GHOUSIA INSTITUTE OF TECHNOLOGY FOR WOMEN

Near Dairy Circle, Hosur Road, Bengaluru-560029, KARNATAKA

Affiliated to VTU., Belagavi, Recognized by Government of Karnataka & A.I.C.T.E., New Delhi

COs-POs Mapping

Grading Scale	
Score	**Level**
< 40% (39 and below)	1
< 60% =>40% (40 to 59)	2
= > 60% (60 and above)	3

Research Methodology & IPR /BRMK557

Semester:	**5**		**Academic Year:**		**2025-26**		
Faculty Name			**Dr.MOHAMMED NAVEED**				
	T1	**T2**	**AS1**	**AS2**	**SP**	**LAB (Record)**	**LAB (Test)**
Course Out Comes-COs							
CO1	Q1/Q2		Q1 - Q5		Q1 - Q14		
CO2	Q3/Q4		Q6 - Q10		Q15 -Q27		
CO3		Q1/Q2		Q1 - Q5	Q28 - Q42		
CO4		Q3		Q6 -Q10	Q43 - Q57		
CO5		Q4		Q11 - Q15	Q58 - Q75		

Note: T1- Test-I; T2-Test-II; T3-Test-III; AS1- Assignment-I; AS2- Assignment-II

SP- Seminar Presentation; Q- Question number as per the record.

Course Outcome			CO1									
CIE Assessment Type			T1	T2	AS1	AS2	SP	LAB				
Ref.Number			Q1/Q2		Q1-Q5		Q1-Q14					
Max.Marks			12		50		25		87	%	Level	
1	1WT23CS001	AFIYA ZUHA	12		50		25		87	100%	3	
2	1WT23CS002	AISHWARYA PATIL	12		50		24		86	99%	3	
3	1WT23CS003	AYMAN SIDDIQA	8		50		24		82	94%	3	
4	1WT23CS004	AKSHAYA J.R.	10		50		24		84	97%	3	
5	1WT23CS005	ALMAS ANJUM	12		50		25		87	100%	3	
6	1WT23CS006	AMEENA A. SYED	11		50		23		84	97%	3	
7	1WT23CS007	AMEENA TAJ	12		50		25		87	100%	3	
8	1WT23CS008	APOORVA H.M.	10		50		23		83	95%	3	
9	1WT23CS009	ASFIYA FATHIMA	12		50		25		87	100%	3	
10	1WT23CS010	ASHWINI	6		50		24		80	92%	3	
11	1WT23CS011	AYESHA QURATUL AIAN	12		50		23		85	98%	3	
12	1WT23CS012	BHOOMIKA M	12		50		23		85	98%	3	
13	1WT23CS013	BINDU D. GUDLAR	12		50		23		85	98%	3	
14	1WT23CS014	BUSHRA FATIMA	12		50		25		87	100%	3	

15	1WT23CS015	CHANDANA HEGDE P.	6		50				56	90%	3
16	1WT23CS016	DEEKSHITA P	12		50				62	100%	3
17	1WT23CS017	DEEPTHI SRINIVASA	5		50				55	89%	3
18	1WT23CS018	DHANUSHREE R	12		50				62	100%	3
19	1WT23CS019	DISHS B G	10		40				50	81%	3
20	1WT23CS020	FARHEEN FIRDOUS	12		50				62	100%	3
21	1WT23CS021	JYOTHI BASAVARAJ KADAKOL	12		50				62	100%	3
22	1WT23CS022	KAVITHA J.A.	12		50				62	100%	3
23	1WT23CS023	KAVYA N	12		50				62	100%	3
24	1WT23CS024	KEERTHANA T R	10		50				60	97%	3
25	1WT23CS025	KEERTHI P.	12		40				52	84%	3
26	1WT23CS026	KULSUM F	12		50				62	100%	3
27	1WT23CS027	MALLIKA N.	9		50				59	95%	3
28	1WT23CS028	MANASA S.	12		50				62	100%	3
29	1WT23CS029	MEGHA G.	4		50				54	87%	3
30	1WT23CS030	N. ZOYA	12		50				62	100%	3
31	1WT23CS032	POOJA RAOSAHEB JADHAV	12		50				62	100%	3
32	1WT23CS033	PRIYA	10		50				60	97%	3

33	1WT23CS034	RABIYA UZMA S. A.	12		50				62	100%	3
34	1WT23CS035	RANJITHA N S	12		50				62	100%	3
35	1WT23CS036	RUCHITHA P	12		50				62	100%	3
36	1WT23CS037	SANA MUNIR	10		50				60	97%	3
37	1WT23CS038	SANDIYADEVI V.	12		50				62	100%	3
38	1WT23CS039	SANIYA SUBHAN	12		50				62	100%	3
39	1WT23CS040	SARA SALITH	12		50				62	100%	3
40	1WT23CS041	SHARADA KUMARI J	10		50				60	97%	3
41	1WT23CS042	SIDRA KALEEM	12		50				62	100%	3
42	1WT23CS043	SIMRAN	12		50				62	100%	3
43	1WT23CS044	SIRI A.C.NAIK	12		50				62	100%	3
44	1WT23CS045	SOUBHAGYA	12		50				62	100%	3
45	1WT23CS046	SUPRITA GURU NAIK	12		50				62	100%	3
46	1WT23CS047	TASMIYA FATHIMA K A	12		50				62	100%	3
47	1WT23CS048	TEJASHWINI	4		50				54	87%	3
48	1WT23CS049	TEJASHWINI KALLAPPA J	12		50				62	100%	3
49	1WT23CS050	UMME KAUNAIN HURERA	12		50				62	100%	3
50	1WT23CS051	UMME KULSUM A	12		50				62	100%	3

51	1WT23CS052	UMME KULSUM T	6		50				56	90%	3
52	1WT23CS053	VARSHITA A S	6		50				56	90%	3
53	1WT23CS054	VIJAYA LAKSHMI R	0		50				50	81%	3
54	1WT23CS055	VYSHALINI	6		50				56	90%	3
55	1WT23CS056	WAJEEHA KHAN	12		50				62	100%	3
56	1WT23CS057	ZABRAIN TARANNUM	4		50				54	87%	3
57	1WT23CS058	ZAINAB TAJ	10		50				60	97%	3
58	1WT23CS059	ZUHA ZAMAN	4		50				54	87%	3
59	1WT24CS400	AYESHA FIRDOSE	0		0				0	0%	3
60	1WT24CS401	NAZIYA SIDDIQUA NIMRA	12		50				62	100%	3
61	1WT24CS402	SANIYA	12		50				62	100%	3
62	1WT23IS001	ANKITHA GURU G K	12		50				62	100%	3
63	1WT23IS002	CHANDANA T	9		50				59	95%	3
64	1WT23IS003	DIVYASHREE E	9		50				59	95%	3
65	1WT23IS004	INDUMATHI R	12		50				62	100%	3
66	1WT23IS005	JYOTHI MANJUNATH G	10		50				60	97%	3
67	1WT23IS006	KEERTHANA R	12		50				62	100%	3
68	1WT23IS007	MEHAK TAJ	12		50				62	100%	3

69	1WT23IS008	MONIKA R	7		50				57	92%	3
70	1WT23IS009	PRATHAVI S P	6		50				56	90%	3
71	1WT23IS010	RITU V CHETTY	11		50				61	98%	3
72	1WT23IS011	SARITHA A	10		50				60	97%	3
73	1WT23IS012	SHAIK ATIKA KULSUM	12		50				62	100%	3
74	1WT23IS013	SUSHMITHA R	12		50				62	100%	3
75	1WT23IS014	VARSHINI V H	12		50				62	100%	3
							Average % Value			**97%**	
Percentage of Students achieved CO1					**97%**						
Average Level of Grading.					**3**						

Total No. of Students	**75**			
Course Outcomes	**Average Level Grading**	3	**2**	**1**
CO1	3	75/75 = 100%	0/75 = 0%	0/75 = 0%

Course Outcome			CO2									
CIE Assessment Type			T1	T2	AS1	AS2	SP	LAB				
Ref.Number			Q3/Q4		Q6-Q10		Q15-Q27					
Max.Marks			13		50		25		88	%	Level	
1	1WT23CS001	AFIYA ZUHA	13		50				63	100%	3	
2	1WT23CS002	AISHWARYA PATIL	13		50				63	100%	3	
3	1WT23CS003	AYMAN SIDDIQA	13		50				63	100%	3	
4	1WT23CS004	AKSHAYA J.R.	13		50				63	100%	3	
5	1WT23CS005	ALMAS ANJUM	13		50				63	100%	3	
6	1WT23CS006	AMEENA A. SYED	12		50				62	98%	3	
7	1WT23CS007	AMEENA TAJ	13		50				63	100%	3	
8	1WT23CS008	APOORVA H.M.	13		50				63	100%	3	
9	1WT23CS009	ASFIYA FATHIMA	13		50				63	100%	3	
10	1WT23CS010	ASHWINI	12		50				62	98%	3	
11	1WT23CS011	AYESHA QURATUL AIAN	12		50				62	98%	3	
12	1WT23CS012	BHOOMIKA M	12		50				62	98%	3	
13	1WT23CS013	BINDU D. GUDLAR	13		50				63	100%	3	
14	1WT23CS014	BUSHRA FATIMA	12		50				62	98%	3	

15	1WT23CS015	CHANDANA HEGDE P.	8		50		24		82	93%	3
16	1WT23CS016	DEEKSHITA P	13		50		24		87	99%	3
17	1WT23CS017	DEEPTHI SRINIVASA	11		50		23		84	95%	3
18	1WT23CS018	DHANUSHREE R	13		50		24		87	99%	3
19	1WT23CS019	DISHS B G	10		40		23		73	83%	3
20	1WT23CS020	FARHEEN FIRDOUS	10		50		25		85	97%	3
21	1WT23CS021	JYOTHI BASAVARAJ KADAKOL	13		50		23		86	98%	3
22	1WT23CS022	KAVITHA J.A.	9		50		23		82	93%	3
23	1WT23CS023	KAVYA N	12		50		23		85	97%	3
24	1WT23CS024	KEERTHANA T R	13		50		23		86	98%	3
25	1WT23CS025	KEERTHI P.	8		40		24		72	82%	3
26	1WT23CS026	KULSUM F	13		50		24		87	99%	3
27	1WT23CS027	MALLIKA N.	12		50		23		85	97%	3
28	1WT23CS028	MANASA S.	13		50				63	100%	3
29	1WT23CS029	MEGHA G.	12		50				62	98%	3
30	1WT23CS030	N. ZOYA	12		50				62	98%	3
31	1WT23CS032	POOJA RAOSAHEB JADHAV	13		50				63	100%	3
32	1WT23CS033	PRIYA	11		50				61	97%	3

33	1WT23CS034	RABIYA UZMA S. A.	13		50				63	100%	3
34	1WT23CS035	RANJITHA N S	13		50				63	100%	3
35	1WT23CS036	RUCHITHA P	13		50				63	100%	3
36	1WT23CS037	SANA MUNIR	13		50				63	100%	3
37	1WT23CS038	SANDIYADEVI V.	13		50				63	100%	3
38	1WT23CS039	SANIYA SUBHAN	12		50				62	98%	3
39	1WT23CS040	SARA SALITH	13		50				63	100%	3
40	1WT23CS041	SHARADA KUMARI J	8		50				58	92%	3
41	1WT23CS042	SIDRA KALEEM	13		50				63	100%	3
42	1WT23CS043	SIMRAN	13		50				63	100%	3
43	1WT23CS044	SIRI A.C.NAIK	0		50				50	79%	3
44	1WT23CS045	SOUBHAGYA	12		50				62	98%	3
45	1WT23CS046	SUPRITA GURU NAIK	4		50				54	86%	3
46	1WT23CS047	TASMIYA FATHIMA K A	12		50				62	98%	3
47	1WT23CS048	TEJASHWINI	12		50				62	98%	3
48	1WT23CS049	TEJASHWINI KALLAPPA J	10		50				60	95%	3
49	1WT23CS050	UMME KAUNAIN HURERA	13		50				63	100%	3
50	1WT23CS051	UMME KULSUM A	13		50				63	100%	3

51	1WT23CS052	UMME KULSUM T	5		50				55	87%	3
52	1WT23CS053	VARSHITA A S	13		50				63	100%	3
53	1WT23CS054	VIJAYA LAKSHMI R	9		50				59	94%	3
54	1WT23CS055	VYSHALINI	7		50				57	90%	3
55	1WT23CS056	WAJEEHA KHAN	13		50				63	100%	3
56	1WT23CS057	ZABRAIN TARANNUM	10		50				60	95%	3
57	1WT23CS058	ZAINAB TAJ	13		50				63	100%	3
58	1WT23CS059	ZUHA ZAMAN	9		50				59	94%	3
59	1WT24CS400	AYESHA FIRDOSE	0		0				0	0%	3
60	1WT24CS401	NAZIYA SIDDIQUA NIMRA	13		50				63	100%	3
61	1WT24CS402	SANIYA	12		50				62	98%	3
62	1WT23IS001	ANKITHA GURU G K	5		50				55	87%	3
63	1WT23IS002	CHANDANA T	13		50				63	100%	3
64	1WT23IS003	DIVYASHREE E	12		50				62	98%	3
65	1WT23IS004	INDUMATHI R	13		50				63	100%	3
66	1WT23IS005	JYOTHI MANJUNATH G	10		50				60	95%	3
67	1WT23IS006	KEERTHANA R	12		50				62	98%	3
68	1WT23IS007	MEHAK TAJ	12		50				62	98%	3

69	1WT23IS008	MONIKA R	7		50				57	90%	3
70	1WT23IS009	PRATHAVI S P	8		50				58	92%	3
71	1WT23IS010	RITU V CHETTY	11		50				61	97%	3
72	1WT23IS011	SARITHA A	12		50				62	98%	3
73	1WT23IS012	SHAIK ATIKA KULSUM	13		50				63	100%	3
74	1WT23IS013	SUSHMITHA R	13		50				63	100%	3
75	1WT23IS014	VARSHINI V H	8		50				58	92%	3
							Average % Value			98%	
Percentage of Students achieved CO2					98%						
Average Level of Grading.					3						

Total No. of Students	75			
Course Outcomes	Average Level Grading	3	2	1
CO2	3	75/75 = 100%	0/75 = 0%	0/75 = 0%

Course Outcome			CO3									
CIE Assessment Type			T1	T2	AS1	AS2	SP	LAB				
Ref.Number				Q1/Q2		Q1/Q5	Q28-Q42					
Max.Marks				12		50	25		87	%	Level	
1	1WT23CS001	AFIYA ZUHA		12		50			62	100%	3	
2	1WT23CS002	AISHWARYA PATIL		12		40			52	84%	3	
3	1WT23CS003	AYMAN SIDDIQA		12		50			62	100%	3	
4	1WT23CS004	AKSHAYA J.R.		11		40			51	82%	3	
5	1WT23CS005	ALMAS ANJUM		12		40			52	84%	3	
6	1WT23CS006	AMEENA A. SYED		12		50			62	100%	3	
7	1WT23CS007	AMEENA TAJ		12		50			62	100%	3	
8	1WT23CS008	APOORVA H.M.		11		50			61	98%	3	
9	1WT23CS009	ASFIYA FATHIMA		12		50			62	100%	3	
10	1WT23CS010	ASHWINI		12		50			62	100%	3	
11	1WT23CS011	AYESHA QURATUL AIAN		12		40			52	84%	3	
12	1WT23CS012	BHOOMIKA M		12		50			62	100%	3	
13	1WT23CS013	BINDU D. GUDLAR		12		50			62	100%	3	
14	1WT23CS014	BUSHRA FATIMA		12		50			62	100%	3	

15	1WT23CS015	CHANDANA HEGDE P.		12		40			52	84%	3
16	1WT23CS016	DEEKSHITA P		11		50			61	98%	3
17	1WT23CS017	DEEPTHI SRINIVASA		12		50			62	100%	3
18	1WT23CS018	DHANUSHREE R		12		40			52	84%	3
19	1WT23CS019	DISHS B G		12		50			62	100%	3
20	1WT23CS020	FARHEEN FIRDOUS		12		50			62	100%	3
21	1WT23CS021	JYOTHI BASAVARAJ K		12		50			62	100%	3
22	1WT23CS022	KAVITHA J.A.		12		50			62	100%	3
23	1WT23CS023	KAVYA N		12		50			62	100%	3
24	1WT23CS024	KEERTHANA T R		12		40			52	84%	3
25	1WT23CS025	KEERTHI P.		10		40			50	81%	3
26	1WT23CS026	KULSUM F		12		50			62	100%	3
27	1WT23CS027	MALLIKA N.		12		45			57	92%	3
28	1WT23CS028	MANASA S.		12		50	24		86	99%	3
29	1WT23CS029	MEGHA G.		12		50	23		85	98%	3
30	1WT23CS030	N. ZOYA		12		40	25		77	89%	3
31	1WT23CS032	POOJA RAOSAHEB JADHAV		10		50	24		84	97%	3
32	1WT23CS033	PRIYA		10		50	24		84	97%	3

33	1WT23CS034	RABIYA UZMA S. A.		12		50	24		86	99%	3
34	1WT23CS035	RANJITHA N S		12		50	24		86	99%	3
35	1WT23CS036	RUCHITHA P		12		50	24		86	99%	3
36	1WT23CS037	SANA MUNIR		12		50	24		86	99%	3
37	1WT23CS038	SANDIYADEVI V.		12		40	24		76	87%	3
38	1WT23CS039	SANIYA SUBHAN		12		40	25		77	89%	3
39	1WT23CS040	SARA SALITH		12		50	25		87	100%	3
40	1WT23CS041	SHARADA KUMARI J		7		50	24		81	93%	3
41	1WT23CS042	SIDRA KALEEM		12		45	25		82	94%	3
42	1WT23CS043	SIMRAN		12		40	25		77	89%	3
43	1WT23CS044	SIRI A.C.NAIK		0		40			40	65%	3
44	1WT23CS045	SOUBHAGYA		12		45			57	92%	3
45	1WT23CS046	SUPRITA GURU NAIK		4		45			49	79%	3
46	1WT23CS047	TASMIYA FATHIMA K A		12		50			62	100%	3
47	1WT23CS048	TEJASHWINI		12		50			62	100%	3
48	1WT23CS049	TEJASHWINI KALLAPPA J		10		50			60	97%	3
49	1WT23CS050	UMME KAUNAIN HURERA		13		50			63	102%	3
50	1WT23CS051	UMME KULSUM A		13		50			63	102%	3

51	1WT23CS052	UMME KULSUM T		5		40			45	73%	3
52	1WT23CS053	VARSHITA A S		13		50			63	102%	3
53	1WT23CS054	VIJAYA LAKSHMI R		9		45			54	87%	3
54	1WT23CS055	VYSHALINI		7		45			52	84%	3
55	1WT23CS056	WAJEEHA KHAN		13		50			63	102%	3
56	1WT23CS057	ZABRAIN TARANNUM		10		50			60	97%	3
57	1WT23CS058	ZAINAB TAJ		13		50			63	102%	3
58	1WT23CS059	ZUHA ZAMAN		9		40			49	79%	3
59	1WT24CS400	AYESHA FIRDOSE		0		45			45	73%	3
60	1WT24CS401	NAZIYA SIDDIQUA NIMRA		13		40			53	85%	3
61	1WT24CS402	SANIYA		12		45			57	92%	3
62	1WT23IS001	ANKITHA GURU G K		5		40			45	73%	3
63	1WT23IS002	CHANDANA T		13		50			63	102%	3
64	1WT23IS003	DIVYASHREE E		12		45			57	92%	3
65	1WT23IS004	INDUMATHI R		13		50			63	102%	3
66	1WT23IS005	JYOTHI MANJUNATH G		10		50			60	97%	3
67	1WT23IS006	KEERTHANA R		12		50			62	100%	3
68	1WT23IS007	MEHAK TAJ		12		40			52	84%	3

69	1WT23IS008	MONIKA R		7		40			47	76%	3
70	1WT23IS009	PRATHAVI S P		8		50			58	94%	3
71	1WT23IS010	RITU V CHETTY		11		0			11	18%	3
72	1WT23IS011	SARITHA A		12		38			50	81%	3
73	1WT23IS012	SHAIK ATIKA KULSUM		13		40			53	85%	3
74	1WT23IS013	SUSHMITHA R		13		50			63	102%	3
75	1WT23IS014	VARSHINI V H		8		50			58	94%	3
							Average % Value			**95%**	
Percentage of Students achieved CO3					**95%**						
Average Level of Grading.					**3**						

Total No. of Students	**75**			
Course Outcomes	**Average Level Grading**	3	**2**	**1**
CO3	3	75/75 = 100%	0/75 = 0%	0/75 = 0%

Course Outcome			CO4									
CIE Assessment Type			T1	T2	AS1	AS2	SP	LAB				
Ref.Number				Q3		Q6/Q10	Q43-Q57					
Max.Marks				13		50	25		88	%	Level	
1	1WT23CS001	AFIYA ZUHA		13		50			63	100%	3	
2	1WT23CS002	AISHWARYA PATIL				40			40	80%	3	
3	1WT23CS003	AYMAN SIDDIQA				50			50	100%	3	
4	1WT23CS004	AKSHAYA J.R.				40			40	80%	3	
5	1WT23CS005	ALMAS ANJUM		13		40			53	84%	3	
6	1WT23CS006	AMEENA A. SYED		13		50			63	100%	3	
7	1WT23CS007	AMEENA TAJ		13		50			63	100%	3	
8	1WT23CS008	APOORVA H.M.				50			50	100%	3	
9	1WT23CS009	ASFIYA FATHIMA		13		50			63	100%	3	
10	1WT23CS010	ASHWINI				50			50	100%	3	
11	1WT23CS011	AYESHA QURATUL AIAN		13		40			53	84%	3	
12	1WT23CS012	BHOOMIKA M				50			50	100%	3	
13	1WT23CS013	BINDU D. GUDLAR		13		50			63	100%	3	
14	1WT23CS014	BUSHRA FATIMA		13		50			63	100%	3	

15	1WT23CS015	CHANDANA HEGDE P.		13		40			53	84%	3
16	1WT23CS016	DEEKSHITA P		12		50			62	98%	3
17	1WT23CS017	DEEPTHI SRINIVASA				50			50	100%	3
18	1WT23CS018	DHANUSHREE R				40			40	80%	3
19	1WT23CS019	DISHS B G		13		50			63	100%	3
20	1WT23CS020	FARHEEN FIRDOUS		11		50			61	97%	3
21	1WT23CS021	JYOTHI BASAVARAJ K		12		50			62	98%	3
22	1WT23CS022	KAVITHA J.A.		13		50			63	100%	3
23	1WT23CS023	KAVYA N		13		50			63	100%	3
24	1WT23CS024	KEERTHANA T R				40			40	80%	3
25	1WT23CS025	KEERTHI P.		10		40			50	79%	3
26	1WT23CS026	KULSUM F		13		50			63	100%	3
27	1WT23CS027	MALLIKA N.				45			45	90%	3
28	1WT23CS028	MANASA S.		8		50			58	92%	3
29	1WT23CS029	MEGHA G.		13		50			63	100%	3
30	1WT23CS030	N. ZOYA		13		40			53	84%	3
31	1WT23CS032	POOJA RAOSAHEB JADHAV				50			50	100%	3
32	1WT23CS033	PRIYA				50			50	100%	3

33	1WT23CS034	RABIYA UZMA S. A.		13		50			63	100%	3
34	1WT23CS035	RANJITHA N S		13		50			63	100%	3
35	1WT23CS036	RUCHITHA P		13		50			63	100%	3
36	1WT23CS037	SANA MUNIR		13		50			63	100%	3
37	1WT23CS038	SANDIYADEVI V.				40			40	80%	3
38	1WT23CS039	SANIYA SUBHAN		13		40			53	84%	3
39	1WT23CS040	SARA SALITH		13		50			63	100%	3
40	1WT23CS041	SHARADA KUMARI J		13		50			63	100%	3
41	1WT23CS042	SIDRA KALEEM				45			45	90%	3
42	1WT23CS043	SIMRAN		13		40			53	84%	3
43	1WT23CS044	SIRI A.C.NAIK		13		40	0		53	60%	3
44	1WT23CS045	SOUBHAGYA				45	24		69	92%	3
45	1WT23CS046	SUPRITA GURU NAIK		13		45	23		81	92%	3
46	1WT23CS047	TASMIYA FATHIMA K A				50	25		75	100%	3
47	1WT23CS048	TEJASHWINI				50	25		75	100%	3
48	1WT23CS049	TEJASHWINI KALLAPPA J				50	23		73	97%	3
49	1WT23CS050	UMME KAUNAIN HURERA		10		50	24		84	95%	3
50	1WT23CS051	UMME KULSUM A		13		50	24		87	99%	3

51	1WT23CS052	UMME KULSUM T		8		40	24		72	82%	3
52	1WT23CS053	VARSHITA A S		13		50	24		87	99%	3
53	1WT23CS054	VIJAYA LAKSHMI R		11		45	23		79	90%	3
54	1WT23CS055	VYSHALINI				45	23		68	91%	3
55	1WT23CS056	WAJEEHA KHAN				50	24		74	99%	3
56	1WT23CS057	ZABRAIN TARANNUM				50	23		73	97%	3
57	1WT23CS058	ZAINAB TAJ				50	25		75	100%	3
58	1WT23CS059	ZUHA ZAMAN				40			40	80%	3
59	1WT24CS400	AYESHA FIRDOSE		13		45			58	92%	3
60	1WT24CS401	NAZIYA SIDDIQUA NIMRA				40			40	80%	3
61	1WT24CS402	SANIYA				45			45	90%	3
62	1WT23IS001	ANKITHA GURU G K				40			40	80%	3
63	1WT23IS002	CHANDANA T		8		50			58	92%	3
64	1WT23IS003	DIVYASHREE E		12		45			57	90%	3
65	1WT23IS004	INDUMATHI R		13		50			63	100%	3
66	1WT23IS005	JYOTHI MANJUNATH G		7		50			57	90%	3
67	1WT23IS006	KEERTHANA R				50			50	100%	3
68	1WT23IS007	MEHAK TAJ				40			40	80%	3

69	1WT23IS008	MONIKA R		5		40			45	71%	3
70	1WT23IS009	PRATHAVI S P				50			50	100%	3
71	1WT23IS010	RITU V CHETTY				0			0	0%	3
72	1WT23IS011	SARITHA A		5		38			43	68%	3
73	1WT23IS012	SHAIK ATIKA KULSUM				40			40	80%	3
74	1WT23IS013	SUSHMITHA R		13		50			63	100%	3
75	1WT23IS014	VARSHINI V H				50			50	100%	3
							Average % Value			94%	
Percentage of Students achieved CO4					94%						
Average Level of Grading.					3						

Total No. of Students	75			
Course Outcomes	Average Level Grading	3	2	1
CO4	3	75/75 = 100%	0/75 = 0%	0/75 = 0%

Course Outcome			CO5									
CIE Assessment Type			T1	T2	AS1	AS2	SP	LAB				
Ref.Number				Q4		Q11/Q15	Q58-Q75					
Max.Marks				13		50	25		88	%	Level	
1	1WT23CS001	AFIYA ZUHA				50			50	100%	3	
2	1WT23CS002	AISHWARYA PATIL		13		40			53	84%	3	
3	1WT23CS003	AYMAN SIDDIQA		13		50			63	100%	3	
4	1WT23CS004	AKSHAYA J.R.		13		40			53	84%	3	
5	1WT23CS005	ALMAS ANJUM				40			40	80%	3	
6	1WT23CS006	AMEENA A. SYED				50			50	100%	3	
7	1WT23CS007	AMEENA TAJ				50			50	100%	3	
8	1WT23CS008	APOORVA H.M.		10		50			60	95%	3	
9	1WT23CS009	ASFIYA FATHIMA				50			50	100%	3	
10	1WT23CS010	ASHWINI		13		50			63	100%	3	
11	1WT23CS011	AYESHA QURATUL AIAN				40			40	80%	3	
12	1WT23CS012	BHOOMIKA M		13		50			63	100%	3	
13	1WT23CS013	BINDU D. GUDLAR				50			50	100%	3	
14	1WT23CS014	BUSHRA FATIMA				50			50	100%	3	

15	1WT23CS015	CHANDANA HEGDE P.				40			40	80%	3
16	1WT23CS016	DEEKSHITA P				50			50	100%	3
17	1WT23CS017	DEEPTHI SRINIVASA		12		50			62	98%	3
18	1WT23CS018	DHANUSHREE R		13		40			53	84%	3
19	1WT23CS019	DISHS B G				50			50	100%	3
20	1WT23CS020	FARHEEN FIRDOUS				50			50	100%	3
21	1WT23CS021	JYOTHI BASAVARAJ K				50			50	100%	3
22	1WT23CS022	KAVITHA J.A.				50			50	100%	3
23	1WT23CS023	KAVYA N				50			50	100%	3
24	1WT23CS024	KEERTHANA T R		11		40			51	81%	3
25	1WT23CS025	KEERTHI P.				40			40	80%	3
26	1WT23CS026	KULSUM F				50			50	100%	3
27	1WT23CS027	MALLIKA N.		13		45			58	92%	3
28	1WT23CS028	MANASA S.				50			50	100%	3
29	1WT23CS029	MEGHA G.				50			50	100%	3
30	1WT23CS030	N. ZOYA				40			40	80%	3
31	1WT23CS032	POOJA RAOSAHEB JADHAV		13		50			63	100%	3
32	1WT23CS033	PRIYA		13		50			63	100%	3

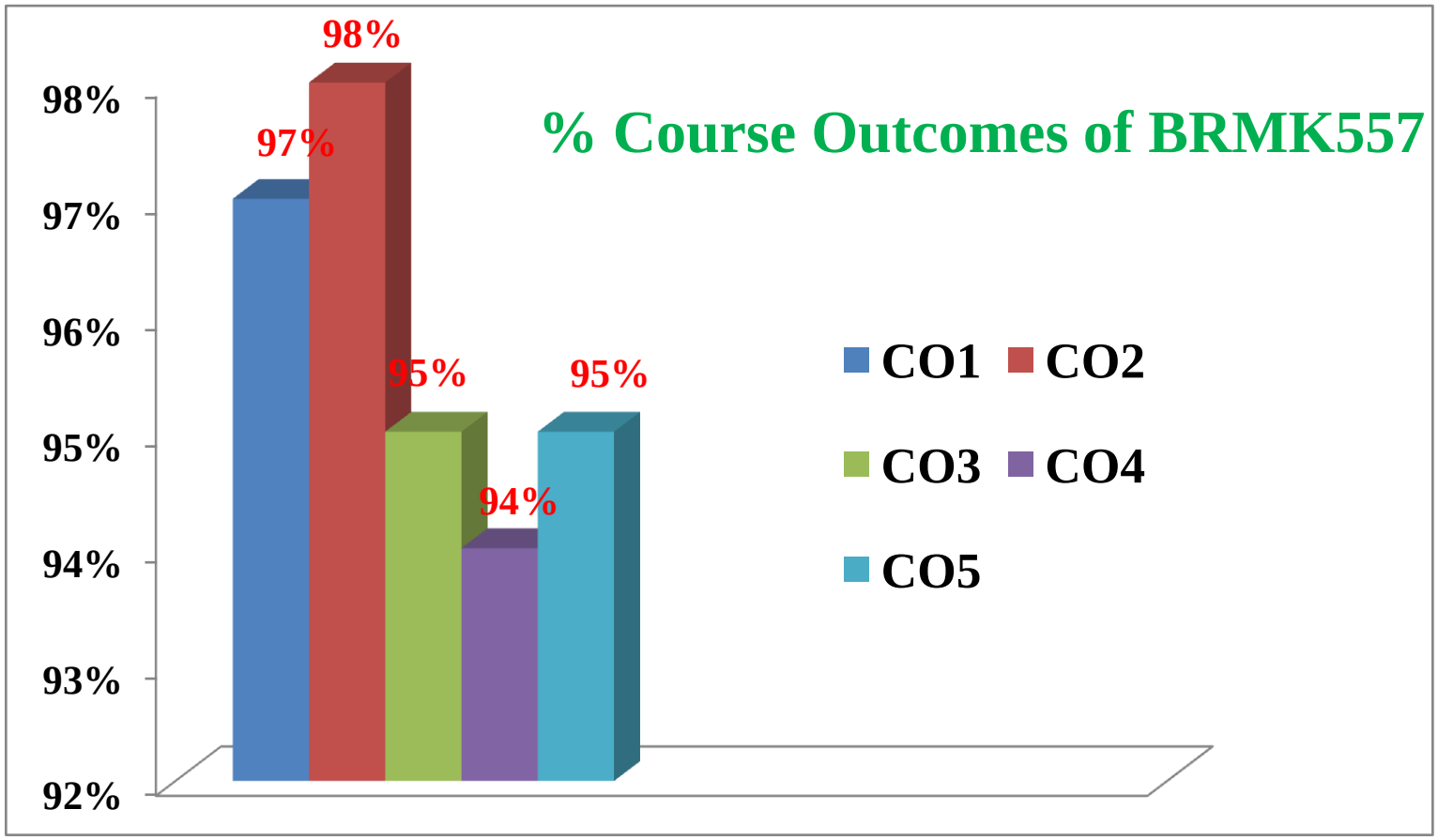
33	1WT23CS034	RABIYA UZMA S. A.				50			50	100%	3
34	1WT23CS035	RANJITHA N S				50			50	100%	3
35	1WT23CS036	RUCHITHA P				50			50	100%	3
36	1WT23CS037	SANA MUNIR				50			50	100%	3
37	1WT23CS038	SANDIYADEVI V.		13		40			53	84%	3
38	1WT23CS039	SANIYA SUBHAN				40			40	80%	3
39	1WT23CS040	SARA SALITH				50			50	100%	3
40	1WT23CS041	SHARADA KUMARI J				50			50	100%	3
41	1WT23CS042	SIDRA KALEEM		13		45			58	92%	3
42	1WT23CS043	SIMRAN				40			40	80%	3
43	1WT23CS044	SIRI A.C.NAIK				40			40	80%	3
44	1WT23CS045	SOUBHAGYA		11		45			56	89%	3
45	1WT23CS046	SUPRITA GURU NAIK				45			45	90%	3
46	1WT23CS047	TASMIYA FATHIMA K A		13		50			63	100%	3
47	1WT23CS048	TEJASHWINI		13		50			63	100%	3
48	1WT23CS049	TEJASHWINI KALLAPPA J		13		50			63	100%	3
49	1WT23CS050	UMME KAUNAIN HURERA				50			50	100%	3
50	1WT23CS051	UMME KULSUM A				50			50	100%	3

51	1WT23CS052	UMME KULSUM T				40			40	80%	3
52	1WT23CS053	VARSHITA A S				50			50	100%	3
53	1WT23CS054	VIJAYA LAKSHMI R				45			45	90%	3
54	1WT23CS055	VYSHALINI		13		45			58	92%	3
55	1WT23CS056	WAJEEHA KHAN		13		50			63	100%	3
56	1WT23CS057	ZABRAIN TARANNUM		10		50			60	95%	3
57	1WT23CS058	ZAINAB TAJ		13		50			63	100%	3
58	1WT23CS059	ZUHA ZAMAN				40	23		63	84%	3
59	1WT24CS400	AYESHA FIRDOSE		10		45	15		70	80%	3
60	1WT24CS401	NAZIYA SIDDIQUA NIMRA		13		40	25		78	89%	3
61	1WT24CS402	SANIYA		12		45	24		81	92%	3
62	1WT23IS001	ANKITHA GURU G K		11		40	0		51	58%	3
63	1WT23IS002	CHANDANA T				50	23		73	97%	3
64	1WT23IS003	DIVYASHREE E				45	23		68	91%	3
65	1WT23IS004	INDUMATHI R				50	24		74	99%	3
66	1WT23IS005	JYOTHI MANJUNATH G				50	23		73	97%	3
67	1WT23IS006	KEERTHANA R		11		50	23		84	95%	3
68	1WT23IS007	MEHAK TAJ		13		40	24		77	88%	3

69	1WT23IS008	MONIKA R				40	23		63	84%	3
70	1WT23IS009	PRATHAVI S P		11		50	23		84	95%	3
71	1WT23IS010	RITU V CHETTY		8		0	0		8	9%	3
72	1WT23IS011	SARITHA A				38	23		61	81%	3
73	1WT23IS012	SHAIK ATIKA KULSUM		13		40	24		77	88%	3
74	1WT23IS013	SUSHMITHA R				50	23		73	97%	3
75	1WT23IS014	VARSHINI V H		9		50	23		82	93%	3
							Average % Value			**95%**	
Percentage of Students achieved CO5					**95%**						
Average Level of Grading.					**3**						

Total No. of Students	**75**			
Course Outcomes	**Average Level Grading**	3	**2**	**1**
CO5	3	75/75 = 100%	0/75 = 0%	0/75 = 0%

Total No. of Students		75		
Course Outcomes	% Grading	% Distribution		
		3	2	1
CO1	97%	75/75 = 100%	0/75 = 0%	0/75 = 0%
CO2	98%	75/75 = 100%	0/75 = 0%	0/75 = 0%
CO3	95%	75/75 = 100%	0/75 = 0%	0/75 = 0%
CO4	94%	75/75 = 100%	0/75 = 0%	0/75 = 0%
CO5	95%	75/75 = 100%	0/75 = 0%	0/75 = 0%
Average %	96%			


% Course Outcomes of BRMK557
98%
97%
96%
95%
94%
93%
92%
97%
98%
95%
94%
95%
CO1
CO2
CO3
CO4
CO5

Course Outcomes by SEE Asessment

Max.Marks			50	100	Level
1	1WT23CS001	AFIYA ZUHA	38	76	3
2	1WT23CS002	AISHWARYA PATIL	29	58	2
3	1WT23CS003	AYMAN SIDDIQA	42	84	3
4	1WT23CS004	AKSHAYA J.R.	30	60	3
5	1WT23CS005	ALMAS ANJUM	18	36	1
6	1WT23CS006	AMEENA A. SYED	26	52	2
7	1WT23CS007	AMEENA TAJ	24	48	2
8	1WT23CS008	APOORVA H.M.	38	76	3
9	1WT23CS009	ASFIYA FATHIMA	29	58	2
10	1WT23CS010	ASHWINI	28	56	2
11	1WT23CS011	AYESHA QURATUL AIAN	38	76	3
12	1WT23CS012	BHOOMIKA M	36	72	3
13	1WT23CS013	BINDU D. GUDLAR	33	66	3
14	1WT23CS014	BUSHRA FATIMA	39	78	3
15	1WT23CS015	CHANDANA HEGDE P.	26	52	2
16	1WT23CS016	DEEKSHITA P	31	62	3
17	1WT23CS017	DEEPTHI SRINIVASA	23	46	2
18	1WT23CS018	DHANUSHREE R	34	68	3

19	1WT23CS019	DISHS B G	32	64	3
20	1WT23CS020	FARHEEN FIRDOUS	24	48	2
21	1WT23CS021	JYOTHI BASAVARAJ K	44	88	3
22	1WT23CS022	KAVITHA J.A.	30	60	3
23	1WT23CS023	KAVYA N	37	74	3
24	1WT23CS024	KEERTHANA T R	24	48	2
25	1WT23CS025	KEERTHI P.	21	42	2
26	1WT23CS026	KULSUM F	41	82	3
27	1WT23CS027	MALLIKA N.	46	92	3
28	1WT23CS028	MANASA S.	28	56	2
29	1WT23CS029	MEGHA G.	25	50	2
30	1WT23CS030	N. ZOYA	37	74	3
31	1WT23CS032	POOJA RAOSAHEB JADHAV	33	66	3
32	1WT23CS033	PRIYA	31	62	3
33	1WT23CS034	RABIYA UZMA S. A.	35	70	3
34	1WT23CS035	RANJITHA N S	35	70	3
35	1WT23CS036	RUCHITHA P	46	92	3
36	1WT23CS037	SANA MUNIR	34	68	3
37	1WT23CS038	SANDIYADEVI V.	38	76	3
38	1WT23CS039	SANIYA SUBHAN	19	38	1

39	1WT23CS040	SARA SALITH	41	82	3
40	1WT23CS041	SHARADA KUMARI J	24	48	2
41	1WT23CS042	SIDRA KALEEM	38	76	3
42	1WT23CS043	SIMRAN	38	76	3
43	1WT23CS044	SIRI A.C.NAIK	29	58	2
44	1WT23CS045	SOUBHAGYA	38	76	3
45	1WT23CS046	SUPRITA GURU NAIK	18	36	1
46	1WT23CS047	TASMIYA FATHIMA K A	36	72	3
47	1WT23CS048	TEJASHWINI	23	46	2
48	1WT23CS049	TEJASHWINI KALLAPPA J	41	82	3
49	1WT23CS050	UMME KAUNAIN HURERA	31	62	3
50	1WT23CS051	UMME KULSUM A	33	66	3
51	1WT23CS052	UMME KULSUM T	28	56	2
52	1WT23CS053	VARSHITA A S	28	56	2
53	1WT23CS054	VIJAYA LAKSHMI R	27	54	2
54	1WT23CS055	VYSHALINI	41	82	3
55	1WT23CS056	WAJEEHA KHAN	30	60	3
56	1WT23CS057	ZABRAIN TARANNUM	35	70	3
57	1WT23CS058	ZAINAB TAJ	41	82	3
58	1WT23CS059	ZUHA ZAMAN	37	74	3

59	1WT24CS400	AYESHA FIRDOSE	10	20	1
60	1WT24CS401	NAZIYA SIDDIQUA NIMRA	27	54	2
61	1WT24CS402	SANIYA	23	46	2
62	1WT23IS001	ANKITHA GURU G K	32	64	3
63	1WT23IS002	CHANDANA T	19	38	1
64	1WT23IS003	DIVYASHREE E	28	56	2
65	1WT23IS004	INDUMATHI R	31	62	3
66	1WT23IS005	JYOTHI MANJUNATH G	31	62	3
67	1WT23IS006	KEERTHANA R	30	60	3
68	1WT23IS007	MEHAK TAJ	37	74	3
69	1WT23IS008	MONIKA R	19	38	1
70	1WT23IS009	PRATHAVI S P	36	72	3
71	1WT23IS010	RITU V CHETTY	39	78	3
72	1WT23IS011	SARITHA A	38	76	3
73	1WT23IS012	SHAIK ATIKA KULSUM	28	56	2
74	1WT23IS013	SUSHMITHA R	41	82	3
75	1WT23IS014	VARSHINI V H	39	78	3
Average Value				**64%**	

Total No. of Students		75		
Course Outcomes by SEE Asessment	% Grading	% Distribution		
		3	2	1
CO1 to CO5	64%	47/75 = 62.66%	22/75 = 29.33%	6/75 = 8.1%

Total No. of Students		75		
Course Outcomes by CIE & SEE Asessment	% Grading	% Distribution		
		3	2	1
By CIE Assessment	96%	75/75 = 100%	0/75 = 0%	0/75 = 0%
By SEE Assessment	64%	47/75 = 62.66%	22/75 = 29.33%	6/75 = 8.1%
Average of CIE & SEE	80%	81.33%	14.69%	4.05%

Attainment of POs Level by CIE Assessment													
Course Name	COs	CO Attainment %	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
Research Methodology & IPR/BRMK557	CO1	97%		1				1	1				1
	CO2	98%		2							2		1
	CO3	95%		1				2					1
	CO4	94%						2	1				
	CO5	95%						1					
Average		96%											

Note: 1- Low, 2- Medium, 3- Higly supportive

Reference

https://www.nbaind.org/files/Some-more-examples-on-attainment-of-COs-and-PO-21-may-2016.pdf?shem=sswnst

V Semester

RESEARCH METHODOLOGY & IPR			
Course Code:	**BRMK557**	CIE Marks	50
Teaching Hours/Week (L:T:P: S)	3:0:0:0	SEE Marks	50
Total Hours of Pedagogy	40	Total Marks	100
Credits	03	Exam Hours	03

Course Objectives:

CO1. To Understand the knowledge on basics of research and its types.
CO2. To Learn the concept of Literature Review, Technical Reading, Attributions and Citations.
CO3. To learn Ethics in Engineering Research.
CO4. To Discuss the concepts of Intellectual Property Rights in engineering.

Teaching-Learning Process (General Instructions)

These are sample Strategies; that teachers can use to accelerate the attainment of the various course outcomes.

1. Lecturer methods (L) need not be only the traditional lecture methods, but alternative effective teaching methods could be adopted to attain the outcomes.
2. Use of Video to explain various concepts on IPR.
3. Encourage collaborative (Group Learning) Learning in the class.
4. Ask at least three HOT (Higher Order Thinking) questions in the class, which promotes critical thinking.
5. Introduce Topics in manifold representations.
6. Show the different ways to analyze the research problem and encourage the students to come up with their own creative ways to solve them.
7. Discuss how every concept can be applied to the real world - and when that's possible, it helps Improve the students' understanding.

Module-1 (8 Hours)

Introduction: Meaning of Research, Objectives of Engineering Research, and Motivation in Engineering Research, Types of Engineering Research, Finding and Solving a Worthwhile Problem.

Ethics in Engineering Research, Ethics in Engineering Research Practice, Types of Research Misconduct, Ethical Issues Related to Authorship.

Teaching- Learning Process	Chalk and talk method / PowerPoint Presentation.

Module-2 (8 Hours)

Literature Review and Technical Reading, New and Existing Knowledge, Analysis and Synthesis of Prior Art Bibliographic Databases, Web of Science, Google and Google Scholar, Effective Search: The Way Forward Introduction to Technical Reading Conceptualizing Research, Critical and Creative Reading, Taking Notes While Reading, Reading Mathematics and Algorithms, Reading a Datasheet.

Attributions and Citations: Giving Credit Wherever Due, Citations: Functions and Attributes, Impact of Title and Keywords on Citations, Knowledge Flow through Citation, Citing Datasets, Styles for Citations, Acknowledgments and Attributions, What Should Be Acknowledged, Acknowledgments in, Books Dissertations, Dedication or Acknowledgments.

Teaching-Learning Process	Chalk and talk method / PowerPoint Presentation

Module-3 (8 Hours)

Introduction To Intellectual Property: Role of IP in the Economic and Cultural Development of the Society, IP Governance, IP as a Global Indicator of Innovation, Origin of IP History of IP in India. Major Amendments in IP Laws and Acts in India.

Patents: Conditions for Obtaining a Patent Protection, To Patent or Not to Patent an Invention. Rights Associated with Patents. Enforcement of Patent Rights. Inventions Eligible for Patenting. Non-Patentable Matters. Patent Infringements. Avoid Public Disclosure of an Invention before Patenting. Process of Patenting.

Process of Patenting. Prior Art Search. Choice of Application to be Filed. Patent Application Forms. Jurisdiction of Filing Patent Application. Publication. Pre-grant Opposition. Examination. Grant of a Patent. Validity of Patent Protection. Post-grant Opposition. Commercialization of a Patent. Need for a Patent Attorney/Agent. Can a Worldwide Patent be Obtained? Do I Need First to File a Patent in India? Patent Related Forms. Fee Structure. Types of Patent Applications. Commonly Used Terms in Patenting. National Bodies Dealing with Patent Affairs. Utility Models.

Teaching- Learning Process	Chalk and talk method / PowerPoint Presentation.

Module-4 (8 Hours)

Copyrights and Related Rights: Classes of Copyrights. Criteria for Copyright. Ownership of Copyright. Copyrights of the Author. Copyright Infringements. Copyright Infringement is a Criminal Offence. Copyright Infringement is a Cognizable Offence. Fair Use Doctrine. Copyrights and Internet. Non-Copyright Work. Copyright Registration. Judicial Powers of the Registrar of Copyrights. Fee Structure. Copyright Symbol.

Validity of Copyright. Copyright Profile of India. Copyright and the word 'Publish'. Transfer of Copyrights to a Publisher. Copyrights and the Word 'Adaptation'. Copyrights and the Word 'Indian Work'. Joint Authorship. Copyright Society. Copyright Board. Copyright Enforcement Advisory Council (CEAC). International Copyright Agreements, Conventions and Treaties. Interesting Copyrights Cases.

Trademarks: Eligibility Criteria. Who Can Apply for a Trademark. Acts and Laws. Designation of Trademark Symbols. Classification of Trademarks. Registration of a Trademark is Not Compulsory. Validity of Trademark. Types of Trademark Registered in India. Trademark Registry. Process for Trademarks Registration. Prior Art Search. Famous Case Law: Coca-Cola Company vs. Bisleri International Pvt. Ltd.

Module-5(8 Hours)

Industrial Designs: Eligibility Criteria. Acts and Laws to Govern Industrial Designs. Design Rights. Enforcement of Design Rights. Non-Protectable Industrial Designs India. Protection Term. Procedure for Registration of Industrial Designs. Prior Art Search. Application for Registration. Duration of the Registration of a Design. Importance of Design Registration. Cancellation of the Registered Design. Application Forms. Classification of Industrial Designs. Designs Registration Trend in India. International Treaties. Famous Case Law: Apple Inc. vs. Samsung Electronics Co.

Geographical Indications: Acts, Laws and Rules Pertaining to GI. Ownership of GI. Rights Granted to the Holders. Registered GI in India. Identification of Registered GI. Classes of GI. Non-Registerable GI. Protection of GI. Collective or Certification Marks. Enforcement of GI Rights. Procedure for GI Registration Documents Required for GI Registration. GI Ecosystem in India.

Case Studies on Patents. Case study of Curcuma (Turmeric) Patent, Case study of Neem Patent, Case study of Basmati patent. **IP Organizations In India. Schemes and Programmes**

Teaching- Learning Process	Chalk and talk method / PowerPoint Presentation

Assessment Details (both CIE and SEE)

The weightage of Continuous Internal Evaluation (CIE) is 50% and for Semester End Exam (SEE) is 50%. The minimum passing mark for the CIE is 40% of the maximum marks (20 marks out of 50) and for the SEE minimum passing mark is 35% of the maximum marks (18 out of 50 marks). The student is declared as a pass in the course if he/she secures a minimum of 40% (40 marks out of 100) in the sum total of the CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together.

Continuous Internal Evaluation:

- There are 25 marks for the CIE's Assignment component and 25 for the Internal Assessment Test component.
- Each test shall be conducted for 25 marks. The first test will be administered after 40-50% of the coverage of the syllabus, and the second test will be administered after 85-90% of the coverage of the syllabus. The average of the two tests shall be scaled down to 25 marks
- Any two assignment methods mentioned in the 22OB2.4, if an assignment is project-based then only one assignment for the course shall be planned. The schedule for assignments shall be planned properly by the course teacher. The teacher should not conduct two assignments at the end of the semester if two assignments are planned. Each assignment shall be conducted for 25 marks. (If two assignments are conducted then the sum of the two assignments shall be scaled down to 25 marks)
- The final CIE marks of the course out of 50 will be the sum of the scale-down marks of tests and assignment/s marks.

Internal Assessment Test question paper is designed to attain the different levels of Bloom's taxonomy as per the outcome defined for the course.

Semester-End Examination:

Theory SEE will be conducted by University as per the scheduled timetable, with common question papers for the course (**duration 03 hours).**

1. The question paper will have ten questions. Each question is set for 20 marks.
2. There will be 2 questions from each module. Each of the two questions under a module (with a maximum of 3 sub-questions), **should have a mix of topics** under that module.
3. The students have to answer 5 full questions, selecting one full question from each module.

Marks scored shall be proportionally reduced to 50 marks.

Course Outcomes (Course Skill Set)

At the end of the course, the student will be able to:

CO1. To know the meaning of engineering research.

CO2. To know the procedure of the literature Review and Technical Reading

CO3. To understand the fundamentals of the patent laws and drafting procedure

CO4. Understanding the copyright laws and subject matters of copyrights and designs

CO5. Under standing the basic principles of design rights

Suggested Learning Resources:

Textbook

1. Dr. Santosh M Nejakar, Dr. Harish Bendigeri "Research Methodology and Intellectual Property Rights", ISBN 978-93-5987-928-4, Edition: 2023-24.

Reference Book:

1. David V. Thiel "Research Methods for Engineers" Cambridge University Press, 978-1-107-03488-4
2. Intellectual Property Rights by N.K.Acharya Asia Law House 6th Edition. ISBN: 978-93-81849-30-9

Activity Based Learning (Suggested Activities in Class)/ Practical Based learning

- Quizzes
- Assignments
- Seminars

USN | | | | | | | | | | |

GHOUSIA INSTITUTE OF TECHNOLOGY FOR WOMEN

Near Dairy Circle, Hosur Road, Bengaluru-560029, KARNATAKA

FIFTH SEMESTER

TEST – 1

*Subject :**Research Methodology & IPR*** *Date: 30 – 09 – 2025*

*Sub. Code: **BRMK557*** *Time: 10:00 am – 11:00 am*

Semester :5th *Max. Marks: 25*

*Note: Answer any **TWO** full questions choosing **ONE** from each Module.*

Que. No	Questions	Marks	COs	RBT
	MODULE–1			
1(a)	Explain intrinsic and extrinsic motivation in engineering research with suitable examples.	04	CO1	L5
1(b)	Explain the step-by-step process of identifying and solving a worthwhile research problem with a flow chart. Illustrate with a live example from online education platforms.	08	CO1	L2
	OR			
2 (a)	What are the main objectives of engineering research? Write any four.	04	CO1	L2
2 (b)	Discuss the various types of engineering research: descriptive vs analytical, applied vs fundamental, quantitative vs qualitative with examples.	08	CO1	L4
	MODULE–2			
3 (a)	What is meant by critical and creative reading? Give one example of each.	05	CO2	L4
3 (b)	Explain Conceptualizing Research with suitable example.	08	CO2	L2
	OR			
4 (a)	Why is it important to take notes while reading technical literature?	05	CO2	L2
4 (b)	Explain the step-by-step process of reading a technical research paper effectively.	08	CO2	L2

RBT-Revised Blooms Taxonomy; COs-Course Outcomes.

L_1– Remembering, L_2 – Understanding, L_3 – Applying,L_4 – Analysing, L_5 – Evaluating. RBT – Revised Blooms Taxonomy

Signature of Staff Incharge **Signature of Test Co-ordinator**

SCHEME OF EVALUATION

TEST –1

*Subject : **Research Methodology & IPR*** *Date: 30 – 09 – 2025*

*Sub. Code: **BRMK557*** *Time:10:00am – 11:00 am*

Semester :5th *Max. Marks: 25*

*Note: Answer any **TWO** full questions choosing **ONE** from each Module.*

MODULE – 1

Q.No.	Scheme	Breakup of Marks	Total Marks
1(a)	Intrinsic motivation-02 Extrinsic motivation-02	02 02	04
1(b)	Sketches: 03 Explanation: 03 Example: 02	03 03 02	08
2(a)	Any four objectives: 1x4 = 4	01 01 01 01	04
2(b)	Each type: 3x2 = 06 Examples: 02	06 02	08

MODULE –2

Q.No.	Scheme	Breakup of Marks	Total Marks
3(a)	Critical reading-02 Creative reading-02 Example: 01	02 02 01	05
3(b)	Explanation: 06 Example: 02	06 02	08
4(a)	Any five major reasons: 1x5 = 05	01 01 01 01 01	05
4(b)	Eight steps: 1x8 = 08 Brief explanation of each.	1x8	08

Name & Signature of Staff Incharge

USN | | | | | | | | | | |

GHOUSIA INSTITUTE OF TECHNOLOGY FOR WOMEN

Near Dairy Circle, Hosur Road, Bengaluru-560029, KARNATAKA

FIFTH SEMESTER

TEST – 2

*Subject :**Research Methodology & IPR*** *Date: 03 – 12 – 2025*

*Sub. Code: **BRMK557*** *Time: 10:00 am – 11:00 am*

Semester :5th *Max. Marks: 25*

*Note: Answer any **TWO** full questions choosing **ONE** from each Module.*

Que. No	Questions	Marks	COs	RBT
	MODULE–3			
1(a)	Define Intellectual Property Rights (IPR). Why are they important in engineering and technology?	04	CO3	L5
1(b)	Explain in detail the process of patenting in India with steps and flow chart.	08	CO3	L2
	OR			
2 (a)	Explain conditions for obtaining a patent protection.	04	CO3	L2
2 (b)	What is prior art search? Explain its importance and methods.	08	CO3	L4
	MODULE– 4 , 5			
3 (a)	Explain different classes of copy rights.	05	CO4	L4
3 (b)	Explain copy right registration process with a flow chart.	08	CO4	L2
	OR			
4 (a)	What is a Geographical Indication (GI) and what makes it different from a Trademark?	05	CO5	L4
4 (b)	Explain the procedure for industrial design registration with a flow chart.	08	CO5	L2

RBT-Revised Blooms Taxonomy; COs-Course Outcomes.

L_1– Remembering, L_2 – Understanding, L_3 – Applying,L_4 – Analysing, L_5 – Evaluating. RBT – Revised Blooms Taxonomy

Signature of Staff Incharge **Signature of Test Co-ordinator**

GHOUSIA INSTITUTE OF TECHNOLOGY FOR WOMEN

Near Dairy Circle, Hosur Road, Bengaluru-560029, KARNATAKA

SCHEME OF EVALUATION

TEST –2

*Subject : **Research Methodology & IPR*** *Date: 03 – 12 – 2025*

*Sub. Code: **BRMK557*** *Time:10:00am – 11:00 am*

Semester :5th *Max. Marks: 25*

*Note: Answer any **TWO** full questions choosing **ONE** from each Module.*

MODULE – 3

Q.No.	Scheme	Breakup of Marks	Total Marks
1(a)	Definition-02 Importance (any two)-02	02 02	04
1(b)	Flow chart: 03 Steps: 03 Explanation: 02	03 03 02	08
2(a)	Any four conditions: 1x4 = 4	01 01 01 01	04
2(b)	Definition: 02 Methods: 02 Explanation: 04	02 02 04	08

MODULE –4,5

Q.No.	Scheme	Breakup of Marks	Total Marks
3(a)	Classes Types: 03 Explanation: 02	03 02	05
3(b)	Flow chart: 03 Steps: 03 Explanation: 02	03 03 02	08
4(a)	Definition: 02 Any three differences: 03	02 03	05
4(b)	Flow chart: 03 Steps: 03 Explanation: 02	03 03 02	08

Name & Signature of Staff Incharge

GHOUSIA INSTITUTE OF TECHNOLOGY FOR WOMEN

Department of Computer Science & Engineering

Assignment No: I

Subject Code: BRMK557 ***Title: Research Methodology & IPR***
Semester: Fifth ***Branch: CS& IS***
Date of issue: 03/09/2025 ***Date of submission: 26/09/2025***

Instructions:*Answer all questions in assignment book only.*

Que. No	Questions	Marks	COs	RBT
	MODULE–01			
1	Explain the research cycle in engineering research with two live examples.	10	CO1	L2, L3
2	Discuss the various types of engineering research: descriptive vs analytical, applied vs fundamental, quantitative vs qualitative with examples.	10	CO1	L4
3	Describe the concept of motivation in engineering research. Compare intrinsic, extrinsic, and mixed motivations with examples.	10	CO1	L4, L5
4	Consider a scenario where engineers can patent not just inventions but also *research methodologies*. What would be the advantages and dangers for society? Explain for about 10 lines.	10	CO1	L5
5	How would engineering research motivations change if all researchers were paid equally regardless of output or recognition? Explain for about 10 lines.	10	CO1	L4
	MODULE–02			
6	Explain the step-by-step process of reading a technical research paper effectively.	10	CO2	L2
7	Discuss in detail the significance of proper acknowledgment and attribution in academic writing.	10	CO2	L3
8	Explain various citation styles (IEEE, ASCE) for books, journals, conferences, and websites in tabular form.	10	CO2	L4
9	If researchers were not allowed to publish papers, how would you measure their success? Explain for about 10 lines.	10	CO2	L5
10	Imagine you are asked to design a “failure-friendly” research system. How would it work? Explain for about 10 lines.	10	CO2	L5

L1 – Remembering, L2 – Understanding, L3 – Applying,L4 – Analysing, L5 – Evaluating. RBT – Revised Blooms Taxonomy

Signature of Staff Incharge

GHOUSIA INSTITUTE OF TECHNOLOGY FOR WOMEN

Department of Computer Science & Engineering

Assignment No:II

Subject Code: BRMK557 ***Title: Research Methodology & IPR***
Semester: Fifth ***Branch: CS& IS***
Date of issue: 03/10/2025 ***Date of submission: 25/12/2025***

Instructions:*Answer all questions in assignment book only.*

Que. No	Questions	Marks	COs	RBT
	MODULE–03			
1	What is Intellectual Property Right (IPR)? Explain different types of IPR with examples.	10	CO3	L2
2	Explain in detail the process of patenting in India with steps.	10	CO3	L3
3	What are the challenges and remedies for patent infringement? Explain with case examples.	10	CO3	L4
4	If ideas could be directly shared through brain-to-brain communication, how would IPR laws change? Explain for about 10 lines.	10	CO3	L5
5	Should life forms (like genetically modified plants or animals) be patented? Why or why not? Explain for about 10 lines.	10	CO3	L5
	MODULE–04			
6	Explain the rights given to authors under copyright law. Give suitable examples.	10	CO4	L2
7	Write detailed notes on: a) Copyright in the Internet Era b) Non-Copyrightable Works	10	CO4	L3
8	Describe the process of Trademark registration step by step with a neat diagram.	10	CO4	L4
9	If memes and viral videos are shared millions of times online, who really owns the copyright? Explain for about 10 lines.	10	CO4	L5
10	Imagine a future where personal names and emotions can be trademarked. What problems might arise? Explain for about 10 lines.	10	CO4	L5
	MODULE–05			
11	Explain the procedure for registration of Industrial Designs with the help of a flowchart.	10	CO5	L2
12	What is a geographical indication (GI)? Explain its features, registration process, and give at least 5 Indian examples.	10	CO5	L3
13	Write a detailed note on non-registerable GIs and explain why they are restricted.	10	CO5	L4
14	If fashion designs changed daily using AI, how could industrial design laws keep up with such fast innovation? Explain for about 10 lines.	10	CO5	L5
15	Should traditional foods (like Biryani, Dosa, or Pizza) get Geographical Indication (GI) protection worldwide? Why or why not? Explain for about 10 lines.	10	CO5	L5

L1 – Remembering, L2 – Understanding, L3 – Applying,L4 – Analysing, L5 – Evaluating. RBT – Revised Blooms Taxonomy

Signature of Staff Incharge

Student Seminar Presentation/BRMK557/Research Methodology & IPR/Fifth Semester/2025-26								
USN		Student Name	Topic of Presentation	Scheduled Date	M	L	COs	Student Signature
1	1WT23CS001	AFIYA ZUHA	Can AI (like ChatGPT) be called a researcher?	15-09-2025	25	L5	CO1	
2	1WT23CS002	AISHWARYA PATIL	How an idea becomes a real product in research	15-09-2025	25	L3	CO1	
3	1WT23CS003	AYMAN SIDDIQA	Are plagiarism checkers always correct?	15-09-2025	25	L4	CO1	
4	1WT23CS004	AKSHAYA J R	What drives researchers more – passion or money?	15-09-2025	25	L5	CO1	
5	1WT23CS005	ALMAS ANJUM	New ways of cheating in research using Big Data	15-09-2025	25	L4	CO1	
6	1WT23CS006	AMEENA A. SYED	Accidental discoveries – who should get the credit?	15-09-2025	25	L5	CO1	
7	1WT23CS007	AMEENA TAJ	Should research methods be allowed for patent?	15-09-2025	25	L5	CO1	
8	1WT23CS008	APOORVA H.M.	Hidden dangers of privacy in online research	15-09-2025	25	L4	CO1	
9	1WT23CS009	ASFIYA FATHIMA	Who really deserves their name on a research paper?	15-09-2025	25	L4	CO1	
10	1WT23CS010	ASHWINI	Can we stop the pressure of “publish or perish”?	15-09-2025	25	L5	CO1	
11	1WT23CS011	AYESHA QURATHUL	Is coding the new way to solve problems?	22-09-2025	25	L3	CO1	
12	1WT23CS012	BHOOMIKA M.	How research can solve world problems (climate, health)	22-09-2025	25	L4	CO1	

USN		Student Name	Topic of Presentation	Scheduled Date	M	L	COs	Student Signature
13	1WT23CS013	BINDU D. GUDLAR	What will research look like in the Metaverse?	22-09-2025	25	L3	CO1	
14	1WT23CS014	BUSHRA FATIMA	Can computers be taught to follow ethics?	22-09-2025	25	L5	CO1	
15	1WT23CS015	CHANDANA HEGDE P	How to Find and Define a Good Research Problem	22-09-2025	25	L4	CO2	
16	1WT23CS016	DEEKSHITHA P.	Importance of Literature Review in Research	22-09-2025	25	L2	CO2	
17	1WT23CS017	DEEPTHI SRINIVASA	Sources of Research Problems (Industry, Society, Technology)	22-09-2025	25	L3	CO2	
18	1WT23CS018	DHANUSHREE R.	Difference Between Qualitative and Quantitative Research	22-09-2025	25	L3	CO2	
19	1WT23CS019	DISHA B.G.	Exploratory, Descriptive, and Causal Research – What's the Difference?	22-09-2025	25	L4	CO2	
20	1WT23CS020	FARHEEN FIRDOUS	Choosing the Right Research Design for Your Project	22-09-2025	25	L4	CO2	
21	1WT23CS021	JYOTHI BASAVARAJ	Real-Life Examples of Problem Identification in Engineering	29-09-2025	25	L3	CO2	
22	1WT23C022	KAVITHA J.A.	Errors in Research – How to Avoid Them	29-09-2025	25	L4	CO2	
23	1WT23CS023	KAVYA N.	Role of Hypothesis in Research Studies	29-09-2025	25	L2	CO2	
24	1WT23C024	KEERTHANA T.R.	Characteristics of a Good Research Design	29-09-2025	25	L3	CO2	
25	1WT23CS025	KEERTHI P.	Case Studies vs Experiments – Which is Better?	29-09-2025	25	L4	CO2	

USN		Student Name	Topic of Presentation	Scheduled Date	M	L	COs	Student Signature
26	1WT23CS026	KULSUM F.	How Poor Research Design Leads to Wrong Results	29-09-2025	25	L5	CO2	
27	1WT23CS027	MALLIKA N.	Can Research Problems Be Predicted Using AI Tools?	29-09-2025	25	L5	CO2	
28	1WT23CS028	MANASA S.	What is Intellectual Property and Why Do We Need It?	29-09-2025	25	L2	CO3	
29	1WT23CS029	MEGHA G.	Different Types of Intellectual Property Rights (Patents, Copyrights, Trademarks, Designs)	29-09-2025	25	L2	CO3	
30	1WT23CS030	N. ZOYA	Role of IPR in Encouraging Innovation	29-09-2025	25	L3	CO3	
31	1WT23CS032	POOJA RAOSAHEB	Patents: Meaning, Process, and Real-Life Examples	06-10-2025	25	L3	CO3	
32	1WT23CS033	PRIYA	Copyrights in Journals, Conferences and Books.	06-10-2025	25	L2	CO3	
33	1WT23CS034	RABIYA UZMA S. A.	Trademarks and Their Role in Business	06-10-2025	25	L2	CO3	
34	1WT23CS035	RANJITHA N.S.	Industrial Designs and Geographical Indications Explained	06-10-2025	25	L3	CO3	
35	1WT23CS036	RUCHITHA P.	Trade Secrets and Their Importance in Companies	06-10-2025	25	L3	CO3	
36	1WT23CS037	SANA MUNIR	Case Studies of Famous Patent Disputes	06-10-2025	25	L4	CO3	
37	1WT23CS038	SANDIYADEVI V.	Copyright Infringement in the Digital Age	06-10-2025	25	L4	CO3	
38	1WT23CS039	SANIYA SUBHAN	Trademarks and Branding in Global Markets	06-10-2025	25	L4	CO3	

USN		Student Name	Topic of Presentation	Scheduled Date	M	L	COs	Student Signature
39	1WT23CS040	SARA SALITH	Ethical Issues in Patenting Life Forms and Medicines	06-10-2025	25	L5	CO3	
40	1WT23CS041	SHARADA KUMARI J.	Role of WIPO (World Intellectual Property Organization) in Global IP Protection	06-10-2025	25	L3	CO3	
41	1WT23CS042	SIDRA KALEEM	Challenges of Protecting IPR in the Internet Era	13-10-2025	25	L4	CO3	
42	1WT23CS043	SIMRAN	Can AI Systems Own Intellectual Property?	13-10-2025	25	L5	CO3	
43	1WT23CS044	SIRI A.C. NAIK	What is Copyright and Why is it Important?	13-10-2025	25	L2	CO4	
44	1WT23CS045	SOUBHAGYA	Rights of Authors and Inventors under Copyright Law	13-10-2025	25	L2	CO4	
45	1WT23CS046	SUPRITA GURU NAIK	Duration and Limitations of Copyright Protection	13-10-2025	25	L2	CO4	
46	1WT23CS047	TASMIYA FATHIMA KHANUM AZEEZ	Real-Life Examples of Copyright Infringement Cases	13-10-2025	25	L3	CO4	
47	1WT23CS048	TEJASHWINI	What is a Trademark and Why Do Businesses Need It?	13-10-2025	25	L2	CO4	
48	1WT23CS049	TEJASHWINI KALLAPP	Types of Trademarks (Word, Symbol, Shape, Sound, Color)	13-10-2025	25	L3	CO4	
49	1WT23CS050	UMME KAUNAIN	Difference Between Registered and Unregistered Trademarks	13-10-2025	25	L3	CO4	
50	1WT23CS051	UMME KULSUM A	Famous Trademark Disputes Around the World	13-10-2025	25	L4	CO4	
51	1WT23CS052	UMMI KULSUM T	Copyright vs Trademark: Key Differences	27-10-2025	25	L4	CO4	

USN		Student Name	Topic of Presentation	Scheduled Date	M	L	COs	Student Signature
52	1WT23CS053	VARSHITHA A.S.	Role of Copyright in Protecting Software and Digital Content	27-10-2025	25	L4	CO4	
53	1WT23CS054	VIJAYA LAKSHMI R.	Importance of Trademarks in Building a Brand Identity	27-10-2025	25	L3	CO4	
54	1WT23CS055	VYSHALINI	Challenges of Copyright Protection in the Internet Age	27-10-2025	25	L4	CO4	
55	1WT23CS056	WAJEEHA KHAN	Impact of Globalization on Copyright and Trademark Protection	27-10-2025	25	L4	CO4	
56	1WT23CS057	ZABRAIN TARANNUM	Can AI-Created Works Have Copyright Protection?	27-10-2025	25	L5	CO4	
57	1WT23CS058	ZAINAB TAJ	Should Common Words or Colors Be Allowed for Trademarks?	27-10-2025	25	L5	CO4	
58	1WT23C059	ZUHA ZAMAN	What is an Industrial Design and Why Does it Matter?	27-10-2025	25	L2	CO5	
59	1WT24CS400	AYESHA FIRDOSE	Global Examples of Geographical Indications	27-10-2025	25	L2	CO5	
60	1WT24CS401	NAZIYA SIDDIQA NIMRA	Difference Between Trademarks and Geographical Indications	27-10-2025	25	L1	CO5	
61	1WT24CS402	SANIYA	Industrial Design vs Geographical Indication – A Comparison	03-11-2025	25	L1	CO5	
62	1WT23IS001	ANKITHA GURU G.K.	Features of a Good Industrial Design	03-11-2025	25	L2	CO5	
63	1WT23IS002	CHANDANA T.	Process of Registering an Industrial Design	03-11-2025	25	L3	CO5	
64	1WT2315003	DIVYASHREE C.	Benefits of Industrial Design Protection for Businesses	03-11-2025	25	L3	CO5	

USN		Student Name	Topic of Presentation	Scheduled Date	M	L	COs	Student Signature
65	1WT23IS004	INDUMATHI R.	Famous Examples of Industrial Designs in Daily Life	03-11-2025	25	L3	CO5	
66	1WT23IS005	JYOTHI MANJUNATH GULYANAVAR	What is a Geographical Indication (GI)?	03-11-2025	25	L2	CO5	
67	1WT23IS006	KEERTHANA R.	Features of Geographical Indications Explained Simply	03-11-2025	25	L2	CO5	
68	1WT23IS007	MEHAK TAJ	Process of Registering a Geographical Indication in India	03-11-2025	25	L3	CO5	
69	1WT23IS008	MONIKA R.	Famous Indian GI Products (Darjeeling Tea, Mysore Silk, etc.)	03-11-2025	25	L3	CO5	
70	1WT23IS009	PRARTHAVI S.P.	Global Examples of Geographical Indications	03-11-2025	25	L3	CO5	
71	1WT23IS010	RITU V. CHETTY	Difference Between Trademarks and Geographical Indications	10-11-2025	25	L4	CO5	
72	1WT23IS011	SARITHA A.	Industrial Design vs Geographical Indication – A Comparison	10-11-2025	25	L4	CO5	
73	1WT23IS012	SHAIK AATIKA KULSUM	Role of GIs in Protecting Traditional Knowledge and Culture	10-11-2025	25	L4	CO5	
74	1WT23IS013	SUSHMITHA R.	Challenges in Protecting Industrial Designs and GIs in the Digital Age	10-11-2025	25	L5	CO5	
75	1WT23IS014	VARSHINI V.H.	Can AI-Generated Designs or Virtual Goods Be Protected Under Design or GI	10-11-2025	25	L5	CO5	

M- Marks; L- Bloom's Taxonomy Level; COs- Course Outcomes.

L1-Remembering, L2-Understanding, L3-Applying, L4-Analysing, L5-Evaluating, L6-Creating.

Staff Incharge/Dr.NAVEED