>0</b>
<b>TOTAL NO. OF STUDENTS</b>					<b>78</b>
<b>CO ATTAINMENT in %</b>					<b>0</b>
<b>ATTAINMENT LEVEL</b>					<b>1</b>



Direct Assessment				
CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	60.26	0.00	18.08	1.00
CO2	53.85	0.00	16.15	1.00
CO3	79.49	0.00	23.85	1.00
CO4	82.05	0.00	24.62	1.00
CO5	65.38	0.00	19.62	1.00
CO6	76.92	0.00	23.08	1.00

1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks
2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)

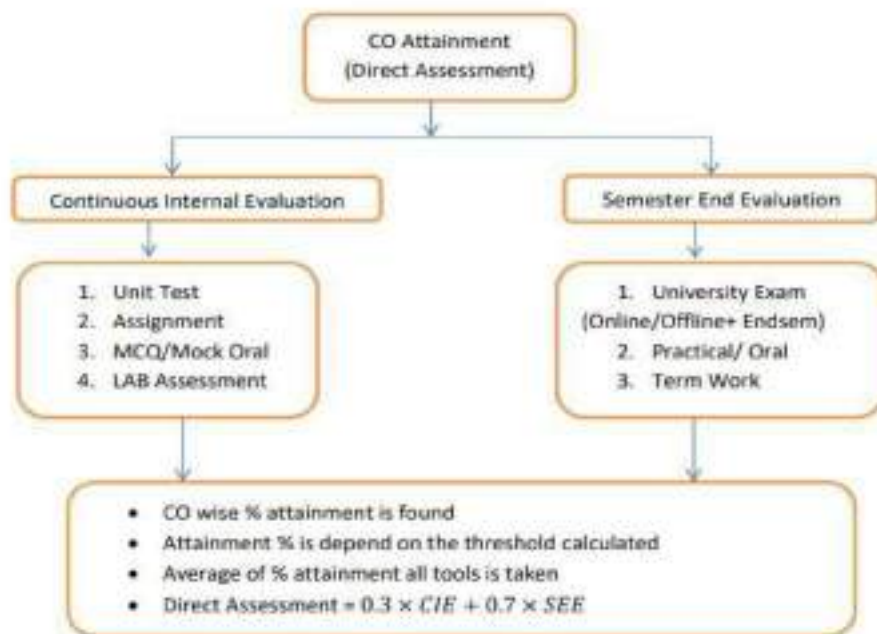
Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	60.26		
2	53.85		
3	79.49		
4	82.05		
5	65.38		
6	76.92		

Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	19.62		





**Subject: Deep Learning**

COURSE OBJECTIVES	
CO-1	Understand the theoretical foundations, algorithms, and methodologies of Deep Learning.
CO-2	Apply the concepts of Convolutional Neural Networks and neural networks, with applications.
CO-3	Compare Feed Forward Neural Networks and Recurrent Neural Networks and learn modeling the time-series using RNN and LSTM.
CO-4	Utilize generative and deep learning algorithms for Applications.
CO-5	Explain Reproduction Learning and Transfer Learning techniques using concepts of GANs and VGGNet.
CO-6	Evaluate the performance of deep learning algorithms and to provide solution for real-world application.

**COURSE MAPPING**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13
CO1	100	100	100	100	100	100	100	100	100	100	100	100	100
CO2	100	100	100	100	100	100	100	100	100	100	100	100	100
CO3	100	100	100	100	100	100	100	100	100	100	100	100	100
CO4	100	100	100	100	100	100	100	100	100	100	100	100	100
CO5	100	100	100	100	100	100	100	100	100	100	100	100	100
CO6	100	100	100	100	100	100	100	100	100	100	100	100	100
Average	100	100	100	100	100	100	100	100	100	100	100	100	100

**Assessment Tool and Matrix**

Internal Tests (IT)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	20	20	20	20	20	20
Quiz Test	20	20	20	20	20	20

External Tests (ET)	CO1	CO2	CO3	CO4	CO5	CO6
PROJECT	20	20	20	20	20	20
ENDSEM	20	20	20	20	20	20
ORAL	20	20	20	20	20	20
THAT/THAT	20	20	20	20	20	20

**ATTAINMENT LEVELS**

LEVEL 3	More than 75% Students meeting Threshold Marks (75% <= AT <= 100%)
LEVEL 2	50% to 75% Students meeting Threshold Marks (50% <= AT <= 75%)
LEVEL 1	less than 50% Students meeting Threshold Marks (50% < AT < 75%)





43	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	4	4	4	4	11	8	12	9	11	18	18	18	20	20	20
44	BEKOTKOTI	SUNIL SHARADH SHARADH	7	7	7	7	7	7	7	18	11	15	12	15	30	18	18	22	21	21
45	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	4	4	4	12	9	12	11	12	20	18	18	20	20	20	
46	BEKOTKOTI	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	9	12	18	18	30	30	17	18	18	17	
47	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	7	4	4	18	9	18	12	12	11	18	18	18	18	20	
48	BEKOTKOTI	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	11	18	9	11	18	18	18	17	20	17	
49	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	4	4	4	12	9	12	11	12	20	18	18	20	20	20	
50	BEKOTKOTI	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	9	12	18	18	30	30	17	18	18	17	
51	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	4	4	4	12	9	12	11	12	20	18	18	20	20	20	
52	BEKOTKOTI	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	9	12	18	18	30	30	17	18	18	17	
53	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	4	4	4	12	9	12	11	12	20	18	18	20	20	20	
54	BEKOTKOTI	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	9	12	18	18	30	30	17	18	18	17	
55	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	4	4	4	12	9	12	11	12	20	18	18	20	20	20	
56	BEKOTKOTI	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	9	12	18	18	30	30	17	18	18	17	
57	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	4	4	4	12	9	12	11	12	20	18	18	20	20	20	
58	BEKOTKOTI	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	9	12	18	18	30	30	17	18	18	17	
59	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	4	4	4	12	9	12	11	12	20	18	18	20	20	20	
60	BEKOTKOTI	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	9	12	18	18	30	30	17	18	18	17	
61	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	4	4	4	12	9	12	11	12	20	18	18	20	20	20	
62	BEKOTKOTI	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	9	12	18	18	30	30	17	18	18	17	
63	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	4	4	4	12	9	12	11	12	20	18	18	20	20	20	
64	BEKOTKOTI	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	9	12	18	18	30	30	17	18	18	17	
65	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	4	4	4	12	9	12	11	12	20	18	18	20	20	20	
66	BEKOTKOTI	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	9	12	18	18	30	30	17	18	18	17	
67	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	4	4	4	12	9	12	11	12	20	18	18	20	20	20	
68	BEKOTKOTI	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	9	12	18	18	30	30	17	18	18	17	
69	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	4	4	4	12	9	12	11	12	20	18	18	20	20	20	
70	BEKOTKOTI	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	9	12	18	18	30	30	17	18	18	17	
71	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	4	4	4	12	9	12	11	12	20	18	18	20	20	20	
72	BEKOTKOTI	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	9	12	18	18	30	30	17	18	18	17	
73	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	4	4	4	12	9	12	11	12	20	18	18	20	20	20	
74	BEKOTKOTI	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	9	12	18	18	30	30	17	18	18	17	
75	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	4	4	4	12	9	12	11	12	20	18	18	20	20	20	
76	BEKOTKOTI	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	9	12	18	18	30	30	17	18	18	17	
77	BEKOTKOTI	SHARADH SHARADH SHARADH	4	7	4	4	4	4	12	9	12	11	12	20	18	18	20	20	20	
78	BEKOTKOTI	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	9	12	18	18	30	30	17	18	18	17	
<b>STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>													48	56	62	68	60	60	68	
<b>TOTAL NO. OF STUDENTS</b>													<b>8</b>							
<b>ATTAINMENT % N</b>													61.8	61.8	60.8	60.8	78.3	78.3	78.3	
<b>ATTAINMENT LEVEL</b>													4	4	4	4	4	4	4	

**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Deep Learning**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	TERM WORK	ORAL / PRACTICAL	CO1 TO CO6
			100	25	25	150
			10	10	10	30
1	B190738501	ABHISHEK VINOD PAWSHEKAR	74	23	11	108
2	B190738502	ALKUNTE SHUBHANGI DASHRATH	58	21	15	94
3	B190738503	BANKAR AKSHAY VISHWANATH	59	18	14	91
4	B190738504	BAVALEKAR SUYASH SANTOSH	84	19	15	118
5	B190738505	BEDMUTHA BHAVIK MANOJKUMAR	69	20	16	105
6	B190738506	BHAMBRE ABHISHEK ANAND	76	21	10	107
7	B190738507	BHANGADE RUTUJA PRABHAKAR	65	16	5	86
8	B190738508	BHUJBAL SAYALI CHANDRAKANT	60	19	10	89
9	B190738509	BHUJBAL VAISHNAVI VIJAY	69	18	16	103
10	B190738510	CHAVAN SNEHAL DILIP	52	18	10	80
11	B190738511	CHORDIYA PRAJWAL SANJAY	76	19	15	110
12	B190738512	DHAMAK YASH VILAS	72	18	10	100
13	B190738513	DHAMALE SIDDHESH SHREERAM	52	19	15	86
14	B190738514	DUBALE YOGESHWARI HANUMANT	48	13	10	71
15	B190738515	DUKRE KISHOR RADHAKISAN	68	17	11	96
16	B190738516	FULPAGAR MANSI RAVI	56	18	4	78
17	B190738517	GAIKWAD AKASH KIRAN	65	19	10	94
18	B190738518	GAIKWAD JAYDIP BABURAV	57	15	3	75
19	B190738519	GAIKWAD YASH RAMESH	74	20	2	96
20	B190738520	GAVHANE RAHUL RAJEBHAU	60	19	12	91
21	B190738521	GHUGE RAVI SUBHASH	64	13	10	87
22	B190738522	HANDE RUTUJA DHANANJAY	80	20	12	112
23	B190738523	HASE VAIBHAV SUDAM	71	16	10	97
24	B190738524	HINGE VAISHNAVI SHANKAR	73	20	15	108
25	B190738525	JADHAV AKASH VISHWANATH	58	21	2	81
26	B190738526	JADHAV ANUJA DNYANESHWAR	45	23	10	78
27	B190738527	JAGTAP SATYADEEP SHAHAJI	40	10	1	51
28	B190738528	JAGTAP SIDDHARTH JITENDRA	49	17	11	77
29	B190738529	JAWAK ABHISHEK BHAUSAHEB	58	13	10	81
30	B190738530	JOGDAND DNYANESHWARI VIKRAM	79	19	13	111
31	B190738531	JOSHI PRACHI DASOPANT	75	19	12	106
32	B190738532	KALE POOJA NAVNATH	53	21	10	84
33	B190738533	KAMBLE SAURABH RAVINDRA	47	19	4	70
34	B190738534	KASHID VIKAS SANJAY	67	19	10	96
35	B190738535	KHALATE ANIKET DIPAK	67	22	14	103
36	B190738536	KHAPARE SAKSHI VINOD	72	20	11	103
37	B190738537	KORDE SHRADDHA RAM	62	11	10	83
38	B190738538	KOTASTHANE AKASH NARAYAN	28	10	1	39
39	B190738539	KUMBHAR VAIBHAV VILAS	70	18	3	91
40	B190738540	KUNTURKAR OMKAR UMAKANT	65	17	10	92
41	B190738541	LAHASE ASHUTOSH BHASKAR	41	12	10	63
42	B190738542	MHETRE AKANKSHA SHANKAR	33	14	12	59
43	B190738543	NARKHEDE SWARUPA NARENDRA	45	13	12	70
44	B190738544	NILANGE VAISHNAVI MANOJ	63	17	11	91
45	B190738545	NIRGUDE DNYANESHWAR VIJAY	58	12	10	80
46	B190738546	PARKALE SATYAM DIGAMBAR	75	20	2	97
47	B190738547	PATIL TUSHAR RAJU	73	19	10	102
48	B190738548	PAWAR AISHWARYA GUNVANT	67	18	15	100
49	B190738549	PAWAR GANESH RAJENDRA	78	16	10	104
50	B190738550	PAWAR SUDHIR PRAVIN	45	12	2	59
51	B190738551	PISAL VAIBHAV RAJABHAU	72	21	12	105

52	B190738552	POOJARI AKASH CHANDRAHASA	84	18	20	122
53	B190738553	PRATIKSHA ASHOK WAGH	62	18	15	95
54	B190738554	RAMKAR AKASH RAMESH	75	21	15	111
55	B190738555	RATHOD MANAV PRAMOD	66	18	17	101
56	B190738556	RAUT NIKITA RAJENDRA	76	20	10	106
57	B190738557	RAUT VAISHNAVI MALHARI	62	19	10	91
58	B190738558	SADANANDE SAHIL SANJAY	42	17	2	61
59	B190738559	SAKUNDE SHIVRAJ MARUTI	76	19	11	106
60	B190738560	SALUNKE JAYESH RAMESH	77	18	10	105
61	B190738561	SANDBHOR KISHOR SANDIP	50	19	14	83
62	B190738562	SANGULE VEDANT JIVANDHAR	53	11	10	74
63	B190738563	SANKET SANJAY KAWLE	70	13	10	93
64	B190738564	SHARDUL DHIRAJ KOMAL	30	12	5	47
65	B190738565	SHELAR SARVESHA SUDHIR	51	14	10	75
66	B190738566	SHRADDHA UMESH ADHAV	54	13	10	77
67	B190738567	SIRSAT KUSHAL POPAT	76	22	12	110
68	B190738568	SOMVANSHI DIVYANSH VIVEKRAO	57	18	12	87
69	B190738569	SONAWALE AJAY SAMBHAJI	65	17	10	92
70	B190738570	SONAWANE PRIYANKA KASHINATH	73	21	12	106
71	B190738571	SUDRIK AJINKYA NAVNATH	76	14	10	100
72	B190738572	SUSE NIKITA BALBHIM	70	18	10	98
73	B190738573	TAMBE SONALI MALHARI	59	12	4	75
74	B190738574	TUPKAR SURAJ KISHOR	68	13	18	99
75	B190738575	VHANKADE PIYUSHA VIJAYKUMAR	70	12	5	87
76	B190738576	VIKAS AMARJEET SINGH	64	18	16	98
77	B190738577	WAGHAMODE SANDIP DATTATRAY	74	19	15	108
78	B190738578	WAGHMARE MAYUR RAVINDRA	21	10	1	32
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						46
<b>TOTAL NO. OF STUDENTS</b>						78
<b>CO ATTAINMENT in %</b>						58.97435897
<b>ATTAINMENT LEVEL</b>						2



### Direct Assessment

CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	62.82	58.97	60.13	2.00
CO2	67.95	58.97	61.67	2.00
CO3	80.77	58.97	65.51	2.00
CO4	84.62	58.97	66.67	2.00
CO5	76.92	58.97	64.36	2.00
CO6	74.36	58.97	63.59	2.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

Table1: Target vs attainment (CIE)

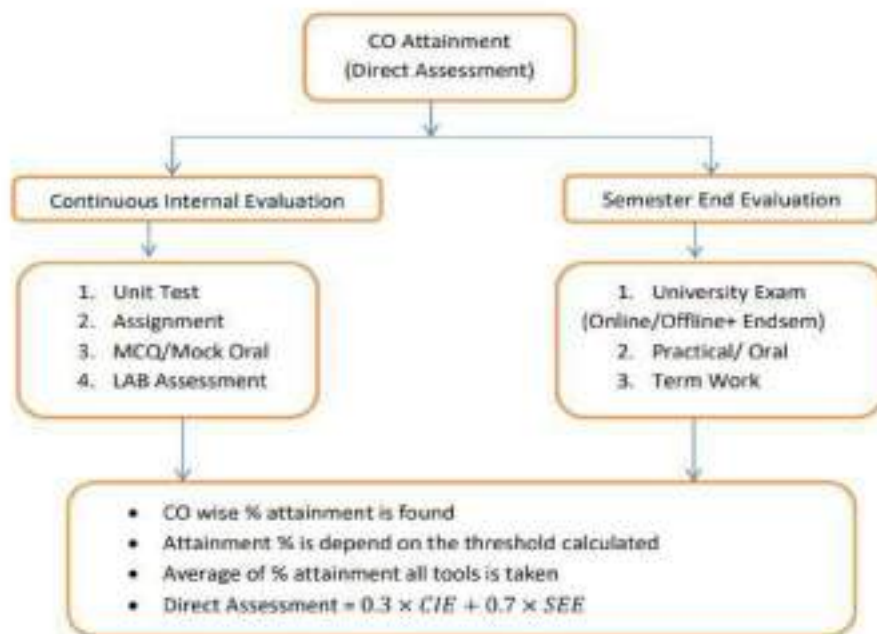
CO	CIE attainment	Gap	Action Planned
1	62.82		
2	67.95		
3	80.77		
4	84.62		
5	76.92		
6	74.36		

Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	64.36		







Enterprise Computing

CO	CO1	CO2	CO3	CO4	CO5	CO6
CO1	Understand the basic concepts of mobile computing, M2M and different computing systems.					
CO2	Understand Protocol, Transport, Application, Session, Presentation, and Data Link layers of mobile communication.					
CO3	Understand the Operation of Mobile Communication Technologies.					
CO4	Understand IP, GPRS, Network, Service Provision, Mobile Billing.					
CO5	Understand knowledge of Internet layer protocol (TCP, UDP) and different application layer protocols.					
CO6	Have knowledge of Client mobile platform, operating systems, Software Development Kit, Security Issues.					

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	
CO1	1.00				1.00	1.00	1.00	1.00					1.00	1.00	1.00
CO2	1.00		1.00	1.00	1.00	1.00	1.00	1.00					1.00	1.00	1.00
CO3	1.00		1.00	1.00	1.00	1.00	1.00						1.00	1.00	1.00
CO4	1.00	1.00	1.00		1.00	1.00							1.00	1.00	1.00
CO5	1.00	1.00	1.00		1.00	1.00							1.00	1.00	1.00
CO6	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Average	1.00	1.00	1.00	1.00	1.00	1.00	1.17	1.07	1.00	400/0	800/0	2.00	1.00	1.00	1.00

Assessment Tool and Matrix

Assess Tool (CTE)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	20	20	20	20	20	20
Lab Test	10	10	10	10	10	10

Assess Tool (SEE)	CO1	CO2	CO3	CO4	CO5	CO6
THEORY	20	20	20	20	20	20
EXERCISE	20	20	20	20	20	20
PROJECT	10	10	10	10	10	10
TERM SCORE	10	10	10	10	10	10

ATTAINMENT LEVELS

LEVEL 2	More than 75% Students scoring Threshold Marks (75%-A1 to 100%)
LEVEL 1	50% to 74% Students scoring Threshold Marks (50%-A1 to 75%)
LEVEL 0	Less than 50% Students scoring Threshold Marks (0%-A1 to 50%)

## INTERNAL ASSESSMENT RECORD

SUBJECT: Mobile Computing

Class: DE SEM: I

Sl. No.	Roll No.	Name of Student	Assignment						Unit Test			Exam						
			CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6	CO7	CO8	CO9	CO10
1	BE02021	ABHIR YASHRAJ POKHAR	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
2	BE02022	AARON SAMIRAN SIVARAJ	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
3	BE02023	ADARSH MOHIT SUNDARAR	8	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7
4	BE02024	ADARSH SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
5	BE02025	ADITHYAN SHYAM ANANDARAM	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
6	BE02026	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
7	BE02027	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	BE02028	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
9	BE02029	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
10	BE02030	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
11	BE02031	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
12	BE02032	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
13	BE02033	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
14	BE02034	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
15	BE02035	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
16	BE02036	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
17	BE02037	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
18	BE02038	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
19	BE02039	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
20	BE02040	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
21	BE02041	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
22	BE02042	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
23	BE02043	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
24	BE02044	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
25	BE02045	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
26	BE02046	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
27	BE02047	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
28	BE02048	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
29	BE02049	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
30	BE02050	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
31	BE02051	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
32	BE02052	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
33	BE02053	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
34	BE02054	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
35	BE02055	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
36	BE02056	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
37	BE02057	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
38	BE02058	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
39	BE02059	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
40	BE02060	ADITHYAN SURESH SURESH	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7



**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Mobile Computing**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	TERM WORK	ORAL / PRACTICAL	CO1 TO CO6
			100	0	0	100
			10	0	0	30
1	B190738501	ABHISHEK VINOD PAWSHEKAR	74			74
2	B190738502	ALKUNTE SHUBHANGI DASHRATH	66			66
3	B190738503	BANKAR AKSHAY VISHWANATH	65			65
4	B190738504	BAVALEKAR SUYASH SANTOSH	85			85
5	B190738505	BEDMUTHA BHAVIK MANOJKUMAR	61			61
6	B190738506	BHAMBRE ABHISHEK ANAND	82			82
7	B190738507	BHANGADE RUTUJA PRABHAKAR	64			64
8	B190738508	BHUJBAL SAYALI CHANDRAKANT	56			56
9	B190738509	BHUJBAL VAISHNAVI VIJAY	58			58
10	B190738510	CHAVAN SNEHAL DILIP	54			54
11	B190738511	CHORDIYA PRAJWAL SANJAY	67			67
12	B190738512	DHAMAK YASH VILAS	75			75
13	B190738513	DHAMALE SIDDHESH SHREERAM	60			60
14	B190738514	DUBALE YOGESHWARI HANUMANT	54			54
15	B190738515	DUKRE KISHOR RADHAKISAN	77			77
16	B190738516	FULPAGAR MANSI RAVI	52			52
17	B190738517	GAIKWAD AKASH KIRAN	66			66
18	B190738518	GAIKWAD JAYDIP BABURAV	65			65
19	B190738519	GAIKWAD YASH RAMESH	78			78
20	B190738520	GAVHANE RAHUL RAJEBHAU	72			72
21	B190738521	GHUGE RAVI SUBHASH	74			74
22	B190738522	HANDE RUTUJA DHANANJAY	76			76
23	B190738523	HASE VAIBHAV SUDAM	64			64
24	B190738524	HINGE VAISHNAVI SHANKAR	78			78
25	B190738525	JADHAV AKASH VISHWANATH	57			57
26	B190738526	JADHAV ANUJA DNYANESHWAR	52			52
27	B190738527	JAGTAP SATYADEEP SHAHAJI	36			36
28	B190738528	JAGTAP SIDDHARTH JITENDRA	51			51
29	B190738529	JAWAK ABHISHEK BHAUSAHEB	65			65
30	B190738530	JOGDAND DNYANESHWARI VIKRAM	83			83
31	B190738531	JOSHI PRACHI DASOPANT	65			65
32	B190738532	KALE POOJA NAVNATH	58			58
33	B190738533	KAMBLE SAURABH RAVINDRA	51			51
34	B190738534	KASHID VIKAS SANJAY	75			75
35	B190738535	KHALATE ANIKET DIPAK	80			80
36	B190738536	KHAPARE SAKSHI VINOD	79			79
37	B190738537	KORDE SHRADDHA RAM	48			48
38	B190738538	KOTASTHANE AKASH NARAYAN	25			25
39	B190738539	KUMBHAR VAIBHAV VILAS	55			55
40	B190738540	KUNTURKAR OMKAR UMAKANT	62			62
41	B190738541	LAHASE ASHUTOSH BHASKAR	44			44
42	B190738542	MHETRE AKANKSHA SHANKAR	43			43
43	B190738543	NARKHEDE SWARUPA NARENDRA	45			45
44	B190738544	NILANGE VAISHNAVI MANOJ	64			64
45	B190738545	NIRGUDE DNYANESHWAR VIJAY	66			66
46	B190738546	PARKALE SATYAM DIGAMBAR	81			81
47	B190738547	PATIL TUSHAR RAJU	73			73
48	B190738548	PAWAR AISHWARYA GUNVANT	73			73
49	B190738549	PAWAR GANESH RAJENDRA	86			86
50	B190738550	PAWAR SUDHIR PRAVIN	46			46
51	B190738551	PISAL VAIBHAV RAJABHAU	67			67



52	B190738552	POOJARI AKASH CHANDRAHASA	66		66
53	B190738553	PRATIKSHA ASHOK WAGH	70		70
54	B190738554	RAMKAR AKASH RAMESH	72		72
55	B190738555	RATHOD MANAV PRAMOD	58		58
56	B190738556	RAUT NIKITA RAJENDRA	75		75
57	B190738557	RAUT VAISHNAVI MALHARI	57		57
58	B190738558	SADANANDE SAHIL SANJAY	44		44
59	B190738559	SAKUNDE SHIVRAJ MARUTI	71		71
60	B190738560	SALUNKE JAYESH RAMESH	78		78
61	B190738561	SANDBHOR KISHOR SANDIP	65		65
62	B190738562	SANGULE VEDANT JIVANDHAR	53		53
63	B190738563	SANKET SANJAY KAWLE	68		68
64	B190738564	SHARDUL DHIRAJ KOMAL	21		21
65	B190738565	SHELAR SARVESHA SUDHIR	49		49
66	B190738566	SHRADDHA UMESH ADHAV	59		59
67	B190738567	SIRSAT KUSHAL POPAT	70		70
68	B190738568	SOMVANSHI DIVYANSH VIVEKRAO	64		64
69	B190738569	SONAWALE AJAY SAMBHAJI	68		68
70	B190738570	SONAWANE PRIYANKA KASHINATH	76		76
71	B190738571	SUDRIK AJINKYA NAVNATH	74		74
72	B190738572	SUSE NIKITA BALBHIM	70		70
73	B190738573	TAMBE SONALI MALHARI	54		54
74	B190738574	TUPKAR SURAJ KISHOR	55		55
75	B190738575	VHANKADE PIYUSHA VIJAYKUMAR	65		65
76	B190738576	VIKAS AMARJEET SINGH	65		65
77	B190738577	WAGHAMODE SANDIP DATTATRAY	79		79
78	B190738578	WAGHMARE MAYUR RAVINDRA	32		32
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>					50
<b>TOTAL NO. OF STUDENTS</b>					78
<b>CO ATTAINMENT in %</b>					64.1025641
<b>ATTAINMENT LEVEL</b>					2

### Direct Assessment

CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	89.74	64.10	71.79	2.00
CO2	93.59	64.10	72.95	2.00
CO3	100.00	64.10	74.87	2.00
CO4	94.87	64.10	73.33	2.00
CO5	98.72	64.10	74.49	2.00
CO6	94.87	64.10	73.33	2.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	89.74		
2	93.59		
3	100.00		
4	94.87		
5	98.72		
6	94.87		

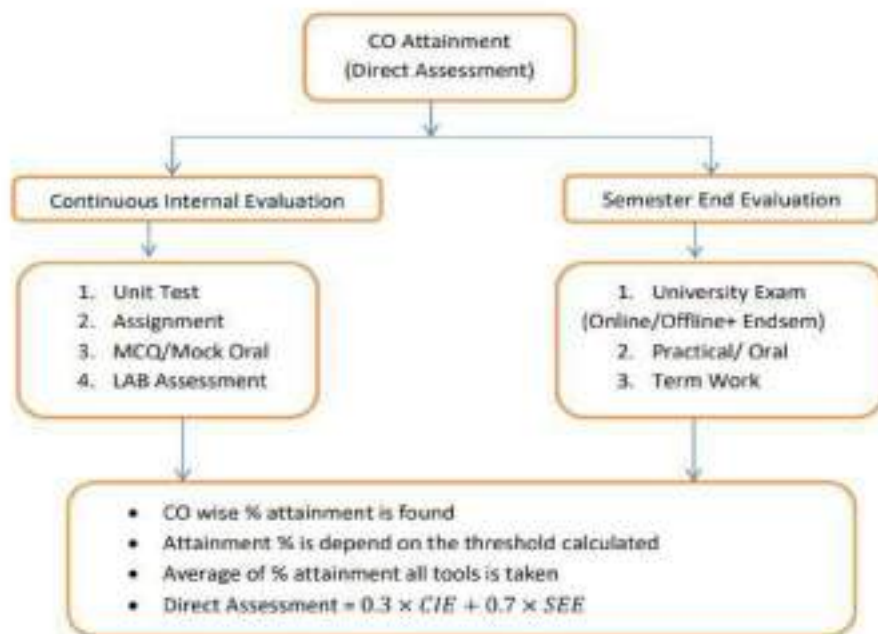
Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	74.49		

CO PO MAPPING															
CO	CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CD1	C001	1.00				1.00	1.00	1.00	1.00				1.00	1.00	1.00
CD2	C002	1.00		1.00	1.00	1.00	1.00	1.00						1.00	1.00
CD3	C003	1.00		1.00		1.00	1.00							1.00	1.00
CD4	C004	1.00	1.00	1.00		1.00	1.00							1.00	1.00
CD5	C005	1.00	1.00	1.00		1.00	1.00							1.00	1.00
CD6	C006	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					1.00	1.00
Average		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					1.00	1.00

CO	SGO ATTN	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8		PO9		PO10		PO11		PO12		PO13		PO14		
		Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	
CD1	71.79	1.00	2.15			1.00	0.79					1.00	1.44			1.00	1.00							1.00	1.44	1.00	1.44	1.00	0.79	
CD2	72.95	1.00	2.15									1.00	1.44	1.00	2.15										1.00	1.44	1.00	1.44	1.00	0.79
CD3	74.87	1.00	2.25									1.00	1.50												1.00	1.50	1.00	1.50	1.00	1.25
CD4	73.33	1.00	2.25	1.00	1.25							1.00	1.47											1.00	1.47	1.00	1.47	1.00	1.25	
CD5	74.49	1.00	2.23	1.00	1.23	1.00	0.79					1.00	1.48											1.00	1.48	1.00	1.48	1.00	0.79	
CD6	73.33	1.00	2.23	1.00	1.23							1.00	1.29			1.00	0.79							1.00	1.29	1.00	1.29	1.00	1.23	
Average		1.00	2.20	1.00	1.23	0.50	0.37					1.00	1.59	1.00	1.44	1.00	1.00							1.00	1.45	1.00	1.45	1.00	1.47	

ATTAINED POPNO VALUES														
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	
2.28	2.21	0.77	0.69	0.68	1.59	0.80	1.08	0.08	0.08	0.08	0.08	1.85	1.84	1.47



**Applied Information Storage and Systems**

Sl. No.	Learning Outcome
LO1	Understand the concept of information retrieval and to apply clustering in information retrieval.
LO2	Use an indexing approach to the retrieval of text and multimedia data.
LO3	Calculate performance of information retrieval system.
LO4	Apply the concepts of multi-media and distributed information retrieval.
LO5	Use appropriate tools in analyzing the web architecture.
LO6	Describe the working of search engine and recommendation system.

**COURSE MAPPING**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CO2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CO3	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CO4	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CO5	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CO6	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Assessment Test and Matrix**

Internal Test (IT)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	10	10	10	10	10	10
Unit Test	10	10	10	10	10	10

External Test (ET)	CO1	CO2	CO3	CO4	CO5	CO6
PO1-10	10	10	10	10	10	10
PO11-14	10	10	10	10	10	10
PO15-17	10	10	10	10	10	10
TERMINAL	10	10	10	10	10	10
TERM WORK	10	10	10	10	10	10

**ATTAINMENT LEVELS**

LEVEL 3	More than 70% students scoring Threshold Marks (70% - 80%)
LEVEL 2	More than 50% students scoring Threshold Marks (50% - 69%)
LEVEL 1	More than 30% students scoring Threshold Marks (30% - 49%)



**INTERNAL ASSESSMENT RECORD**

**SUBJECT: Information Storage and Retrieval**

Class: **DE SEM: I**

Sl. No.	Roll No.	Name of Student	Assignment					Unit Test				Exam								
			CO1	CO2	CO3	CO4	CO5	CO1	CO2	CO3	CO4	CO1	CO2	CO3	CO4					
1	BCR0001	ABHIR YASHRAJ KOSHIR	7	7	7	7	7	7	7	7	7	7	7	7	7					
2	BCR0002	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	7	10	11	9	9	16	16	16	16	17	17
3	BCR0003	ADARSH SHAMSHAD KHANNA	8	7	8	7	7	8	10	11	8	11	10	17	16	16	17	16	17	17
4	BCR0004	ADARSH SHAMSHAD KHANNA	8	7	7	8	7	8	8	9	10	11	11	9	17	16	17	16	16	17
5	BCR0005	ADARSH SHAMSHAD KHANNA	7	7	7	8	7	7	8	8	9	12	10	9	16	17	16	16	16	16
6	BCR0006	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	9	10	11	11	9	16	16	16	16	16	16
7	BCR0007	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
8	BCR0008	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
9	BCR0009	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
10	BCR0010	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
11	BCR0011	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
12	BCR0012	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
13	BCR0013	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
14	BCR0014	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
15	BCR0015	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
16	BCR0016	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
17	BCR0017	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
18	BCR0018	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
19	BCR0019	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
20	BCR0020	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
21	BCR0021	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
22	BCR0022	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
23	BCR0023	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
24	BCR0024	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
25	BCR0025	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
26	BCR0026	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
27	BCR0027	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
28	BCR0028	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
29	BCR0029	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
30	BCR0030	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
31	BCR0031	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
32	BCR0032	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
33	BCR0033	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
34	BCR0034	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
35	BCR0035	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
36	BCR0036	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
37	BCR0037	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
38	BCR0038	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
39	BCR0039	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16
40	BCR0040	ADARSH SHAMSHAD KHANNA	8	7	8	7	8	8	8	10	11	11	11	9	16	16	16	16	16	16

43	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	11	8	12	9	11	18	18	18	20	20	20
44	BEKOTKOT	SUNIL SHARADH SHARADH	7	7	7	7	7	7	7	10	11	12	12	12	20	18	18	22	21	21
45	BEKOTKOT	MAHA SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
46	BEKOTKOT	SHRUTI SHARADH SHARADH	7	7	7	7	7	7	7	9	12	18	18	20	20	17	18	19	18	17
47	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	7	4	4	7	9	10	12	12	11	18	18	18	18	20	20
48	BEKOTKOT	SHARADH SHARADH SHARADH	7	7	7	7	7	7	7	11	10	9	11	10	20	18	17	20	17	20
49	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
50	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
51	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
52	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
53	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
54	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
55	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
56	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
57	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
58	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
59	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
60	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
61	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
62	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
63	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
64	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
65	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
66	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
67	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
68	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
69	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
70	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
71	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
72	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
73	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
74	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
75	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
76	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
77	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
78	BEKOTKOT	SHARADH SHARADH SHARADH	4	7	4	4	4	4	7	9	10	12	11	12	20	18	18	20	20	20
<b>STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>														46	46	75	78	80	81	
<b>TOTAL NO. OF STUDENTS</b>														<b>8</b>						
<b>ATTAINMENT % N</b>														61.1	66.1	61.4	64.1	66.1	61.1	
<b>ATTAINMENT LEVEL</b>														4	4	4	4	4	4	

**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Information Storage and Retrieval**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	TERM WORK	ORAL / PRACTICAL	CO1 TO CO6
			100	25	25	150
			10	10	10	30
1	B190738501	ABHISHEK VINOD PAWSHEKAR	68	24	24	116
2	B190738502	ALKUNTE SHUBHANGI DASHRATH	64	21	19	104
3	B190738503	BANKAR AKSHAY VISHWANATH	67	21	20	108
4	B190738504	BAVALEKAR SUYASH SANTOSH	80	22	23	125
5	B190738505	BEDMUTHA BHAVIK MANOJKUMAR	69	23	20	112
6	B190738506	BHAMBRE ABHISHEK ANAND	71	23	21	115
7	B190738507	BHANGADE RUTUJA PRABHAKAR	70	19	18	107
8	B190738508	BHUJBAL SAYALI CHANDRAKANT	63	20	20	103
9	B190738509	BHUJBAL VAISHNAVI VIJAY	70	21	20	111
10	B190738510	CHAVAN SNEHAL DILIP	62	21	18	101
11	B190738511	CHORDIYA PRAJWAL SANJAY	68	22	22	112
12	B190738512	DHAMAK YASH VILAS	77	21	20	118
13	B190738513	DHAMALE SIDDHESH SHREERAM	64	22	20	106
14	B190738514	DUBALE YOGESHWARI HANUMANT	60	20	18	98
15	B190738515	DUKRE KISHOR RADHAKISAN	81	20	19	120
16	B190738516	FULPAGAR MANSI RAVI	65	21	19	105
17	B190738517	GAIKWAD AKASH KIRAN	77	22	20	119
18	B190738518	GAIKWAD JAYDIP BABURAV	57	18	17	92
19	B190738519	GAIKWAD YASH RAMESH	77	22	21	120
20	B190738520	GAVHANE RAHUL RAJEBHAU	58	19	18	95
21	B190738521	GHUGE RAVI SUBHASH	76	20	20	116
22	B190738522	HANDE RUTUJA DHANANJAY	78	23	22	123
23	B190738523	HASE VAIBHAV SUDAM	71	23	22	116
24	B190738524	HINGE VAISHNAVI SHANKAR	77	23	23	123
25	B190738525	JADHAV AKASH VISHWANATH	62	22	22	106
26	B190738526	JADHAV ANUJA DNYANESHWAR	56	23	23	102
27	B190738527	JAGTAP SATYADEEP SHAHAJI	46	16	14	76
28	B190738528	JAGTAP SIDDHARTH JITENDRA	60	18	17	95
29	B190738529	JAWAK ABHISHEK BHAUSAHEB	67	22	20	109
30	B190738530	JOGDAND DNYANESHWARI VIKRAM	74	22	23	119
31	B190738531	JOSHI PRACHI DASOPANT	72	21	20	113
32	B190738532	KALE POOJA NAVNATH	57	23	24	104
33	B190738533	KAMBLE SAURABH RAVINDRA	53	22	20	95
34	B190738534	KASHID VIKAS SANJAY	69	23	21	113
35	B190738535	KHALATE ANIKET DIPAK	75	23	21	119
36	B190738536	KHAPARE SAKSHI VINOD	67	22	20	109
37	B190738537	KORDE SHRADDHA RAM	29	20	19	68
38	B190738538	KOTASTHANE AKASH NARAYAN	25	19	18	62
39	B190738539	KUMBHAR VAIBHAV VILAS	53	21	20	94
40	B190738540	KUNTURKAR OMKAR UMAKANT	73	21	21	115
41	B190738541	LAHASE ASHUTOSH BHASKAR	44	23	22	89
42	B190738542	MHETRE AKANKSHA SHANKAR	40	22	20	82
43	B190738543	NARKHEDE SWARUPA NARENDRA	47	22	20	89
44	B190738544	NILANGE VAISHNAVI MANOJ	56	21	20	97
45	B190738545	NIRGUDE DNYANESHWAR VIJAY	77	22	21	120
46	B190738546	PARKALE SATYAM DIGAMBAR	84	21	18	123
47	B190738547	PATIL TUSHAR RAJU	80	23	23	126
48	B190738548	PAWAR AISHWARYA GUNVANT	71	23	20	114
49	B190738549	PAWAR GANESH RAJENDRA	85	22	15	122
50	B190738550	PAWAR SUDHIR PRAVIN	33	20	14	67
51	B190738551	PISAL VAIBHAV RAJABHAU	72	22	24	118



52	B190738552	POOJARI AKASH CHANDRAHASA	71	21	22	114
53	B190738553	PRATIKSHA ASHOK WAGH	70	22	19	111
54	B190738554	RAMKAR AKASH RAMESH	70	23	23	116
55	B190738555	RATHOD MANAV PRAMOD	69	22	20	111
56	B190738556	RAUT NIKITA RAJENDRA	83	22	21	126
57	B190738557	RAUT VAISHNAVI MALHARI	64	21	20	105
58	B190738558	SADANANDE SAHIL SANJAY	47	21	21	89
59	B190738559	SAKUNDE SHIVRAJ MARUTI	77	22	22	121
60	B190738560	SALUNKE JAYESH RAMESH	75	23	21	119
61	B190738561	SANDBHOR KISHOR SANDIP	68	20	20	108
62	B190738562	SANGULE VEDANT JIVANDHAR	59	20	19	98
63	B190738563	SANKET SANJAY KAWLE	65	22	23	110
64	B190738564	SHARDUL DHIRAJ KOMAL	24	14	15	53
65	B190738565	SHELAR SARVESHA SUDHIR	62	20	20	102
66	B190738566	SHRADDHA UMESH ADHAV	76	16	15	107
67	B190738567	SIRSAT KUSHAL POPAT	81	24	24	129
68	B190738568	SOMVANSHI DIVYANSH VIVEKRAO	56	23	23	102
69	B190738569	SONAWALE AJAY SAMBHAJI	72	20	19	111
70	B190738570	SONAWANE PRIYANKA KASHINATH	78	23	24	125
71	B190738571	SUDRIK AJINKYA NAVNATH	71	18	19	108
72	B190738572	SUSE NIKITA BALBHIM	77	21	20	118
73	B190738573	TAMBE SONALI MALHARI	52	21	18	91
74	B190738574	TUPKAR SURAJ KISHOR	63	21	20	104
75	B190738575	VHANKADE PIYUSHA VIJAYKUMAR	69	19	18	106
76	B190738576	VIKAS AMARJEET SINGH	70	21	20	111
77	B190738577	WAGHAMODE SANDIP DATTATRAY	75	21	20	116
78	B190738578	WAGHMARE MAYUR RAVINDRA	31	14	12	57
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						68
<b>TOTAL NO. OF STUDENTS</b>						78
<b>CO ATTAINMENT in %</b>						87.17948718
<b>ATTAINMENT LEVEL</b>						3

### Direct Assessment

CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	87.18	87.18	87.18	3.00
CO2	88.46	87.18	87.56	3.00
CO3	93.59	87.18	89.10	3.00
CO4	94.87	87.18	89.49	3.00
CO5	88.46	87.18	87.56	3.00
CO6	89.74	87.18	87.95	3.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

Table1: Target vs attainment (CIE)

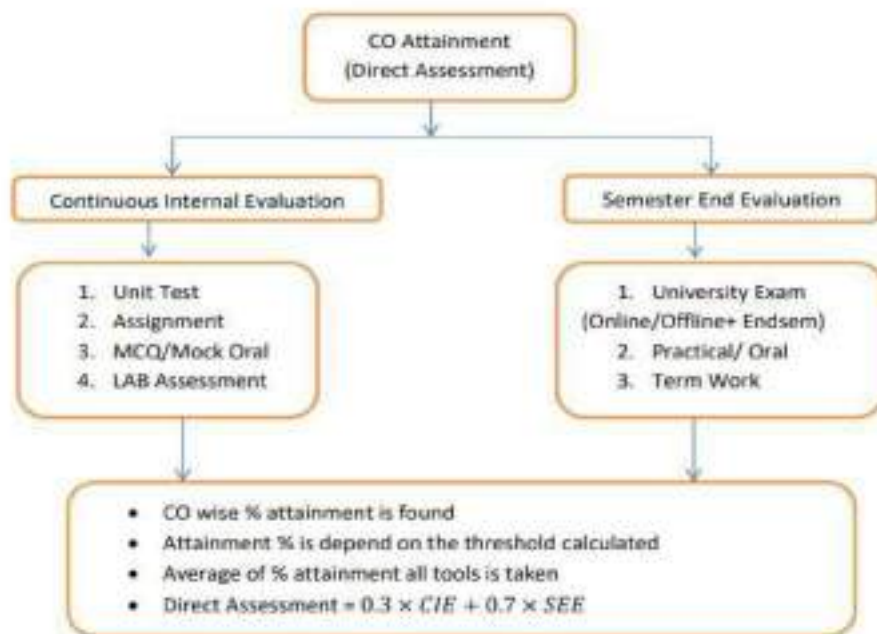
CO	CIE attainment	Gap	Action Planned
1	87.18		
2	88.46		
3	93.59		
4	94.87		
5	88.46		
6	89.74		

Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	87.56		







Object: Software Project Management

CO	COO	COO0000000
CO1	Apply the project and methods for successful Software Project Management	
CO2	Plan Design and Software Project	
CO3	analyze Project Schedule and estimate Risk Management with help of tools	
CO4	analyze Project Schedule and estimate Risk Management with help of tools	
CO5	analyze Risk Selection Process with the issues related to Risk Management	
CO6	analyze and use problem solving for Software Project Management	

CO PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	PO15
CO1	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
CO2	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
CO3	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
CO4	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
CO5	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
CO6	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Average	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Assessment Tool and Matrix

Internal Test (IE)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	01	01	01	01	01	01
Lab Test	01	01	01	01	01	01

External Test (EE)	CO1	CO2	CO3	CO4	CO5	CO6
OSSEM	01	01	01	01	01	01
EXSEM	01	01	01	01	01	01
PROJ	01	01	01	01	01	01
PRACTICAL	01	01	01	01	01	01
TERMINAL	01	01	01	01	01	01

ATTAINMENT LEVELS

LEVEL 1:	More than 75% Students meeting Threshold Marks (75%+ALL COs)
LEVEL 2:	75% to 79% Students meeting Threshold Marks (75%+ALL COs)
LEVEL 3:	less than 75% Students meeting Threshold Marks (75%+ALL COs)

**INTERNAL ASSESSMENT RECORD**

**SUBJECT: Software Project Management**

**Class:**

**DE**

**SEM:**

**I**

Sl. No.	Roll No.	Name of Institute	Assignments										Lab Test			TOTAL				
			CO1	CO2	CO3	CO4	CO5	CO6	CO7	CO8	CO9	CO10	CO11	CO12	CO13	CO14	CO15	CO16	CO17	CO18
1	BCR0001	AMBIT YASHI INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
2	BCR0002	ALOKI (M) INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
3	BCR0003	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
4	BCR0004	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
5	BCR0005	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
6	BCR0006	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
7	BCR0007	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
8	BCR0008	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
9	BCR0009	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
10	BCR0010	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
11	BCR0011	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
12	BCR0012	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
13	BCR0013	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
14	BCR0014	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
15	BCR0015	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
16	BCR0016	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
17	BCR0017	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
18	BCR0018	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
19	BCR0019	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
20	BCR0020	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
21	BCR0021	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
22	BCR0022	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
23	BCR0023	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
24	BCR0024	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
25	BCR0025	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
26	BCR0026	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
27	BCR0027	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
28	BCR0028	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
29	BCR0029	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
30	BCR0030	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
31	BCR0031	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
32	BCR0032	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
33	BCR0033	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
34	BCR0034	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
35	BCR0035	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
36	BCR0036	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
37	BCR0037	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
38	BCR0038	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
39	BCR0039	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
40	BCR0040	ANAND INSTITUTE	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9





**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Software Project Management**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	TERM WORK	ORAL / PRACTICAL	CO1 TO CO6
			100	0	0	100
			10	0	0	30
1	B190738501	ABHISHEK VINOD PAWSHEKAR	58			58
2	B190738502	ALKUNTE SHUBHANGI DASHRATH	65			65
3	B190738503	BANKAR AKSHAY VISHWANATH	48			48
4	B190738504	BAVALEKAR SUYASH SANTOSH	73			73
5	B190738505	BEDMUTHA BHAVIK MANOJKUMAR	63			63
6	B190738506	BHAMBRE ABHISHEK ANAND	63			63
7	B190738507	BHANGADE RUTUJA PRABHAKAR	69			69
8	B190738508	BHUJBAL SAYALI CHANDRAKANT	56			56
9	B190738509	BHUJBAL VAISHNAVI VIJAY	65			65
10	B190738510	CHAVAN SNEHAL DILIP	57			57
11	B190738511	CHORDIYA PRAJWAL SANJAY	64			64
12	B190738512	DHAMAK YASH VILAS	71			71
13	B190738513	DHAMALE SIDDHESH SHREERAM	56			56
14	B190738514	DUBALE YOGESHWARI HANUMANT	62			62
15	B190738515	DUKRE KISHOR RADHAKISAN	72			72
16	B190738516	FULPAGAR MANSI RAVI	59			59
17	B190738517	GAIKWAD AKASH KIRAN	61			61
18	B190738518	GAIKWAD JAYDIP BABURAV	60			60
19	B190738519	GAIKWAD YASH RAMESH	78			78
20	B190738520	GAVHANE RAHUL RAJEBHAU	61			61
21	B190738521	GHUGE RAVI SUBHASH	73			73
22	B190738522	HANDE RUTUJA DHANANJAY	81			81
23	B190738523	HASE VAIBHAV SUDAM	61			61
24	B190738524	HINGE VAISHNAVI SHANKAR	79			79
25	B190738525	JADHAV AKASH VISHWANATH	63			63
26	B190738526	JADHAV ANUJA DNYANESHWAR	54			54
27	B190738527	JAGTAP SATYADEEP SHAHAJI	40			40
28	B190738528	JAGTAP SIDDHARTH JITENDRA	62			62
29	B190738529	JAWAK ABHISHEK BHAUSAHEB	66			66
30	B190738530	JOGDAND DNYANESHWARI VIKRAM	76			76
31	B190738531	JOSHI PRACHI DASOPANT	75			75
32	B190738532	KALE POOJA NAVNATH	48			48
33	B190738533	KAMBLE SAURABH RAVINDRA	50			50
34	B190738534	KASHID VIKAS SANJAY	63			63
35	B190738535	KHALATE ANIKET DIPAK	71			71
36	B190738536	KHAPARE SAKSHI VINOD	71			71
37	B190738537	KORDE SHRADDHA RAM	47			47
38	B190738538	KOTASTHANE AKASH NARAYAN	32			32
39	B190738539	KUMBHAR VAIBHAV VILAS	51			51
40	B190738540	KUNTURKAR OMKAR UMAKANT	66			66
41	B190738541	LAHASE ASHUTOSH BHASKAR	40			40
42	B190738542	MHETRE AKANKSHA SHANKAR	21			21
43	B190738543	NARKHEDE SWARUPA NARENDRA	36			36
44	B190738544	NILANGE VAISHNAVI MANOJ	68			68
45	B190738545	NIRGUDE DNYANESHWAR VIJAY	54			54
46	B190738546	PARKALE SATYAM DIGAMBAR	70			70
47	B190738547	PATIL TUSHAR RAJU	65			65
48	B190738548	PAWAR AISHWARYA GUNVANT	74			74
49	B190738549	PAWAR GANESH RAJENDRA	75			75
50	B190738550	PAWAR SUDHIR PRAVIN	54			54
51	B190738551	PISAL VAIBHAV RAJABHAU	69			69

52	B190738552	POOJARI AKASH CHANDRAHASA	67		67
53	B190738553	PRATIKSHA ASHOK WAGH	63		63
54	B190738554	RAMKAR AKASH RAMESH	67		67
55	B190738555	RATHOD MANAV PRAMOD	63		63
56	B190738556	RAUT NIKITA RAJENDRA	71		71
57	B190738557	RAUT VAISHNAVI MALHARI	52		52
58	B190738558	SADANANDE SAHIL SANJAY	47		47
59	B190738559	SAKUNDE SHIVRAJ MARUTI	59		59
60	B190738560	SALUNKE JAYESH RAMESH	62		62
61	B190738561	SANDBHOR KISHOR SANDIP	53		53
62	B190738562	SANGULE VEDANT JIVANDHAR	49		49
63	B190738563	SANKET SANJAY KAWLE	59		59
64	B190738564	SHARDUL DHIRAJ KOMAL	9		9
65	B190738565	SHELAR SARVESHA SUDHIR	46		46
66	B190738566	SHRADDHA UMESH ADHAV	58		58
67	B190738567	SIRSAT KUSHAL POPAT	71		71
68	B190738568	SOMVANSHI DIVYANSH VIVEKRAO	64		64
69	B190738569	SONAWALE AJAY SAMBHAJI	69		69
70	B190738570	SONAWANE PRIYANKA KASHINATH	72		72
71	B190738571	SUDRIK AJINKYA NAVNATH	71		71
72	B190738572	SUSE NIKITA BALBHIM	74		74
73	B190738573	TAMBE SONALI MALHARI	51		51
74	B190738574	TUPKAR SURAJ KISHOR	73		73
75	B190738575	VHANKADE PIYUSHA VIJAYKUMAR	65		65
76	B190738576	VIKAS AMARJEET SINGH	65		65
77	B190738577	WAGHAMODE SANDIP DATTATRAY	57		57
78	B190738578	WAGHMARE MAYUR RAVINDRA	36		36
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>					<b>0</b>
<b>TOTAL NO. OF STUDENTS</b>					<b>78</b>
<b>CO ATTAINMENT in %</b>					<b>0</b>
<b>ATTAINMENT LEVEL</b>					<b>1</b>

### Direct Assessment

CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	60.26	0.00	18.08	1.00
CO2	53.85	0.00	16.15	1.00
CO3	79.49	0.00	23.85	1.00
CO4	82.05	0.00	24.62	1.00
CO5	65.38	0.00	19.62	1.00
CO6	76.92	0.00	23.08	1.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

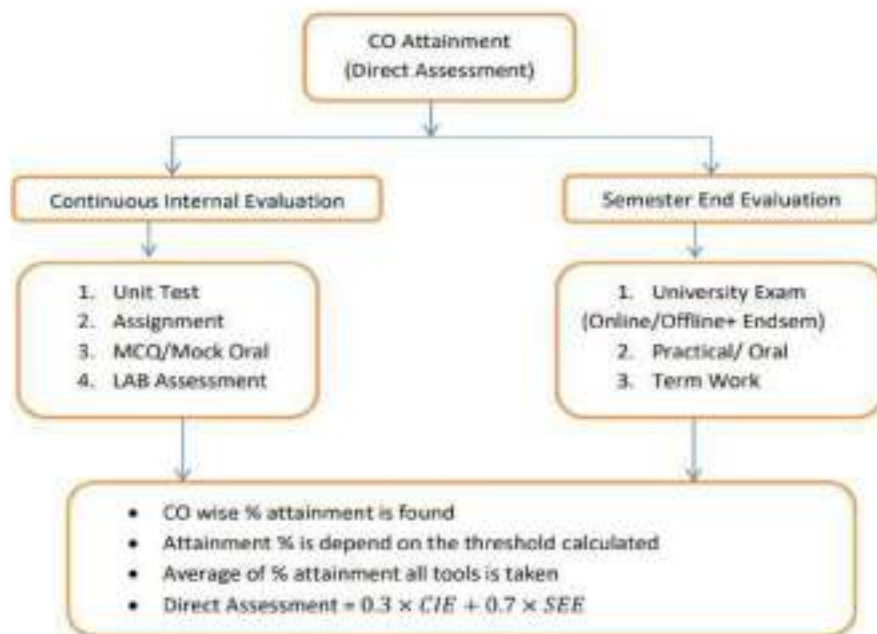
Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	60.26		
2	53.85		
3	79.49		
4	82.05		
5	65.38		
6	76.92		

Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	19.62		







**Subject: Deep Learning**

COURSE OBJECTIVES	
CO-1	Understand the theoretical foundations, algorithms, and methodologies of Deep Learning.
CO-2	Apply the concepts of Convolutional Neural Networks and neural networks, with applications.
CO-3	Compare Feed Forward Neural Networks and Recurrent Neural Networks and learn modeling the time-series using RNN and LSTM.
CO-4	Implement image and deep learning algorithms for Applications.
CO-5	Explain Reproduction Learning and Transfer Learning techniques using concepts of L2-Norm constraints.
CO-6	Evaluate the performance of deep learning algorithms and to provide solution for feature real-world application.

COURSE MAPPING												
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	100	100	100	100	100	100	100	100	100	100	100	100
CO2	100	100	100	100	100	100	100	100	100	100	100	100
CO3	100	100	100	100	100	100	100	100	100	100	100	100
CO4	100	100	100	100	100	100	100	100	100	100	100	100
CO5	100	100	100	100	100	100	100	100	100	100	100	100
CO6	100	100	100	100	100	100	100	100	100	100	100	100
Average	100	100	100	100	100	100	100	100	100	100	100	100

**Assessment Tool and Matrix**

Internal Tests (IT)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	20	20	20	20	20	20
Quiz Test	20	20	20	20	20	20

External Tests (ET)	CO1	CO2	CO3	CO4	CO5	CO6
PROJECT	20	20	20	20	20	20
ENDSEM	20	20	20	20	20	20
ORAL	20	20	20	20	20	20
THESIS/SA	20	20	20	20	20	20

**ATTAINMENT LEVELS**

LEVEL 3	More than 75% Students meeting Threshold Marks (75% <= AT <= 100%)
LEVEL 2	50% to 75% Students meeting Threshold Marks (50% <= AT <= 75%)
LEVEL 1	less than 50% Students meeting Threshold Marks (50% < AT < 50%)

**INTERNAL ASSESSMENT RECORD**

Sl. No.	Roll No.	SUBJECT: Deep Learning	Topic of Practice	Assignment										Class				SEM	SEM I				
				CO1					CO2					CO3	CO4	CO5	CO6						
				Q1	Q2	Q3	Q4	Q5	Q1	Q2	Q3	Q4	Q5										
1	1800001	ABHILASHA	ABHILASHA	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2	1800002	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
3	1800003	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
4	1800004	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5	1800005	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
6	1800006	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
7	1800007	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
8	1800008	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
9	1800009	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
10	1800010	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
11	1800011	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
12	1800012	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
13	1800013	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
14	1800014	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
15	1800015	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
16	1800016	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
17	1800017	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
18	1800018	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
19	1800019	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
20	1800020	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	1800021	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
22	1800022	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
23	1800023	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
24	1800024	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
25	1800025	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
26	1800026	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
27	1800027	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
28	1800028	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
29	1800029	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
30	1800030	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
31	1800031	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
32	1800032	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
33	1800033	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
34	1800034	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
35	1800035	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
36	1800036	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
37	1800037	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
38	1800038	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
39	1800039	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
40	1800040	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
41	1800041	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
42	1800042	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
43	1800043	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
44	1800044	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
45	1800045	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
46	1800046	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
47	1800047	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
48	1800048	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
49	1800049	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
50	1800050	ADARSH	ADARSH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20



**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Deep Learning**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	TERM WORK	ORAL / PRACTICAL	CO1 TO CO6
			100	25	25	150
			10	10	10	30
1	B190738501	ABHISHEK VINOD PAWSHEKAR	74	23	11	108
2	B190738502	ALKUNTE SHUBHANGI DASHRATH	58	21	15	94
3	B190738503	BANKAR AKSHAY VISHWANATH	59	18	14	91
4	B190738504	BAVALEKAR SUYASH SANTOSH	84	19	15	118
5	B190738505	BEDMUTHA BHAVIK MANOJKUMAR	69	20	16	105
6	B190738506	BHAMBRE ABHISHEK ANAND	76	21	10	107
7	B190738507	BHANGADE RUTUJA PRABHAKAR	65	16	5	86
8	B190738508	BHUJBAL SAYALI CHANDRAKANT	60	19	10	89
9	B190738509	BHUJBAL VAISHNAVI VIJAY	69	18	16	103
10	B190738510	CHAVAN SNEHAL DILIP	52	18	10	80
11	B190738511	CHORDIYA PRAJWAL SANJAY	76	19	15	110
12	B190738512	DHAMAK YASH VILAS	72	18	10	100
13	B190738513	DHAMALE SIDDHESH SHREERAM	52	19	15	86
14	B190738514	DUBALE YOGESHWARI HANUMANT	48	13	10	71
15	B190738515	DUKRE KISHOR RADHAKISAN	68	17	11	96
16	B190738516	FULPAGAR MANSI RAVI	56	18	4	78
17	B190738517	GAIKWAD AKASH KIRAN	65	19	10	94
18	B190738518	GAIKWAD JAYDIP BABURAV	57	15	3	75
19	B190738519	GAIKWAD YASH RAMESH	74	20	2	96
20	B190738520	GAVHANE RAHUL RAJEBHAU	60	19	12	91
21	B190738521	GHUGE RAVI SUBHASH	64	13	10	87
22	B190738522	HANDE RUTUJA DHANANJAY	80	20	12	112
23	B190738523	HASE VAIBHAV SUDAM	71	16	10	97
24	B190738524	HINGE VAISHNAVI SHANKAR	73	20	15	108
25	B190738525	JADHAV AKASH VISHWANATH	58	21	2	81
26	B190738526	JADHAV ANUJA DNYANESHWAR	45	23	10	78
27	B190738527	JAGTAP SATYADEEP SHAHAJI	40	10	1	51
28	B190738528	JAGTAP SIDDHARTH JITENDRA	49	17	11	77
29	B190738529	JAWAK ABHISHEK BHAUSAHEB	58	13	10	81
30	B190738530	JOGDAND DNYANESHWARI VIKRAM	79	19	13	111
31	B190738531	JOSHI PRACHI DASOPANT	75	19	12	106
32	B190738532	KALE POOJA NAVNATH	53	21	10	84
33	B190738533	KAMBLE SAURABH RAVINDRA	47	19	4	70
34	B190738534	KASHID VIKAS SANJAY	67	19	10	96
35	B190738535	KHALATE ANIKET DIPAK	67	22	14	103
36	B190738536	KHAPARE SAKSHI VINOD	72	20	11	103
37	B190738537	KORDE SHRADDHA RAM	62	11	10	83
38	B190738538	KOTASTHANE AKASH NARAYAN	28	10	1	39
39	B190738539	KUMBHAR VAIBHAV VILAS	70	18	3	91
40	B190738540	KUNTURKAR OMKAR UMAKANT	65	17	10	92
41	B190738541	LAHASE ASHUTOSH BHASKAR	41	12	10	63
42	B190738542	MHETRE AKANKSHA SHANKAR	33	14	12	59
43	B190738543	NARKHEDE SWARUPA NARENDRA	45	13	12	70
44	B190738544	NILANGE VAISHNAVI MANOJ	63	17	11	91
45	B190738545	NIRGUDE DNYANESHWAR VIJAY	58	12	10	80
46	B190738546	PARKALE SATYAM DIGAMBAR	75	20	2	97
47	B190738547	PATIL TUSHAR RAJU	73	19	10	102
48	B190738548	PAWAR AISHWARYA GUNVANT	67	18	15	100
49	B190738549	PAWAR GANESH RAJENDRA	78	16	10	104
50	B190738550	PAWAR SUDHIR PRAVIN	45	12	2	59
51	B190738551	PISAL VAIBHAV RAJABHAU	72	21	12	105



52	B190738552	POOJARI AKASH CHANDRAHASA	84	18	20	122
53	B190738553	PRATIKSHA ASHOK WAGH	62	18	15	95
54	B190738554	RAMKAR AKASH RAMESH	75	21	15	111
55	B190738555	RATHOD MANAV PRAMOD	66	18	17	101
56	B190738556	RAUT NIKITA RAJENDRA	76	20	10	106
57	B190738557	RAUT VAISHNAVI MALHARI	62	19	10	91
58	B190738558	SADANANDE SAHIL SANJAY	42	17	2	61
59	B190738559	SAKUNDE SHIVRAJ MARUTI	76	19	11	106
60	B190738560	SALUNKE JAYESH RAMESH	77	18	10	105
61	B190738561	SANDBHOR KISHOR SANDIP	50	19	14	83
62	B190738562	SANGULE VEDANT JIVANDHAR	53	11	10	74
63	B190738563	SANKET SANJAY KAWLE	70	13	10	93
64	B190738564	SHARDUL DHIRAJ KOMAL	30	12	5	47
65	B190738565	SHELAR SARVESHA SUDHIR	51	14	10	75
66	B190738566	SHRADDHA UMESH ADHAV	54	13	10	77
67	B190738567	SIRSAT KUSHAL POPAT	76	22	12	110
68	B190738568	SOMVANSHI DIVYANSH VIVEKRAO	57	18	12	87
69	B190738569	SONAWALE AJAY SAMBHAJI	65	17	10	92
70	B190738570	SONAWANE PRIYANKA KASHINATH	73	21	12	106
71	B190738571	SUDRIK AJINKYA NAVNATH	76	14	10	100
72	B190738572	SUSE NIKITA BALBHIM	70	18	10	98
73	B190738573	TAMBE SONALI MALHARI	59	12	4	75
74	B190738574	TUPKAR SURAJ KISHOR	68	13	18	99
75	B190738575	VHANKADE PIYUSHA VIJAYKUMAR	70	12	5	87
76	B190738576	VIKAS AMARJEET SINGH	64	18	16	98
77	B190738577	WAGHAMODE SANDIP DATTATRAY	74	19	15	108
78	B190738578	WAGHMARE MAYUR RAVINDRA	21	10	1	32
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						46
<b>TOTAL NO. OF STUDENTS</b>						78
<b>CO ATTAINMENT in %</b>						58.97435897
<b>ATTAINMENT LEVEL</b>						2



### Direct Assessment

CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	62.82	58.97	60.13	2.00
CO2	67.95	58.97	61.67	2.00
CO3	80.77	58.97	65.51	2.00
CO4	84.62	58.97	66.67	2.00
CO5	76.92	58.97	64.36	2.00
CO6	74.36	58.97	63.59	2.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

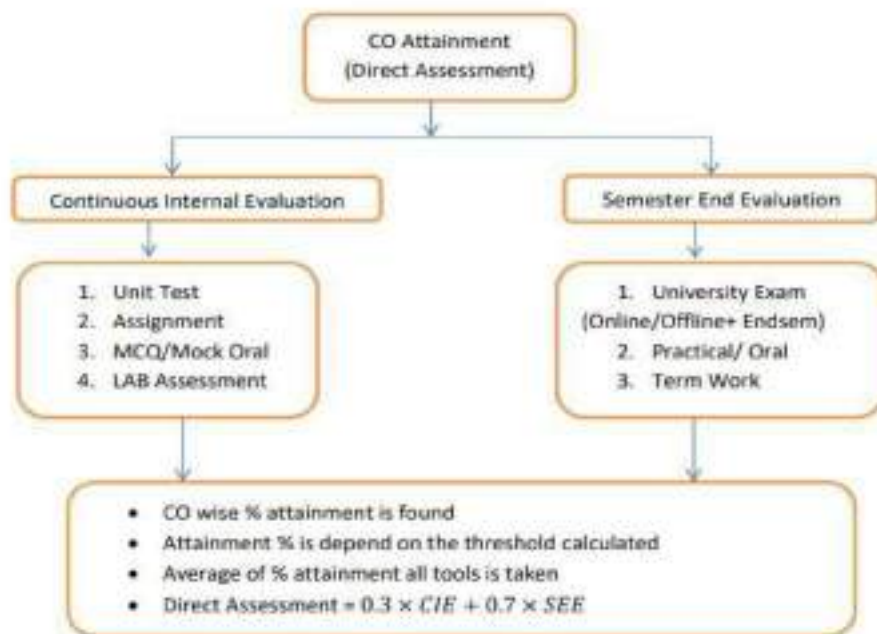
Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	62.82		
2	67.95		
3	80.77		
4	84.62		
5	76.92		
6	74.36		

Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	64.36		





Enterprise Computing

CO	CO1	CO2	CO3	CO4	CO5	CO6
CO1	Understand the basic concepts of mobile computing, M2M and different computing systems.					
CO2	Understand Protocol, Transport, Application, Security, Reliability, Routing of mobile communication system.					
CO3	Understand the Direction of Mobile Communication, Technologies.					
CO4	Understand IP, GPRS, Network, Service Provision, Mobile Billing.					
CO5	Understand knowledge of Internet layer protocol (TCP, UDP) Services and different application layer protocols.					
CO6	Understand Edge, IP based mobile platforms, operating systems, Software Development & System Issues.					

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	
CO1	1.00				1.00	1.00	1.00	1.00					1.00	1.00	1.00
CO2	1.00		1.00	1.00	1.00	1.00	1.00	1.00					1.00	1.00	1.00
CO3	1.00		1.00		1.00	1.00							1.00	1.00	1.00
CO4	1.00	1.00	1.00		1.00	1.00							1.00	1.00	1.00
CO5	1.00	1.00	1.00		1.00	1.00							1.00	1.00	1.00
CO6	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Average	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Assessment Tool and Matrix

Assess Tool (CTE)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	20	20	20	20	20	20
Lab Test	10	10	10	10	10	10

Assess Tool (SEE)	CO1	CO2	CO3	CO4	CO5	CO6
THEORY	20	20	20	20	20	20
EXERCISE	20	20	20	20	20	20
PROJECT	10	10	10	10	10	10
TERM SCORE	10	10	10	10	10	10

ATTAINMENT LEVELS

LEVEL 2	More than 75% Students scoring Threshold Marks (75%-A1 to 100%)
LEVEL 1	50% to 74% Students scoring Threshold Marks (50%-A1 to 75%)
LEVEL 0	Less than 50% Students scoring Threshold Marks (0%-A1 to 50%)

**INTERNAL ASSESSMENT RECORD**

**SUBJECT: Mobile Computing**

Class: **BC SEM I**

Sl. No.	Roll No.	Name of Student	Assignment						Lab Test			TOTAL						
			CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6	CO7	CO8	CO9	CO10
1	BCBC001	ABHIR YASHRAJPOKARI	7	7	8	8	9	7	7	8	10	11	12	13	14	15	16	17
2	BCBC002	AARON SAMIRRAJ SHARMA	7	7	7	7	8	9	7	8	9	9	10	10	11	11	12	13
3	BCBC003	ADARSH MOHIT SHANKAR	8	9	7	7	7	9	9	10	10	10	10	11	11	12	13	14
4	BCBC004	ADARSH SURESH SHIRDI	8	7	7	7	7	8	9	10	10	10	11	11	12	13	14	15
5	BCBC005	ADITHYAN SHYAM ANANDKUMAR	7	7	7	8	7	7	9	9	10	10	10	11	11	12	13	14
6	BCBC006	ADITHYAN SHYAM ANAND	7	7	8	7	8	7	7	10	10	10	11	11	12	13	14	15
7	BCBC007	ADITHYAN SHYAM ANAND	8	8	7	7	8	9	9	10	10	11	11	12	13	14	15	16
8	BCBC008	ADITHYAN SHYAM ANAND	7	7	8	8	8	7	7	10	10	10	11	11	12	13	14	15
9	BCBC009	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
10	BCBC010	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
11	BCBC011	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
12	BCBC012	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
13	BCBC013	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
14	BCBC014	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
15	BCBC015	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
16	BCBC016	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
17	BCBC017	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
18	BCBC018	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
19	BCBC019	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
20	BCBC020	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
21	BCBC021	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
22	BCBC022	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
23	BCBC023	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
24	BCBC024	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
25	BCBC025	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
26	BCBC026	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
27	BCBC027	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
28	BCBC028	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
29	BCBC029	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
30	BCBC030	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
31	BCBC031	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
32	BCBC032	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
33	BCBC033	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
34	BCBC034	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
35	BCBC035	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
36	BCBC036	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
37	BCBC037	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
38	BCBC038	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
39	BCBC039	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16
40	BCBC040	ADITHYAN SHYAM ANAND	7	7	7	7	8	9	9	10	10	11	11	12	13	14	15	16





**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Mobile Computing**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	TERM WORK	ORAL / PRACTICAL	CO1 TO CO6
			100	0	0	100
			10	0	0	30
1	B190738501	ABHISHEK VINOD PAWSHEKAR	74			74
2	B190738502	ALKUNTE SHUBHANGI DASHRATH	66			66
3	B190738503	BANKAR AKSHAY VISHWANATH	65			65
4	B190738504	BAVALEKAR SUYASH SANTOSH	85			85
5	B190738505	BEDMUTHA BHAVIK MANOJKUMAR	61			61
6	B190738506	BHAMBRE ABHISHEK ANAND	82			82
7	B190738507	BHANGADE RUTUJA PRABHAKAR	64			64
8	B190738508	BHUJBAL SAYALI CHANDRAKANT	56			56
9	B190738509	BHUJBAL VAISHNAVI VIJAY	58			58
10	B190738510	CHAVAN SNEHAL DILIP	54			54
11	B190738511	CHORDIYA PRAJWAL SANJAY	67			67
12	B190738512	DHAMAK YASH VILAS	75			75
13	B190738513	DHAMALE SIDDHESH SHREERAM	60			60
14	B190738514	DUBALE YOGESHWARI HANUMANT	54			54
15	B190738515	DUKRE KISHOR RADHAKISAN	77			77
16	B190738516	FULPAGAR MANSI RAVI	52			52
17	B190738517	GAIKWAD AKASH KIRAN	66			66
18	B190738518	GAIKWAD JAYDIP BABURAV	65			65
19	B190738519	GAIKWAD YASH RAMESH	78			78
20	B190738520	GAVHANE RAHUL RAJEBHAU	72			72
21	B190738521	GHUGE RAVI SUBHASH	74			74
22	B190738522	HANDE RUTUJA DHANANJAY	76			76
23	B190738523	HASE VAIBHAV SUDAM	64			64
24	B190738524	HINGE VAISHNAVI SHANKAR	78			78
25	B190738525	JADHAV AKASH VISHWANATH	57			57
26	B190738526	JADHAV ANUJA DNYANESHWAR	52			52
27	B190738527	JAGTAP SATYADEEP SHAHAJI	36			36
28	B190738528	JAGTAP SIDDHARTH JITENDRA	51			51
29	B190738529	JAWAK ABHISHEK BHAUSAHEB	65			65
30	B190738530	JOGDAND DNYANESHWARI VIKRAM	83			83
31	B190738531	JOSHI PRACHI DASOPANT	65			65
32	B190738532	KALE POOJA NAVNATH	58			58
33	B190738533	KAMBLE SAURABH RAVINDRA	51			51
34	B190738534	KASHID VIKAS SANJAY	75			75
35	B190738535	KHALATE ANIKET DIPAK	80			80
36	B190738536	KHAPARE SAKSHI VINOD	79			79
37	B190738537	KORDE SHRADDHA RAM	48			48
38	B190738538	KOTASTHANE AKASH NARAYAN	25			25
39	B190738539	KUMBHAR VAIBHAV VILAS	55			55
40	B190738540	KUNTURKAR OMKAR UMAKANT	62			62
41	B190738541	LAHASE ASHUTOSH BHASKAR	44			44
42	B190738542	MHETRE AKANKSHA SHANKAR	43			43
43	B190738543	NARKHEDE SWARUPA NARENDRA	45			45
44	B190738544	NILANGE VAISHNAVI MANOJ	64			64
45	B190738545	NIRGUDE DNYANESHWAR VIJAY	66			66
46	B190738546	PARKALE SATYAM DIGAMBAR	81			81
47	B190738547	PATIL TUSHAR RAJU	73			73
48	B190738548	PAWAR AISHWARYA GUNVANT	73			73
49	B190738549	PAWAR GANESH RAJENDRA	86			86
50	B190738550	PAWAR SUDHIR PRAVIN	46			46
51	B190738551	PISAL VAIBHAV RAJABHAU	67			67

52	B190738552	POOJARI AKASH CHANDRAHASA	66		66
53	B190738553	PRATIKSHA ASHOK WAGH	70		70
54	B190738554	RAMKAR AKASH RAMESH	72		72
55	B190738555	RATHOD MANAV PRAMOD	58		58
56	B190738556	RAUT NIKITA RAJENDRA	75		75
57	B190738557	RAUT VAISHNAVI MALHARI	57		57
58	B190738558	SADANANDE SAHIL SANJAY	44		44
59	B190738559	SAKUNDE SHIVRAJ MARUTI	71		71
60	B190738560	SALUNKE JAYESH RAMESH	78		78
61	B190738561	SANDBHOR KISHOR SANDIP	65		65
62	B190738562	SANGULE VEDANT JIVANDHAR	53		53
63	B190738563	SANKET SANJAY KAWLE	68		68
64	B190738564	SHARDUL DHIRAJ KOMAL	21		21
65	B190738565	SHELAR SARVESHA SUDHIR	49		49
66	B190738566	SHRADDHA UMESH ADHAV	59		59
67	B190738567	SIRSAT KUSHAL POPAT	70		70
68	B190738568	SOMVANSHI DIVYANSH VIVEKRAO	64		64
69	B190738569	SONAWALE AJAY SAMBHAJI	68		68
70	B190738570	SONAWANE PRIYANKA KASHINATH	76		76
71	B190738571	SUDRIK AJINKYA NAVNATH	74		74
72	B190738572	SUSE NIKITA BALBHIM	70		70
73	B190738573	TAMBE SONALI MALHARI	54		54
74	B190738574	TUPKAR SURAJ KISHOR	55		55
75	B190738575	VHANKADE PIYUSHA VIJAYKUMAR	65		65
76	B190738576	VIKAS AMARJEET SINGH	65		65
77	B190738577	WAGHAMODE SANDIP DATTATRAY	79		79
78	B190738578	WAGHMARE MAYUR RAVINDRA	32		32
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>					50
<b>TOTAL NO. OF STUDENTS</b>					78
<b>CO ATTAINMENT in %</b>					64.1025641
<b>ATTAINMENT LEVEL</b>					2



### Direct Assessment

CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	89.74	64.10	71.79	2.00
CO2	93.59	64.10	72.95	2.00
CO3	100.00	64.10	74.87	2.00
CO4	94.87	64.10	73.33	2.00
CO5	98.72	64.10	74.49	2.00
CO6	94.87	64.10	73.33	2.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	89.74		
2	93.59		
3	100.00		
4	94.87		
5	98.72		
6	94.87		

Table 2: Target vs attainment (SEE)

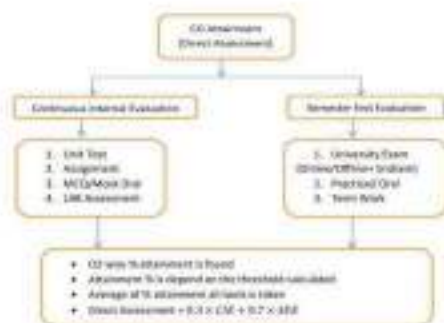
CO	SEE attainment	Gap	Action Planned
1TO6	74.49		

CO PO MAPPING															
CO	CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CD1	C4842	1.00				1.00	1.00	1.00	1.00				1.00	1.00	1.00
CD2	C4842	1.00		1.00	1.00	1.00	1.00	1.00						1.00	1.00
CD3	C4843	1.00		1.00		1.00	1.00							1.00	1.00
CD4	C4844	1.00	1.00	1.00		1.00	1.00							1.00	1.00
CD5	C4845	1.00	1.00	1.00		1.00	1.00							1.00	1.00
CD6	C4846	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					1.00	1.00
Average		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					1.00	1.00

CO	SGO ATTN	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8		PO9		PO10		PO11		PO12		PO13		PO14			
		Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att		
CD1	71.79	1.00	2.15			1.00	0.79						1.00	1.44			1.00	1.00							1.00	1.44	1.00	1.44	1.00	0.72	
CD2	72.95	1.00	2.15										1.00	1.46	1.00	2.15										1.00	1.46	1.00	1.46	1.00	0.71
CD3	74.87	1.00	2.25										1.00	1.50												1.00	1.50	1.00	1.50	1.00	1.25
CD4	73.33	1.00	2.28	1.00	1.20								1.00	1.47											1.00	1.47	1.00	1.47	1.00	1.20	
CD5	74.49	1.00	2.23	1.00	1.21	1.00	0.79						1.00	1.48											1.00	1.48	1.00	1.48	1.00	0.74	
CD6	73.33	1.00	2.28	1.00	1.20								1.00	1.47			1.00	0.71							1.00	1.47	1.00	1.47	1.00	1.20	
Average		1.00	2.20	1.00	1.21	0.50	0.37						1.00	1.47	1.00	1.48									1.00	1.47	1.00	1.47	1.00	1.20	

ATTAINED POPNO VALUES													
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
2.28	2.21	0.77	0.69	0.68	1.59	0.80	1.00	0.00	0.00	0.00	0.00	1.00	1.00





Subject: Wireless Communication

CO	COs	LOs/POs
CO1	Analyze the fundamental concepts of cellular systems.	
CO2	Analyze the fundamentals of cellular systems.	
CO3	Describe multiple access techniques for efficient utilization of spectrum.	
CO4	Design and analyze the RLP Programming Model in networking environment.	
CO5	Identify and implement various codes, channels and links in wireless communication.	
CO6	Apply the existing tools and applications in wireless communication.	

CO PO MAPPING													
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13
CO1	100				100	100	100	100				100	100
CO2	100		100	100	100	100	100					100	100
CO3	100		100		100	100						100	100
CO4	100	100	100		100	100						100	100
CO5	100	100	100		100	100						100	100
CO6	100	100	100	100	100	100	100	100				100	100
Average	100	100	100	100	100	100	100	100	100	100	100	100	100

Assessment Tool and Matrix

Assess Tool (AT)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	01	01	01	01	01	01
Lab Test	01	01	01	01	01	01

Assess Tool (AT)	CO1	CO2	CO3	CO4	CO5	CO6
ONLINE	01	01	01	01	01	01
EXERCISE	01	01	01	01	01	01
PROJECT	01	01	01	01	01	01
TECHNICAL	01	01	01	01	01	01
TERMINAL	01	01	01	01	01	01

ATTAINMENT LEVELS

LEVEL 1:	More than 75% Students scoring Threshold Marks (75%-81%-100%)
LEVEL 2:	50% to 75% Students scoring Threshold Marks (50%-75%-100%)
LEVEL 3:	Less than 50% Students scoring Threshold Marks (0%-50%-100%)

## INTERNAL ASSESSMENT RECORD

Sl. No.	Roll No.	Name of Student	SUBJECT-Wireless Communication												Class	DE	SEM	I
			Assignment						Unit Test									
			CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6				
1	1001001	ABHIR YASHWANTH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1001002	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1001003	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1001004	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1001005	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1001006	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1001007	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1001008	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1001009	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1001010	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	1001011	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1001012	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	1001013	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1001014	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	1001015	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	1001016	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	1001017	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	1001018	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	1001019	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	1001020	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	1001021	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	1001022	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23	1001023	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	1001024	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	1001025	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	1001026	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	1001027	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28	1001028	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	1001029	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	1001030	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31	1001031	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32	1001032	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33	1001033	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34	1001034	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	1001035	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
36	1001036	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37	1001037	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
38	1001038	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
39	1001039	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
40	1001040	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
41	1001041	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
42	1001042	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
43	1001043	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
44	1001044	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
45	1001045	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
46	1001046	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
47	1001047	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
48	1001048	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
49	1001049	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
50	1001050	ADARSH SRIHARISHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1



**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Wireless Communication**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	TERM WORK	ORAL / PRACTICAL	CO1 TO CO6
			100	0	0	100
			10	0	0	30
1	B190738501	ABHISHEK VINOD PAWSHEKAR	52			52
2	B190738502	ALKUNTE SHUBHANGI DASHRATH	55			55
3	B190738503	BANKAR AKSHAY VISHWANATH	48			48
4	B190738504	BAVALEKAR SUYASH SANTOSH	86			86
5	B190738505	BEDMUTHA BHAVIK MANOJKUMAR	59			59
6	B190738506	BHAMBRE ABHISHEK ANAND	71			71
7	B190738507	BHANGADE RUTUJA PRABHAKAR	62			62
8	B190738508	BHUJBAL SAYALI CHANDRAKANT	56			56
9	B190738509	BHUJBAL VAISHNAVI VIJAY	57			57
10	B190738510	CHAVAN SNEHAL DILIP	51			51
11	B190738511	CHORDIYA PRAJWAL SANJAY	53			53
12	B190738512	DHAMAK YASH VILAS	75			75
13	B190738513	DHAMALE SIDDHESH SHREERAM	52			52
14	B190738514	DUBALE YOGESHWARI HANUMANT	57			57
15	B190738515	DUKRE KISHOR RADHAKISAN	67			67
16	B190738516	FULPAGAR MANSI RAVI	48			48
17	B190738517	GAIKWAD AKASH KIRAN	54			54
18	B190738518	GAIKWAD JAYDIP BABURAV	59			59
19	B190738519	GAIKWAD YASH RAMESH	65			65
20	B190738520	GAVHANE RAHUL RAJEBHAU	55			55
21	B190738521	GHUGE RAVI SUBHASH	59			59
22	B190738522	HANDE RUTUJA DHANANJAY	70			70
23	B190738523	HASE VAIBHAV SUDAM	62			62
24	B190738524	HINGE VAISHNAVI SHANKAR	80			80
25	B190738525	JADHAV AKASH VISHWANATH	64			64
26	B190738526	JADHAV ANUJA DNYANESHWAR	48			48
27	B190738527	JAGTAP SATYADEEP SHAHAJI	26			26
28	B190738528	JAGTAP SIDDHARTH JITENDRA	52			52
29	B190738529	JAWAK ABHISHEK BHAUSAHEB	49			49
30	B190738530	JOGDAND DNYANESHWARI VIKRAM	77			77
31	B190738531	JOSHI PRACHI DASOPANT	56			56
32	B190738532	KALE POOJA NAVNATH	46			46
33	B190738533	KAMBLE SAURABH RAVINDRA	47			47
34	B190738534	KASHID VIKAS SANJAY	56			56
35	B190738535	KHALATE ANIKET DIPAK	73			73
36	B190738536	KHAPARE SAKSHI VINOD	69			69
37	B190738537	KORDE SHRADDHA RAM	51			51
38	B190738538	KOTASTHANE AKASH NARAYAN	5			5
39	B190738539	KUMBHAR VAIBHAV VILAS	62			62
40	B190738540	KUNTURKAR OMKAR UMAKANT	74			74
41	B190738541	LAHASE ASHUTOSH BHASKAR	54			54
42	B190738542	MHETRE AKANKSHA SHANKAR	34			34
43	B190738543	NARKHEDE SWARUPA NARENDRA	47			47
44	B190738544	NILANGE VAISHNAVI MANOJ	69			69
45	B190738545	NIRGUDE DNYANESHWAR VIJAY	71			71
46	B190738546	PARKALE SATYAM DIGAMBAR	67			67
47	B190738547	PATIL TUSHAR RAJU	61			61
48	B190738548	PAWAR AISHWARYA GUNVANT	58			58
49	B190738549	PAWAR GANESH RAJENDRA	61			61
50	B190738550	PAWAR SUDHIR PRAVIN	47			47
51	B190738551	PISAL VAIBHAV RAJABHAU	56			56



52	B190738552	POOJARI AKASH CHANDRAHASA	60		60
53	B190738553	PRATIKSHA ASHOK WAGH	64		64
54	B190738554	RAMKAR AKASH RAMESH	65		65
55	B190738555	RATHOD MANAV PRAMOD	50		50
56	B190738556	RAUT NIKITA RAJENDRA	64		64
57	B190738557	RAUT VAISHNAVI MALHARI	53		53
58	B190738558	SADANANDE SAHIL SANJAY	38		38
59	B190738559	SAKUNDE SHIVRAJ MARUTI	60		60
60	B190738560	SALUNKE JAYESH RAMESH	66		66
61	B190738561	SANDBHOR KISHOR SANDIP	62		62
62	B190738562	SANGULE VEDANT JIVANDHAR	52		52
63	B190738563	SANKET SANJAY KAWLE	56		56
64	B190738564	SHARDUL DHIRAJ KOMAL	21		21
65	B190738565	SHELAR SARVESHA SUDHIR	50		50
66	B190738566	SHRADDHA UMESH ADHAV	58		58
67	B190738567	SIRSAT KUSHAL POPAT	65		65
68	B190738568	SOMVANSHI DIVYANSH VIVEKRAO	44		44
69	B190738569	SONAWALE AJAY SAMBHAJI	59		59
70	B190738570	SONAWANE PRIYANKA KASHINATH	64		64
71	B190738571	SUDRIK AJINKYA NAVNATH	63		63
72	B190738572	SUSE NIKITA BALBHIM	57		57
73	B190738573	TAMBE SONALI MALHARI	43		43
74	B190738574	TUPKAR SURAJ KISHOR	63		63
75	B190738575	VHANKADE PIYUSHA VIJAYKUMAR	60		60
76	B190738576	VIKAS AMARJEET SINGH	60		60
77	B190738577	WAGHAMODE SANDIP DATTATRAY	62		62
78	B190738578	WAGHMARE MAYUR RAVINDRA	9		9
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>					50
<b>TOTAL NO. OF STUDENTS</b>					78
<b>CO ATTAINMENT in %</b>					64.1025641
<b>ATTAINMENT LEVEL</b>					2

### Direct Assessment

CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	76.92	64.10	67.95	2.00
CO2	88.46	64.10	71.41	2.00
CO3	94.87	64.10	73.33	2.00
CO4	94.87	64.10	73.33	2.00
CO5	92.31	64.10	72.56	2.00
CO6	88.46	64.10	71.41	2.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	76.92		
2	88.46		
3	94.87		
4	94.87		
5	92.31		
6	88.46		

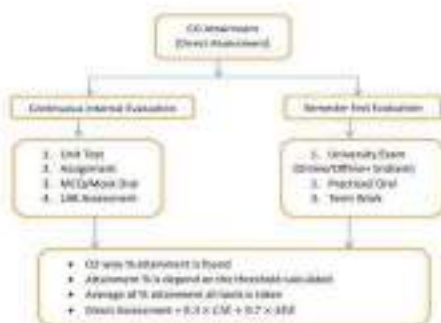
Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	72.56		

CO PO MAPPING															
CO	CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CD1	C4852	1.00				1.00	1.00	1.00	1.00				1.00	1.00	1.00
CD2	C4852	1.00		1.00	1.00	1.00	1.00	1.00						1.00	1.00
CD3	C4853	1.00		1.00		1.00	1.00							1.00	1.00
CD4	C4854	1.00	1.00	1.00		1.00	1.00							1.00	1.00
CD5	C4853	1.00	1.00	1.00		1.00	1.00							1.00	1.00
CD6	C4854	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					1.00	1.00
Average		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					1.00	1.00

CO	% GO ATTN	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8		PO9		PO10		PO11		PO12		PO13		PO14	
		Mag	Attn	Mag	Attn	Mag	Attn	Mag	Attn	Mag	Attn	Mag	Attn	Mag	Attn	Mag	Attn	Mag	Attn	Mag	Attn	Mag	Attn	Mag	Attn	Mag	Attn	Mag	Attn
CD1	67.95	1.00	1.04			1.00	0.75					1.00	1.34			1.00	1.36							1.00	1.35	1.00	1.34	1.00	1.34
CD2	71.41	1.00	1.14									1.00	1.41	1.00	1.14											1.00	1.43	1.00	1.41
CD3	71.33	1.00	1.15									1.00	1.47													1.00	1.45	1.00	1.44
CD4	71.33	1.00	1.15	1.00	1.15							1.00	1.47											1.00	1.47	1.00	1.45	1.00	1.44
CD5	72.56	1.00	1.18	1.00	1.15	1.00	0.75					1.00	1.45											1.00	1.45	1.00	1.45	1.00	1.45
CD6	71.41	1.00	1.14	1.00	1.14							1.00	1.14			1.00	0.71							1.00	1.14	1.00	1.14	1.00	1.14
Average		1.00	1.15	1.00	1.17	0.76	0.76					1.00	1.35	1.00		1.00	1.14							1.00	1.44	1.00	1.44	1.00	1.44

ATTAINED POPNO VALUES													
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
1.15	1.17	0.76	0.76	0.76	1.15	0.76	0.76	0.76	0.76	0.76	1.00	1.14	1.44



Subject Distribution System

CO	COs	LOs/Outcomes
CO1		Explain the core concepts of distributed systems.
CO2		Explain the concept of architecture of distributed systems.
CO3		Explain the general communication models and related different synchronization algorithms.
CO4		Explain the importance of replication in a distributed system to distributed systems.
CO5		Explain the design and functioning of tracing in distributed systems, state based algorithms.
CO6		Explain various Backup Tools in distributed systems.

CO PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	PO15
CO1	100			100	100		100	100					100	100	100
CO2	100	100	100	100	100		100	100					100	100	100
CO3	100			100	100								100	100	100
CO4	100	100		100	100								100	100	100
CO5	100	100	100	100	100		100	100					100	100	100
CO6	100			100	100		100	100					100	100	100
Average	100	100	100	100	100		100	100					100	100	100

Assessment Tool and Matrix

Assess Tool (CTE)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	0	0	0	0	0	0
Lab Test	0	0	0	0	0	0

Exam Tool (SEE)	CO1	CO2	CO3	CO4	CO5	CO6
ONLINE	0	0	0	0	0	0
EXAM	0	0	0	0	0	0
PROJECT	0	0	0	0	0	0
TECHNICAL	0	0	0	0	0	0
TERMINAL	0	0	0	0	0	0

ATTAINMENT LEVELS

LEVEL 1:	More than 75% Students scoring Threshold Marks (75%-81%-100%)
LEVEL 2:	50% to 75% Students scoring Threshold Marks (50%-54%-75%)
LEVEL 3:	Less than 50% Students scoring Threshold Marks (0%-49%-50%)



## INTERNAL ASSESSMENT RECORD

SUBJECT: DIVULGED SYSTEMS		Name of Module	Assessment										Class	RE	MMC	E				
No.	Roll No.		100	101	102	103	104	105	106	107	108	109					110	111	112	113
1	XXXXXXXX	ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
2	XXXXXXXX	ALGORITHMIC ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
3	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
4	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
5	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
6	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
7	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
8	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
9	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
10	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
11	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
12	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
13	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
14	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
15	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
16	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
17	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
18	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
19	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
20	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
21	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
22	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
23	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
24	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
25	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
26	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
27	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
28	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
29	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
30	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
31	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
32	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
33	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
34	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
35	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
36	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
37	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11
38	XXXXXXXX	SECURITY ANALYSIS OF NETWORKS	7	8	7	9	8	7	10	9	8	7	8	9	8	7	8	9	10	11



**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Distributed Systems**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	TERM WORK	ORAL / PRACTICAL	CO1 TO CO6
			100	50	25	175
			10	10	10	30
1	B190738501	ABHISHEK VINOD PAWSHEKAR	64	43	22	129
2	B190738502	ALKUNTE SHUBHANGI DASHRATH	66	41	21	128
3	B190738503	BANKAR AKSHAY VISHWANATH	63	41	21	125
4	B190738504	BAVALEKAR SUYASH SANTOSH	83	44	23	150
5	B190738505	BEDMUTHA BHAVIK MANOJKUMAR	64	39	20	123
6	B190738506	BHAMBRE ABHISHEK ANAND	67	42	21	130
7	B190738507	BHANGADE RUTUJA PRABHAKAR	64	39	20	123
8	B190738508	BHUJIBAL SAYALI CHANDRAKANT	60	40	21	121
9	B190738509	BHUJIBAL VAISHNAVI VIJAY	72	43	22	137
10	B190738510	CHAVAN SNEHAL DILIP	50	38	20	108
11	B190738511	CHORDIYA PRAJWAL SANJAY	54	43	22	119
12	B190738512	DHAMAK YASH VILAS	66	41	21	128
13	B190738513	DHAMALE SIDDHESH SHREERAM	51	42	22	115
14	B190738514	DUBALE YOGESHWARI HANUMANT	56	39	20	115
15	B190738515	DUKRE KISHOR RADHAKISAN	70	40	20	130
16	B190738516	FULPAGAR MANSI RAVI	54	39	20	113
17	B190738517	GAIKWAD AKASH KIRAN	54	40	20	114
18	B190738518	GAIKWAD JAYDIP BABURAV	64	39	20	123
19	B190738519	GAIKWAD YASH RAMESH	65	43	22	130
20	B190738520	GAVHANE RAHUL RAJEBHAU	54	40	21	115
21	B190738521	GHUGE RAVI SUBHASH	60	40	20	120
22	B190738522	HANDE RUTUJA DHANANJAY	67	45	23	135
23	B190738523	HASE VAIBHAV SUDAM	55	39	20	114
24	B190738524	HINGE VAISHNAVI SHANKAR	67	45	23	135
25	B190738525	JADHAV AKASH VISHWANATH	56	42	22	120
26	B190738526	JADHAV ANUJA DNYANESHWAR	52	45	23	120
27	B190738527	JAGTAP SATYADEEP SHAHAJI	44	35	19	98
28	B190738528	JAGTAP SIDDHARTH JITENDRA	58	39	20	117
29	B190738529	JAWAK ABHISHEK BHAUSAHEB	51	38	19	108
30	B190738530	JOGDAND DNYANESHWARI VIKRAM	60	42	21	123
31	B190738531	JOSHI PRACHI DASOPANT	75	40	20	135
32	B190738532	KALE POOJA NAVNATH	51	40	20	111
33	B190738533	KAMBLE SAURABH RAVINDRA	46	38	19	103
34	B190738534	KASHID VIKAS SANJAY	66	40	20	126
35	B190738535	KHALATE ANIKET DIPAK	76	44	22	142
36	B190738536	KHAPARE SAKSHI VINOD	62	40	21	123
37	B190738537	KORDE SHRADDHA RAM	46	35	18	99
38	B190738538	KOTASTHANE AKASH NARAYAN	42	38	19	99
39	B190738539	KUMBHAR VAIBHAV VILAS	68	39	20	127
40	B190738540	KUNTURKAR OMKAR UMAKANT	76	40	20	136
41	B190738541	LAHASE ASHUTOSH BHASKAR	43	37	19	99
42	B190738542	MHETRE AKANKSHA SHANKAR	42	35	18	95
43	B190738543	NARKHEDE SWARUPA NARENDRA	37	35	18	90
44	B190738544	NILANGE VAISHNAVI MANOJ	75	39	20	134
45	B190738545	NIRGUDE DNYANESHWAR VIJAY	76	35	18	129
46	B190738546	PARKALE SATYAM DIGAMBAR	86	40	20	146
47	B190738547	PATIL TUSHAR RAJU	85	42	21	148
48	B190738548	PAWAR AISHWARYA GUNVANT	71	42	21	134
49	B190738549	PAWAR GANESH RAJENDRA	83	39	20	142
50	B190738550	PAWAR SUDHIR PRAVIN	52	36	18	106
51	B190738551	PISAL VAIBHAV RAJABHAU	77	40	20	137
52	B190738552	POOJARI AKASH CHANDRAHASA	79	42	21	142
53	B190738553	PRATIKSHA ASHOK WAGH	85	38	19	142
54	B190738554	RAMKAR AKASH RAMESH	68	43	22	133

55	B190738555	RATHOD MANAV PRAMOD	69	43	22	134
56	B190738556	RAUT NIKITA RAJENDRA	79	40	20	139
57	B190738557	RAUT VAISHNAVI MALHARI	60	35	18	113
58	B190738558	SADAMANDE SAHIL SANJAY	43	39	20	102
59	B190738559	SAKUNDE SHIVRAJ MARUTI	71	42	21	134
60	B190738560	SALUNKE JAYESH RAMESH	77	40	20	137
61	B190738561	SANDBHOR KISHOR SANDIP	74	39	20	133
62	B190738562	SANGULE VEDANT JIVANDHAR	58	41	21	120
63	B190738563	SANKET SANJAY KAWLE	75	40	20	135
64	B190738564	SHARDUL DHIRAJ KOMAL	5	25	15	45
65	B190738565	SHELAR SARVESHA SUDHIR	52	39	20	111
66	B190738566	SHRADDHA UMESH ADHAV	56	40	20	116
67	B190738567	SIRSAT KUSHAL POPAT	69	44	21	134
68	B190738568	SOMVANSHI DIVYANSH VIVEKRAO	46	45	23	114
69	B190738569	SONAWALE AJAY SAMBHAI	70	39	20	129
70	B190738570	SONAWANE PRIYANKA KASHINATH	80	44	23	147
71	B190738571	SUDRIK AJINKYA NAVNATH	65	26	16	107
72	B190738572	SUSE NIKITA BALBHIM	64	36	18	118
73	B190738573	TAMBE SONALI MALHARI	56	42	22	120
74	B190738574	TUPKAR SURAJ KISHOR	65	40	20	125
75	B190738575	VHANKADE PIYUSHA VIJAYKUMAR	55	43	22	120
76	B190738576	VIKAS AMARJEET SINGH	51	42	21	114
77	B190738577	WAGHAMODE SANDIP DATTATRAY	60	40	20	120
78	B190738578	WAGHMARE MAYUR RAVINDRA	14	22	15	51
79	B190738579	ZENDE RISHIKESH RAMESH	26	23	15	64
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						<b>68</b>
<b>TOTAL NO. OF STUDENTS</b>						<b>79</b>
<b>CO ATTAINMENT in %</b>						<b>86.07594937</b>
<b>ATTAINMENT LEVEL</b>						<b>3</b>



### Direct Assessment

CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	62.82	86.08	79.10	3.00
CO2	80.77	86.08	84.48	3.00
CO3	58.97	86.08	77.95	3.00
CO4	57.69	86.08	77.56	3.00
CO5	57.69	86.08	77.56	3.00
CO6	42.31	86.08	72.95	2.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

Table1: Target vs attainment (CIE)

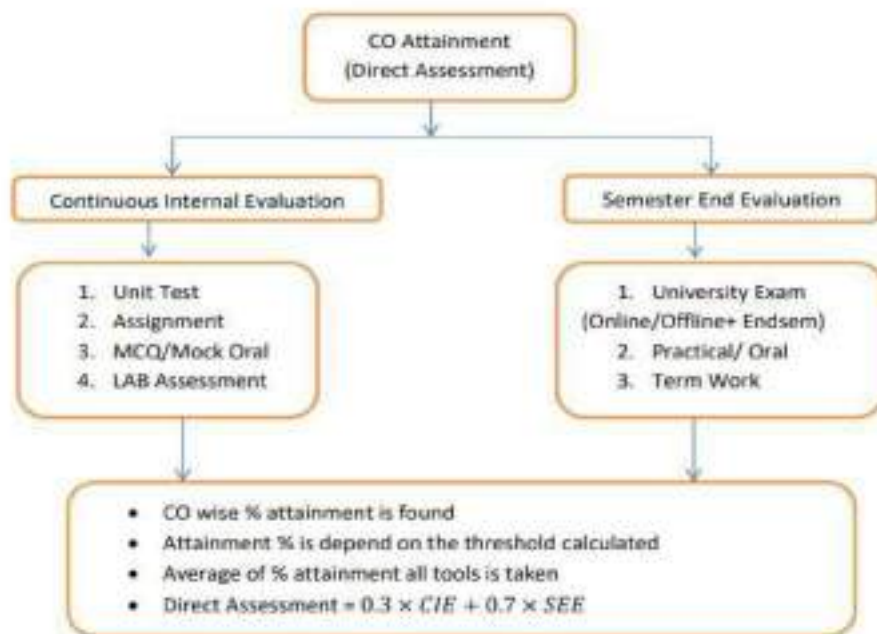
CO	CIE attainment	Gap	Action Planned
1	62.82		
2	80.77		
3	58.97		
4	57.69		
5	57.69		
6	42.31		

Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	77.56		







Subject: Social Computing

CO	CO01	CO02	CO03	CO04	CO05
CO1	Understand Basics of Social Media, Analytics				
CO2	Examine Network Structure for Social Media Data				
CO3	Identify Mining in social media data				
CO4	Discuss the Social Recommendation				
CO5	Compare social media influence				
CO6	Apply Social Media Applications for E-commerce				

CO PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	PO15
CO1	100			100	100	100		100					100	100	100
CO2	100	100	100	100	100	100		100					100	100	100
CO3	100			100	100	100		100					100	100	100
CO4	100	100		100	100	100		100					100	100	100
CO5	100	100	100	100	100	100		100					100	100	100
CO6	100			100	100	100		100					100	100	100
Average	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Assessment Tool and Matrix

Assess Tool (CTE)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	01	01	01	01	01	01
Lab Test	01	01	01	01	01	01

Assess Tool (SEE)	CO1	CO2	CO3	CO4	CO5	CO6
ONLINE	01	01	01	01	01	01
EXERCISE	01	01	01	01	01	01
PROJECT	01	01	01	01	01	01
PRACTICAL	01	01	01	01	01	01
TERMINAL	01	01	01	01	01	01

ATTAINMENT LEVELS

LEVEL 1:	More than 75% Students scoring Threshold Marks (75%-81%-100%)
LEVEL 2:	50% to 75% Students scoring Threshold Marks (50%-75%-75%)
LEVEL 3:	Less than 50% Students scoring Threshold Marks (0%-50%-80%)







**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT: Social Computing**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	TERM WORK	ORAL / PRACTICAL	CO1 TO CO6
			100	25	50	175
			10	10	10	30
1	B190738501	ABHISHEK VINOD PAWSHEKAR	64	22	45	131
2	B190738502	ALKUNTE SHUBHANGI DASHRATH	66	20	40	126
3	B190738503	BANKAR AKSHAY VISHWANATH	63	20	41	124
4	B190738504	BAVALEKAR SUYASH SANTOSH	83	21	43	147
5	B190738505	BEDMUTHA BHAVIK MANOIKUMAR	64	19	38	121
6	B190738506	BHAMBRE ABHISHEK ANAND	67	22	43	132
7	B190738507	BHANGADE RUTUJA PRABHAKAR	64	18	37	119
8	B190738508	BHUJBAL SAYALI CHANDRAKANT	60	20	40	120
9	B190738509	BHUJBAL VAISHNAVI VIJAY	72	20	41	133
10	B190738510	CHAVAN SNEHAL DILIP	50	18	37	105
11	B190738511	CHORDIYA PRAJWAL SANJAY	54	22	43	119
12	B190738512	DHAMAK YASH VILAS	66	18	38	122
13	B190738513	DHAMALE SIDDHESH SHREERAM	51	19	39	109
14	B190738514	DUBALE YOGESHWARI HANUMANT	56	20	41	117
15	B190738515	DUKRE KISHOR RADHAKISAN	70	20	40	130
16	B190738516	FULPAGAR MANSI RAVI	54	17	35	106
17	B190738517	GAIKWAD AKASH KIRAN	54	17	36	107
18	B190738518	GAIKWAD JAYDIP BABURAV	64	16	34	114
19	B190738519	GAIKWAD YASH RAMESH	65	20	41	126
20	B190738520	GAVHANE RAHUL RAJEBHAU	54	17	35	106
21	B190738521	GHUGE RAVI SUBHASH	60	21	42	123
22	B190738522	HANDE RUTUJA DHANANJAY	67	21	42	130
23	B190738523	HASE VAIBHAV SUDAM	55	19	38	112
24	B190738524	HINGE VAISHNAVI SHANKAR	67	20	40	127
25	B190738525	JADHAV AKASH VISHWANATH	56	18	36	110
26	B190738526	JADHAV ANUJA DNYANESHWAR	52	21	43	116
27	B190738527	JAGTAP SATYADEEP SHAHAJI	44	20	39	103
28	B190738528	JAGTAP SIDDHARTH JITENDRA	58	17	37	112
29	B190738529	JAWAK ABHISHEK BHAUSAHEB	51	17	37	105
30	B190738530	JOGDAND DNYANESHWARI VIKRAM	60	21	42	123
31	B190738531	JOSHI PRACHI DASOPANT	75	20	40	135
32	B190738532	KALE POOJA NAVNATH	51	22	44	117
33	B190738533	KAMBLE SAURABH RAVINDRA	46	19	39	104
34	B190738534	KASHID VIKAS SANJAY	66	20	40	126
35	B190738535	KHALATE ANIKET DIPAK	76	21	42	139
36	B190738536	KHAPARE SAKSHI VINOD	62	17	37	116
37	B190738537	KORDE SHRADDHA RAM	46	17	36	99
38	B190738538	KOTASTHANE AKASH NARAYAN	42	17	38	97
39	B190738539	KUMBHAR VAIBHAV VILAS	68	18	37	123
40	B190738540	KUNTURKAR OMKAR UMAKANT	76	21	42	139
41	B190738541	LAHASE ASHUTOSH BHASKAR	43	17	38	98
42	B190738542	MHETRE AKANKSHA SHANKAR	42	17	34	93
43	B190738543	NARKHEDE SWARUPA NARENDRA	37	20	41	98
44	B190738544	NILANGE VAISHNAVI MANOJ	75	22	34	131
45	B190738545	NIRGUDE DNYANESHWAR VIJAY	76	20	40	136
46	B190738546	PARKALE SATYAM DIGAMBAR	86	20	40	146
47	B190738547	PATIL TUSHAR RAJU	85	17	38	140
48	B190738548	PAWAR AISHWARYA GUNVANT	71	21	42	134
49	B190738549	PAWAR GANESH RAJENDRA	83	17	34	134
50	B190738550	PAWAR SUDHIR PRAVIN	52	16	36	104
51	B190738551	PISAL VAIBHAV RAJABHAU	77	21	42	140
52	B190738552	POOJARI AKASH CHANDRAHASA	79	21	41	141

53	B190738553	PRATIKSHA ASHOK WAGH	85	20	39	144
54	B190738554	RAMKAR AKASH RAMESH	68	21	43	132
55	B190738555	RATHOD MANAV PRAMOD	69	21	41	131
56	B190738556	RAUT NIKITA RAJENDRA	79	20	40	139
57	B190738557	RAUT VAISHNAVI MALHARI	60	20	41	121
58	B190738558	SADANANDE SAHIL SANJAY	43	18	37	98
59	B190738559	SAKUNDE SHIVRAJ MARUTI	71	18	37	126
60	B190738560	SALUNKE JAYESH RAMESH	77	20	40	137
61	B190738561	SANDBHOR KISHOR SANDIP	74	20	40	134
62	B190738562	SANGULE VEDANT JIVANDHAR	58	20	39	117
63	B190738563	SANKET SANJAY KAWLE	75	16	38	129
64	B190738564	SHARDUL DHIRAJ KOMAL	5	18	34	57
65	B190738565	SHELAR SARVESHA SUDHIR	52	18	39	109
66	B190738566	SHRADDHA UMESH ADHAV	56	20	40	116
67	B190738567	SIRSAT KUSHAL POPAT	69	22	44	135
68	B190738568	SOMVANSHI DIVYANSH VIVEKRAO	46	21	43	110
69	B190738569	SONAWALE AJAY SAMBHAJI	70	20	41	131
70	B190738570	SONAWANE PRIYANKA KASHINATH	80	21	43	144
71	B190738571	SUDRIK AJINKYA NAVNATH	65	19	39	123
72	B190738572	SUSE NIKITA BALBHIM	64	21	41	126
73	B190738573	TAMBE SONALI MALHARI	56	20	40	116
74	B190738574	TUPKAR SURAJ KISHOR	65	22	42	129
75	B190738575	VHANKADE PIYUSHA VIJAYKUMAR	55	19	39	113
76	B190738576	VIKAS AMARJEET SINGH	51	21	41	113
77	B190738577	WAGHAMODE SANDIP DATTATRAY	60	19	39	118
78	B190738578	WAGHMARE MAYUR RAVINDRA	14	16	36	66
79	B190738579	ZENDE RISHIKESH RAMESH	26	15	34	75
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						67
<b>TOTAL NO. OF STUDENTS</b>						79
<b>CO ATTAINMENT in %</b>						84.81012658
<b>ATTAINMENT LEVEL</b>						3

### Direct Assessment

CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	60.26	84.81	77.44	3.00
CO2	78.21	84.81	82.83	3.00
CO3	53.85	84.81	75.52	3.00
CO4	52.56	84.81	75.14	3.00
CO5	50.00	84.81	74.37	2.00
CO6	42.31	84.81	72.06	2.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	60.26		
2	78.21		
3	53.85		
4	52.56		
5	50.00		
6	42.31		

Table 2: Target vs attainment (SEE)

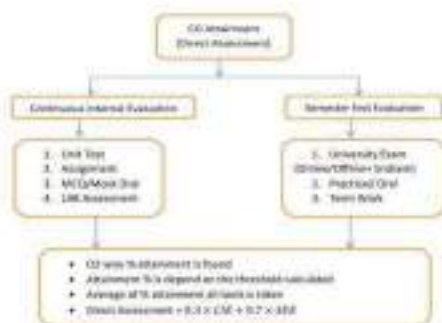
CO	SEE attainment	Gap	Action Planned
1TO6	74.37		



CO PO MAPPING																
CO	CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	
CO1	CO11	1.00			1.00	1.00	1.00		1.00					1.00	1.00	1.00
CO2	CO12	1.00	1.00	1.00	1.00	1.00	1.00		1.00					1.00	1.00	
CO3	CO13	1.00			1.00	1.00	1.00		1.00					1.00	1.00	
CO4	CO14	1.00	1.00		1.00	1.00	1.00		1.00					1.00	1.00	1.00
CO5	CO15	1.00	1.00		1.00	1.00	1.00		1.00					1.00	1.00	1.00
CO6	CO16	1.00		1.00	1.00	1.00	1.00		1.00					1.00	1.00	1.00
Average		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					1.00	1.00	1.00

CO	% CO ATTR	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8		PO9		PO10		PO11		PO12		PSO1		PSO2	
		Max	Att	Max	Att	Max	Att	Max	Att	Max	Att	Max	Att	Max	Att	Max	Att	Max	Att	Max	Att	Max	Att	Max	Att	Max	Att	Max	Att
CO1	77.44	1.00	1.17			1.00	1.00					1.00	1.17			1.00	1.17							1.00	1.17	1.00	1.17	1.00	1.17
CO2	82.83	1.00	1.48	1.00								1.00	1.48	1.00	1.17	1.00										1.00	1.48	1.00	1.17
CO3	75.52	1.00	1.17									1.00	1.17	1.00												1.00	1.17	1.00	1.17
CO4	75.14	1.00	1.17	1.00	1.17							1.00	1.17											1.00	1.17	1.00	1.17	1.00	1.17
CO5	74.37	1.00	1.17	1.00	1.17	1.00	1.17	1.00				1.00	1.17			1.00								1.00	1.17	1.00	1.17	1.00	1.17
CO6	72.06	1.00	1.17	1.00	1.17							1.00	1.17			1.00	1.17							1.00	1.17	1.00	1.17	1.00	1.17
Average		1.00	1.29	1.50	1.68	1.00	1.00					1.00	1.54	1.00		1.00	1.24							1.25	1.48	1.50	1.68	1.00	1.17

ATTAINED PROGRAM VALUES													
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1.29	1.50	1.68	1.00	1.00	1.00	1.24	1.00	1.00	1.00	1.00	1.00	1.25	1.48





Subject: Business Analytics and Intelligence

CO	COO	COO0000000
CO1	Apply conceptual knowledge on Data Discovery Intelligence to create Business Analytics projects	
CO2	Use modeling concepts in Business Intelligence	
CO3	Understand and apply the concepts of Business reports and analysis with the help of visualization	
CO4	Employ the model based decision making using prescriptive analytics	
CO5	Assess the role of analytics and intelligence in business	
CO6	Employ both different Business Intelligence tools and its data sources	

CO PO MAPPING															
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	
CO1	100			100	100	100		100					100	100	100
CO2	100	100	100	100	100	100		100					100	100	100
CO3	100			100	100	100		100					100	100	100
CO4	100	100		100	100	100		100					100	100	100
CO5	100	100	100	100	100	100		100					100	100	100
CO6	100	100	100	100	100	100		100					100	100	100
Average	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Assessment Tool and Matrix

Assess Tool (CTE)	CO1	CO2	CO3	CO4	CO5	CO6
Assignment	01	01	01	01	01	01
Lab Test	01	01	01	01	01	01

Assess Tool (SEE)	CO1	CO2	CO3	CO4	CO5	CO6
ONLINE	01	01	01	01	01	01
EXERCISE	01	01	01	01	01	01
PROJECT	01	01	01	01	01	01
PRACTICAL	01	01	01	01	01	01
TERMINAL	01	01	01	01	01	01

ATTAINMENT LEVELS

LEVEL 1:	More than 75% Students scoring Threshold Marks (75%-81%-100%)
LEVEL 2:	50% to 75% Students scoring Threshold Marks (50%-75%-75%)
LEVEL 3:	Less than 50% Students scoring Threshold Marks (0%-50%-80%)





**EXTERNAL ASSESSMENT RECORD**  
**SUBJECT:Business Analytics and Intelligence**

Sr. No.	Roll No	Name of Student				TOTAL
			THEORY	TERM WORK	ORAL / PRACTICAL	CO1 TO CO6
			100	25	50	175
			10	10	10	30
1	B190738501	ABHISHEK VINOD PAWSHEKAR	63	22	45	130
2	B190738502	ALKUNTE SHUBHANGI DASHRATH	63	20	40	123
3	B190738503	BANKAR AKSHAY VISHWANATH	71	20	41	132
4	B190738504	BAVALEKAR SUYASH SANTOSH	66	21	43	130
5	B190738505	BEDMUTHA BHAVIK MANOIKUMAR	69	19	38	126
6	B190738506	BHAMBRE ABHISHEK ANAND	65	22	43	130
7	B190738507	BHANGADE RUTUJA PRABHAKAR	64	18	37	119
8	B190738508	BHUJBAL SAYALI CHANDRAKANT	59	20	40	119
9	B190738509	BHUJBAL VAISHNAVI VIJAY	59	20	41	120
10	B190738510	CHAVAN SNEHAL DILIP	69	18	37	124
11	B190738511	CHORDIYA PRAJWAL SANJAY	65	22	43	130
12	B190738512	DHAMAK YASH VILAS	68	18	38	124
13	B190738513	DHAMALE SIDDHESH SHREERAM	48	19	39	106
14	B190738514	DUBALE YOGESHWARI HANUMANT	65	20	41	126
15	B190738515	DUKRE KISHOR RADHAKISAN	70	20	40	130
16	B190738516	FULPAGAR MANSI RAVI	56	17	35	108
17	B190738517	GAIKWAD AKASH KIRAN	65	17	36	118
18	B190738518	GAIKWAD JAYDIP BABURAV	65	16	34	115
19	B190738519	GAIKWAD YASH RAMESH	71	20	41	132
20	B190738520	GAVHANE RAHUL RAJEBHAU	59	17	35	111
21	B190738521	GHUGE RAVI SUBHASH	65	21	42	128
22	B190738522	HANDE RUTUJA DHANANJAY	66	21	42	129
23	B190738523	HASE VAIBHAV SUDAM	61	19	38	118
24	B190738524	HINGE VAISHNAVI SHANKAR	72	20	40	132
25	B190738525	JADHAV AKASH VISHWANATH	61	18	36	115
26	B190738526	JADHAV ANUJA DNYANESHWAR	52	21	43	116
27	B190738527	JAGTAP SATYADEEP SHAHAJI	51	20	39	110
28	B190738528	JAGTAP SIDDHARTH JITENDRA	58	17	37	112
29	B190738529	JAWAK ABHISHEK BHAUSAHEB	57	17	37	111
30	B190738530	JOGDAND DNYANESHWARI VIKRAM	62	21	42	125
31	B190738531	JOSHI PRACHI DASOPANT	59	20	40	119
32	B190738532	KALE POOJA NAVNATH	58	22	44	124
33	B190738533	KAMBLE SAURABH RAVINDRA	42	19	39	100
34	B190738534	KASHID VIKAS SANJAY	60	20	40	120
35	B190738535	KHALATE ANIKET DIPAK	63	21	42	126
36	B190738536	KHAPARE SAKSHI VINOD	65	17	37	119
37	B190738537	KORDE SHRADDHA RAM	51	17	36	104
38	B190738538	KOTASTHANE AKASH NARAYAN	49	17	38	104
39	B190738539	KUMBHAR VAIBHAV VILAS	51	18	37	106
40	B190738540	KUNTURKAR OMKAR UMAKANT	65	21	42	128
41	B190738541	LAHASE ASHUTOSH BHASKAR	40	17	38	95
42	B190738542	MHETRE AKANKSHA SHANKAR	45	17	34	96
43	B190738543	NARKHEDE SWARUPA NARENDRA	55	20	41	116
44	B190738544	NILANGE VAISHNAVI MANOJ	66	22	34	122
45	B190738545	NIRGUDE DNYANESHWAR VIJAY	61	20	40	121
46	B190738546	PARKALE SATYAM DIGAMBAR	65	20	40	125
47	B190738547	PATIL TUSHAR RAJU	67	17	38	122
48	B190738548	PAWAR AISHWARYA GUNVANT	69	21	42	132
49	B190738549	PAWAR GANESH RAJENDRA	69	17	34	120
50	B190738550	PAWAR SUDHIR PRAVIN	65	16	36	117
51	B190738551	PISAL VAIBHAV RAJABHAU	65	21	42	128
52	B190738552	POOJARI AKASH CHANDRAHASA	64	21	41	126



53	B190738553	PRATIKSHA ASHOK WAGH	70	20	39	129
54	B190738554	RAMKAR AKASH RAMESH	62	21	43	126
55	B190738555	RATHOD MANAV PRAMOD	65	21	41	127
56	B190738556	RAUT NIKITA RAJENDRA	67	20	40	127
57	B190738557	RAUT VAISHNAVI MALHARI	53	20	41	114
58	B190738558	SADANANDE SAHIL SANJAY	48	18	37	103
59	B190738559	SAKUNDE SHIVRAJ MARUTI	66	18	37	121
60	B190738560	SALUNKE JAYESH RAMESH	70	20	40	130
61	B190738561	SANDBHOR KISHOR SANDIP	65	20	40	125
62	B190738562	SANGULE VEDANT JIVANDHAR	53	20	39	112
63	B190738563	SANKET SANJAY KAWLE	58	16	38	112
64	B190738564	SHARDUL DHIRAJ KOMAL	31	18	34	83
65	B190738565	SHELAR SARVESHA SUDHIR	59	18	39	116
66	B190738566	SHRADDHA UMESH ADHAV	62	20	40	122
67	B190738567	SIRSAT KUSHAL POPAT	65	22	44	131
68	B190738568	SOMVANSHI DIVYANSH VIVEKRAO	42	21	43	106
69	B190738569	SONAWALE AJAY SAMBHAJI	57	20	41	118
70	B190738570	SONAWANE PRIYANKA KASHINATH	76	21	43	140
71	B190738571	SUDRIK AJINKYA NAVNATH	69	19	39	127
72	B190738572	SUSE NIKITA BALBHIM	63	21	41	125
73	B190738573	TAMBE SONALI MALHARI	61	20	40	121
74	B190738574	TUPKAR SURAJ KISHOR	64	22	42	128
75	B190738575	VHANKADE PIYUSHA VIJAYKUMAR	62	19	39	120
76	B190738576	VIKAS AMARJEET SINGH	60	21	41	122
77	B190738577	WAGHAMODE SANDIP DATTATRAY	52	19	39	110
78	B190738578	WAGHMARE MAYUR RAVINDRA	36	16	36	88
79	B190738579	ZENDE RISHIKESH RAMESH	46	15	34	95
<b>NO. OF STUDENTS SCORED MORE THAN THRESHOLD MARKS</b>						70
<b>TOTAL NO. OF STUDENTS</b>						79
<b>CO ATTAINMENT in %</b>						88.60759494
<b>ATTAINMENT LEVEL</b>						3



### Direct Assessment

CO	Continuous Internal Evaluation (CIE) [A]	Semester End Evaluation (SEE) [B]	OVERALL CO ATTAINMENT = (0.3*A+ 0.7 *B)	ATTAINMENT LEVEL
CO1	65.38	88.61	81.64	3.00
CO2	74.36	88.61	84.33	3.00
CO3	52.56	88.61	77.79	3.00
CO4	37.18	88.61	73.18	2.00
CO5	47.44	88.61	76.26	3.00
CO6	47.44	88.61	76.26	3.00

**1. TARGET CIE = 70% of students scoring more than or equal to 70% of max marks**

**2. TARGET S.E.E = AVERAGE OF TARGETS OF S.E.E TOOLS (TH,PR,TW)**

Table1: Target vs attainment (CIE)

CO	CIE attainment	Gap	Action Planned
1	65.38		
2	74.36		
3	52.56		
4	37.18		
5	47.44		
6	47.44		

Table 2: Target vs attainment (SEE)

CO	SEE attainment	Gap	Action Planned
1TO6	76.26		

CO PO MAPPING															
CO	CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1	C4111	1.00			2.00	3.00	1.00		1.00				1.00	2.00	1.00
CO2	C4112	1.00	1.00	1.00	2.00	2.00	1.00		1.00					2.00	1.00
CO3	C4113	1.00			2.00	3.00	1.00		1.00					2.00	1.00
CO4	C4114	1.00	1.00		2.00	3.00	1.00		1.00				1.00	3.00	1.00
CO5	C4115	1.00	1.00		2.00	3.00	1.00		1.00				1.00	3.00	1.00
CO6	C4116	1.00		1.00	1.00	1.00	1.00		1.00				1.00	1.00	1.00
Average		3.00	2.00	2.00	2.00	3.00	2.00		3.00				2.25	2.00	2.00

CO	SGO ATTN	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8		PO9		PO10		PO11		PO12		PO13		PO14		
		Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	Mag	Att	
CO1	81.64	1.00	2.45			0.00	0.00					1.00	1.00			1.00	2.45								1.00	1.00	1.00	1.00	1.00	0.00
CO2	84.33	1.00	2.53	1.00								1.00	2.53	1.00	0.00	1.00											1.00	1.00	1.00	0.00
CO3	77.79	1.00	2.22									1.00	1.50	0.00		1.00											1.00	2.22	1.00	2.22
CO4	73.18	1.00	2.28	1.00	1.40							1.00	1.40												1.00	1.40	1.00	2.28	1.00	2.28
CO5	76.26	1.00	2.29	1.00	1.53	0.00	0.00	2.00				1.00	0.75			1.00									1.00	1.53	2.00	1.24	1.00	0.76
CO6	76.28	1.00	2.29	0.00	0.00							1.00	1.51			1.00	2.29								1.00	2.29	1.00	2.29	1.00	2.29
Average		1.00	2.35	1.50	1.44	0.00	0.00					2.00	1.58	0.00		3.00	2.37								2.25	1.73	2.50	1.94	1.00	1.54

ATTAINED POPNO VALUES														
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	
2.35	1.00	0.00	0.00	0.00	1.50	0.00	2.37	0.00	0.00	0.00	1.73	1.54	1.54	

## **BHIVARABAI SAWANT INSTITUTE OF TECHNOLOGY AND RESEARCH, PUNE**

Gate No. 720/1 & 2, Nagar Road, Wagholi, Pune, Maharashtra 412207  
Approved By AICTE, New Delhi, Govt.Of Maharashtra & Affiliated To Savitribai Phule  
Pune University

Accredited by NAAC with a B++ grade  
and

NBA accredited programs: Electronics and Telecommunication Engineering,  
Information Technology and Electrical Engineering

### **List of Program Outcomes**

**PO1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

**PO2. Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

**PO3. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

**PO4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

**PO5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

**PO6. The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

**PO7. Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the

knowledge of, and need for sustainable development.

**PO8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**PO9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

**PO11. Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO12. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.