



Dr.T.Thimmaiah Institute of Technology

Oorgaam, K.G.F-563120

SEM	4
Department	Mining
Course	Mine Surveying -II
Academic Year	2020-21

Course Instructor	RAJA S
Designation	Associate Professor
Course code	18MN43
Total Students	76

CO'S	Description
CO1	Outline the duties and responsibility of a surveyor in a mine (Understand)
CO2	Design simple curve in haul roads (Application)
CO3	Apply conventional, optical and digital means of measurements to obtain angle, bearing, distance, elevation, area, volume and co-ordinates (Application)
CO4	Connect baseline from surface to underground and control the direction of drives in underground (Application)
CO5	Outline the developments and application of digital instruments in surface and underground surveying (Understand)
CO6	

Grading Scale	Level
Score < 40	0
Score 40 to < 45	1
Score 45 to < 50	2
Score > 50	3

Target Percentage	50
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CO's	T1	T2	T3	A	T	Q	Total Marks	External Marks
CO1	10		10				16	50
CO2	20		20	30			42	
CO3	20	20				30	42	
CO4		20	20				32	
CO5		10			30		18	
CO6							0	

Sl No	USN	Students Name	CO Marks in Tests												Attainment of CO's												VTU	
			Test 1			A	Test 2			Q	Test 3			T	CO1		CO2		CO3		CO4		CO5		CO6		All CO	
			CO1	CO2	CO3	CO2	CO3	CO4	CO5	CO3	CO1	CO2	CO4	CO5	M	%	M	%	M	%	M	%	M	%	M	%	M	%
1	1GV18MI004	ASHIK G	10	10	10	30	20	15	10	24	0	2	0	30	8	50	20	47	32	76	12	38	18	100	0	###	31	63
2	1GV18MI015	LIKIT NAIK H	10	10	10	30	20	20	10	24	7	0	8	30	14	85	18	43	32	76	22	70	18	100	0	###	33	65
3	1GV18MI020	NITHESH K	10	10	10	30	20	10	10	24	2	2	7	30	10	60	20	47	32	76	14	43	18	100	0	###	31	63
4	1GV18MI022	NITHISH A	10	10	15	30	20	10	10	24	6	10	15	30	13	80	26	62	36	86	20	63	18	100	0	###	36	73
5	1GV18MI025	PRAVEEN KUMAR K	10	10	5	30	20	10	0	24	0	0	0	30	8	50	18	43	28	67	8	25	10	56	0	###	27	53
6	1GV18MI032	SHAMIMUL IMRAN A	10	10	10	30	20	15	10	24	5	8	3	30	12	75	24	58	32	76	14	45	18	100	0	###	26	53
7	1GV18MI036	UDAYA RAJU P S	10	10	5	30	20	20	10	24	5	0	5	30	12	75	18	43	28	67	20	63	18	100	0	###	34	67
8	1GV19MI001	ABDUL FIRSHAN E K	10	10	10	30	20	10	10	27	0	0	8	30	8	50	18	43	33	79	14	45	18	100	0	###	31	61
9	1GV19MI002	ABHISHEK M	10	10	10	30	20	20	10	24	5	4	7	30	12	75	21	50	32	76	22	68	18	100	0	###	43	87
10	1GV19MI003	AJITH A	10	10	10	30	20	20	10	24	6	2	20	30	13	80	20	47	32	76	32	100	18	100	0	###	44	88
11	1GV19MI004	AJITH KUMAR K	10	5	10	30	10	10	10	24	0	0	20	30	8	50	14	33	24	57	24	75	18	100	0	###	29	57
12	1GV19MI005	AMARNATH N	10	10	10	30	20	10	0	27	10	10	16	30	16	100	26	62	33	79	21	65	10	56	0	###	36	72
13	1GV19MI006	ASHWIN M	10	10	5	30	20	20	10	27	5	10	17	30	12	75	26	62	29	69	30	93	18	100	0	###	41	82
14	1GV19MI007	B NAVEEN BALEGAR	10	10	10	30	20	20	10	27	2	0	5	30	10	60	18	43	33	79	20	63	18	100	0	###	32	64
15	1GV19MI008	DEEPAK RAJ C	10	10	10	30	20	20	0	15	6	18	10	30	13	80	32	77	29	69	24	75	10	56	0	###	35	70
16	1GV19MI009	CHANBORMITRE SALAHE	10	10	5	30	20	20	10	21	6	10	15	30	13	80	26	62	27	64	28	88	18	100	0	###	43	86
17	1GV19MI010	DEEPAK RAGHAVENDRA G	10	10	10	30	20	10	0	21	10	0	10	30	16	100	18	43	31	74	16	50	10	56	0	###	34	69
18	1GV19MI011	DINESH BABU R	10	20	20	30	20	20	10	27	10	20	20	30	16	100	42	100	41	98	32	100	18	100	0	###	48	97
19	1GV19MI012	G SUDARSHAN YELIGAR	10	10	10	30	20	20	0	30	8	0	0	30	14	90	18	43	34	81	16	50	10	56	0	###	24	48
20	1GV19MI013	GAJULA SREEKANTH	10	10	10	30	20	10	10	30	0	7	0	30	8	50	24	56	34	81	8	25	18	100	0	###	17	34
21	1GV19MI014	GIRISH B	10	10	5	30	20	20	10	24	10	0	20	30	16	100	18	43	28	67	32	100	18	100	0	###	36	71
22	1GV19MI015	GOUTHAM V S	10	10	10	30	20	10	10	30	0	0	7	30	8	50	18	43	34	81	14	43	18	100	0	###	29	57
23	1GV19MI016	HAMRIN RAKESH RAYAN M	10	10	10	30	20	20	10	24	5	0	16	30	12	75	18	43	32	76	29	90	18	100	0	###	35	71
24	1GV19MI017	HASHIM N	10	10	10	30	20	10	5	27	0	0	5	30	8	50	18	43	33	79	12	38	14	78	0	###	33	67
25	1GV19MI018	HEM PRAHADEESHWAR R	10	10	5	30	20	20	10	24	0	0	0	30	8	50	18	43	28	67	16	50	18	100	0	###	35	69
26	1GV19MI019	JAYA SURIYA K	10	10	10	30	20	10	0	18	10	48	20	30	16	100	56	134	30	71	24	75	10	56	0	###	36	71
27	1GV19MI020	JEEN VARGHESE	10	10	8	30	20	10	10	6	5	0	12	30	12	75	18	43	24	57	18	55	18	100	0	###	31	63
28	1GV19MI021	KARTHIK K B	10	10	8	30	20	20	10	9	10	0	16	30	16	100	18	43	25	60	29	90	18	100	0	###	28	55
29	1GV19MI023	LOKESH P	10	10	10	30	20	20	10	24	10	18	20	30	16	100	32	77	32	76	32	100	18	100	0	###	41	82
30	1GV19MI024	GOGULRAJA M	10	10	10	30	20	10	0	21	10	14	20	30	16	100	29	70	31	74	24	75	10	56	0	###	38	76
31	1GV19MI025	MANJUNATH S BHAJANTR	10	10	10	30	20	20	10	12	10	18	16	30	16	100	32	77	28	67	29	90	18	100	0	###	40	80
32	1GV19MI026	MANOHARAN	10	10	10	30	20	20	10	27	10	10	14	30	16	100	26	62	33	79	27	85	18	100	0	###	34	67
33	1GV19MI027	METHUN RAJ S	10	10	10	30	20	10	0	21	6	5	16	30	13	80	22	52	31	74	21	65	10	56	0	###	35	69
34	1GV19MI028	MUHAMMED NABEEL MA	10	10	10	30	20	10	5	27	5	0	5	30	12	75	18	43	33	79	12	38	14	78	0	###	39	79
35	1GV19MI029	NAVEEN M	10	20	20	30	20	20	10	24	10	20	20	30	16	100	42	100	40	95	32	100	18	100	0	###	43	85

36	1GV19MI030	PUGAZHENTHI RAO R	10	10	10	30	20	15	10	21	5	10	15	30	12	75	26	62	31	74	24	75	18	100	0	###	33	66
37	1GV19MI031	ROHAN RAJ	10	10	5	30	20	20	10	24	10	2	10	30	16	100	20	47	28	67	24	75	18	100	0	###	41	83
38	1GV19MI032	SAILOKESH V	10	10	5	30	20	10	10	27	8	0	10	30	14	90	18	43	29	69	16	50	18	100	0	###	34	67
39	1GV19MI033	SANJAY AKASH A	10	10	8	30	20	20	10	24	10	2	10	30	16	100	20	47	30	71	24	75	18	100	0	###	31	62
40	1GV19MI034	SANTHOSH M S	10	10	10	30	20	20	10	21	10	10	20	30	16	100	26	62	31	74	32	100	18	100	0	###	41	82
41	1GV19MI036	SHANJAY SHARMAA K J	10	10	5	30	20	20	10	18	4	20	20	30	11	70	34	81	26	62	32	100	18	100	0	###	36	71
42	1GV19MI037	SHIVA SHANKAR P D	10	10	10	30	20	10	10	18	5	10	0	30	12	75	26	62	30	71	8	25	18	100	0	###	30	61
43	1GV19MI038	SRI JAYA SURYA V	10	10	5	30	20	10	10	21	10	10	20	30	16	100	26	62	27	64	24	75	18	100	0	###	41	82
44	1GV19MI039	SUBASH P	10	10	10	30	20	10	0	18	4	18	20	30	11	70	32	77	30	71	24	75	10	56	0	###	39	78
45	1GV19MI040	SULEMAN B	10	10	10	30	20	20	10	24	0	10	7	30	8	50	26	62	32	76	22	68	18	100	0	###	39	79
46	1GV19MI041	SUNIL RICHARDSON J	10	10	10	30	20	10	0	24	10	0	10	30	16	100	18	43	32	76	16	50	10	56	0	###	30	59
47	1GV19MI042	SUNIL US	10	10	5	30	20	10	10	24	10	12	20	30	16	100	28	66	28	67	24	75	18	100	0	###	32	63
48	1GV19MI043	T PRABAKARAN	10	10	10	30	20	10	10	24	0	0	14	30	8	50	18	43	32	76	19	60	18	100	0	###	29	59
49	1GV19MI044	P THEIVARAJA	10	10	10	30	20	20	0	24	10	18	20	30	16	100	32	77	32	76	32	100	10	56	0	###	38	76
50	1GV19MI045	VENKATESH E	10	10	10	30	20	20	0	21	5	10	8	30	12	75	26	62	31	74	22	70	10	56	0	###	33	65
51	1GV19MI046	YUVARAJ S P	10	10	10	30	20	20	5	24	8	0	6	30	14	90	18	43	32	76	21	65	14	78	0	###	36	72
52	1GV19MI047	YUVARAJA KUMARAN C	10	10	10	30	20	20	5	18	10	18	20	30	16	100	32	77	30	71	32	100	14	78	0	###	34	67
53	1GV19MI048	SRIRAM M	10	10	10	30	20	10	0	24	10	0	10	30	16	100	18	43	32	76	16	50	10	56	0	###	36	71
54	1GV19MI049	SANJAY KUMAR S	10	10	20	30	20	20	10	27	10	12	18	30	16	100	28	66	41	98	30	95	18	100	0	###	42	85
55	1GV19MI050	RAKESH K	10	10	10	30	20	10	0	18	2	0	3	30	10	60	18	43	30	71	10	33	10	56	0	###	28	57
56	1GV20MI400	ABISHEK S	10	10	10	30	20	20	10	24	8	8	0	30	14	90	24	58	32	76	16	50	18	100	0	###	39	79
57	1GV20MI401	AFZAL L	10	10	8	30	20	20	10	21	8	12	20	30	14	90	28	66	29	69	32	100	18	100	0	###	39	79
58	1GV20MI402	ANSHADH	10	10	5	30	20	20	10	24	6	10	5	30	13	80	26	62	28	67	20	63	18	100	0	###	47	95
59	1GV20MI403	JOTHAM SIGA JUDSON	10	10	10	30	20	20	10	24	6	8	5	30	13	80	24	58	32	76	20	63	18	100	0	###	36	72
60	1GV20MI404	KANIVIHALLISATHISA	10	10	10	30	20	20	5	21	10	10	7	30	16	100	26	62	31	74	22	68	14	78	0	###	34	67
61	1GV20MI405	K SHIVA SHANKARA CHAR	10	10	10	30	20	20	10	24	10	18	7	30	16	100	32	77	32	76	22	68	18	100	0	###	44	87
62	1GV20MI406	KRISTHARAJ	10	10	10	30	20	20	10	30	7	8	2	30	14	85	24	58	34	81	18	55	18	100	0	###	39	77
63	1GV20MI407	LENUS LEANDER V	10	10	5	30	20	10	10	24	9	18	10	30	15	95	32	77	28	67	16	50	18	100	0	###	42	85
64	1GV20MI408	MANOJ KUMAR S	10	10	10	30	20	10	10	24	8	48	10	30	14	90	56	134	32	76	16	50	18	100	0	###	35	71
65	1GV20MI409	NITHISH M	10	10	5	30	20	20	10	24	10	48	10	30	16	100	56	134	28	67	24	75	18	100	0	###	42	84
66	1GV20MI410	PRASHANTH T	10	10	10	30	20	20	10	24	0	16	0	30	8	50	31	73	32	76	16	50	18	100	0	###	36	73
67	1GV20MI411	PRAVEEN B	10	10	10	30	20	10	10	24	0	12	4	30	8	50	28	66	32	76	11	35	18	100	0	###	37	75
68	1GV20MI412	PRAVEEN THINAGAR R	10	10	10	30	20	20	10	21	0	0	20	30	8	50	18	43	31	74	32	100	18	100	0	###	27	54
69	1GV20MI413	RAHUL A	10	10	15	30	20	20	10	24	8	18	10	30	14	90	32	77	36	86	24	75	18	100	0	###	42	85
70	1GV20MI414	RAMKUMAR R	10	10	20	30	20	20	10	24	0	18	10	30	8	50	32	77	40	95	24	75	18	100	0	###	45	90
71	1GV20MI415	RAVISHANKAR R	10	10	15	30	20	10	10	24	4	10	10	30	11	70	26	62	36	86	16	50	18	100	0	###	47	95
72	1GV20MI416	RUFUS N R	10	10	10	30	20	20	5	24	8	10	10	30	14	90	26	62	32	76	24	75	14	78	0	###	40	80
73	1GV20MI417	VEERESH	10	10	10	30	17	20	10	3	10	10	15	30	16	100	26	62	23	54	28	88	18	100	0	###	31	61
74	1GV20MI418	EARNEST KIRUBAGARAN F	10	10	10	30	20	10	0	15	0	10	6	30	8	50	26	62	29	69	13	40	10	56	0	###	33	67

75	1GV20MI419	SHAIK KAREMULLA		10	10	5	30	20	20	10	24	0	18	10	30
76	1GV20MI420	YALAMAKURI THARUN KU		10	10	10	30	20	20	10	24	0	18	10	30

8	50	32	77	28	67	24	75	18	100	0	###	49	98
8	50	32	77	32	76	24	75	18	100	0	###	46	92
CO1	76	CO2	48	CO3	76	CO4	63	CO5	76	CO6	0	VTU	74

Target is 50% marks
Attainment level 1: 40% students scoring more than 50% marks
Attainment level 2: 45% students scoring more than 50% marks
Attainment level 3: 50% students scoring more than 50% marks

PERCENTAGE OF STUDENTS SCORING > 50% of Marks (For Internal Assessment)						
CO'S	CO1	CO2	CO3	CO4	CO5	CO6
Number of Students Scored above 50% marks	76	48	76	63	76	0
Number of Students attempted the test	76	76	76	76	76	76
% OF STUDENTS	100.00	63.16	100.00	82.89	100.00	
Attainment Level	3	3	3	3	3	

PERCENTAGE OF STUDENTS SCORING > 50% of marks (For University Examination)	
Number of Students Scored above 50 % of Marks	74
Number of Students attempted the Examination	76
% OF STUDENTS	97.37
Attainment Level	3

Calculation for CO attainment by direct assessment (40% weightage for IA & 60% SEE marks)	Attainment
CO1	0.98
CO2	0.84
CO3	0.98
CO4	0.92
CO5	0.98
CO6	

CO attainment using Course survey	
CO1	0.8508
CO2	0.8157
CO3	0.7982
CO4	0.76315
CO5	0.80705
CO6	

Overall CO attainment	
CO1	0.958
CO2	0.833
CO3	0.947
CO4	0.885
CO5	0.949
CO6	

PO MAPPING

CO'S	1	2	3	4	5	6	7	8	9	10	11	12
CO1	1											
CO2	2	1										
CO3	2	1										
CO4	2	1										
CO5	2	1										
CO6												
Total	9	4	0	0	0	0	0	0	0	0	0	0
PO AVERAGE	1.80	1.00										

PSO MAPPING

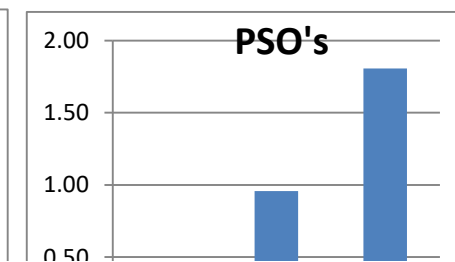
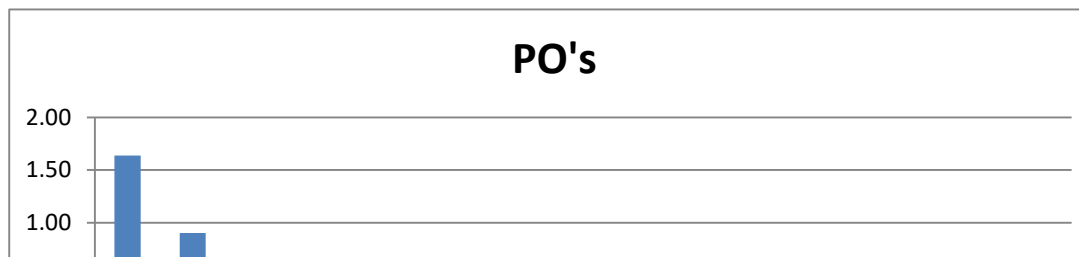
CO'S	1	2	3
CO1		1	
CO2			2
CO3			2
CO4			2
CO5			2
CO6			
Total	0	1	8
PSO AVERAGE		1.00	2.00

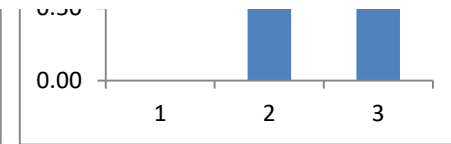
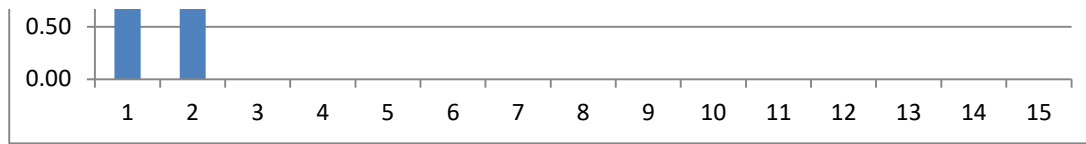
ATTAINMENT

CO'S	1	2	3	4	5	6	7	8	9	10	11	12
CO1	0.96											
CO2	1.67	0.83										
CO3	1.89	0.95										
CO4	1.77	0.89										
CO5	1.90	0.95										
CO6												
PO AVERAGE	1.64	0.90										

ATTAINMENT

CO'S	1	2	3
CO1		0.96	
CO2			1.67
CO3			1.89
CO4			1.77
CO5			1.90
CO6			
PSO AVERAGE		0.96	1.81





Prepared by
Dr. P D Sudersanan, Dr.TTIT, K.G.F.



Dr.T.Thimmaiah Institute of Technology

Oorgaam, K.G.F-563120

SEM	4
Department	Mining
Course	Mining Machinery
Academic Year	2020-21

Course Instructor	Dr. Manjunath A
Designation	Associate Professor
Course code	18MN44
Total Students	76

CO'S	Description
CO1	To demonstrate types, construction, size, capping and splicing of wire ropes used in mines.
CO2	To describe various transportation equipments used to transport minerals, men and materials in mines.
CO3	To describe winding systems, their suspension gear and braking arrangements, used in underground mines
CO4	To describe various winning machines used in mines for extraction of minerals.
CO5	To summarize types, applications of pumps used in mines.

Grading Scale	Level
Score < 40	0
Score 40 to < 45	1
Score 45 to < 50	2
Score > 50	3

Target Percentage	50
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CO's	T1	T2	T3	A	T	Q	Total Marks	External Marks
CO1	18			10			24	50
CO2	32	20	20				58	
CO3		20		10			26	
CO4			30	10			34	
CO5		10					8	
CO6							0	

Sl No	USN	Students Name	CO Marks in Tests												Attainment of CO's												VTU				
			Test 1			A	Test 2			A	Test 3			A	CO1		CO2		CO3		CO4		CO5		CO6		All CO				
			CO1	CO2		CO1	CO2	CO3	CO5	CO3	CO2	CO4		CO4	M	%	M	%	M	%	M	%	M	%	M	%	M	%	M	%	
1	IGV18MI004	ASHIK G	9	20		10	4	16	7	9	0	9		9				17	69	19	33	22	84	16	48	6	70	0	###	25	49
2	IGV18MI015	LIKIT NAIK H	12	14		10	14	7	7	9	0	8		9				19	79	22	39	15	56	15	45	6	70	0	###	27	53
3	IGV18MI020	NITHESH K	11	20		10	14	12	6	9	0	6		9				19	77	27	47	19	72	14	41	5	60	0	###	24	48
4	IGV18MI022	NITHISH A	9	18		10	14	13	7	9	5	13		9				17	70	30	51	19	75	19	57	6	70	0	###	28	57
5	IGV18MI025	K PRAVEEN KUMAR	15	27		10	4	17	9	9	0	7						22	89	25	43	23	87	6	16	7	90	0	###	23	45
6	IGV18MI032	SHAMIMUL-IMRAN A	11	24		10	14	16	8	9	2	6		9				19	77	32	56	22	84	14	41	6	80	0	###	20	40
7	IGV18MI036	UDAYA RAJU P S	13	25		9	16	17	9	9	0	8		9				20	81	33	57	23	87	15	45	7	90	0	###	28	56
8	IGV19MI001	ABDUL FIRSHAN E K	8	23		7	10	5	5	4	0	7		9				13	55	26	46	8	31	15	43	4	50	0	###	25	49
9	IGV19MI002	ABHISHEK M	11	17		0	10	17	9	2	3	8		9				9	36	24	42	16	60	15	45	7	90	0	###	35	71
10	IGV19MI003	AJITH A	12	26		10	12	12	8	9	1	17		9				19	79	31	54	19	72	23	66	6	80	0	###	36	73
11	IGV19MI004	AJITH KUMAR K	7	28		8	13	0	8		0	8		9				14	57	33	57	0	0	15	45	6	80	0	###	24	48
12	IGV19MI005	AMARNATH N	12	17		8	14	14	8	9	0	9		9				18	73	25	43	20	78	16	48	6	80	0	###	28	56
13	IGV19MI006	ASHWIN M	10	19		10	12	11	7	9	10	23		9				18	74	33	57	18	68	27	81	6	70	0	###	33	66
14	IGV19MI007	B NAVEEN BALEGAR	14	19		3	7	17	9	3	8	8		9				14	58	27	47	17	64	15	45	7	90	0	###	26	53
15	IGV19MI008	C DEEPAK RAJ	10	17		9	10	11	8	7	8	18		9				17	68	28	49	16	61	23	69	6	80	0	###	28	56
16	IGV19MI009	CHANBORMITRE	5	26		3	17	15	5	5	0	0		9				7	29	34	60	17	65	9	26	4	50	0	###	35	70
17	IGV19MI010	DEEPAK	8	28		8	13	7	7		2	9		9				14	59	34	60	6	22	16	48	6	70	0	###	28	57
18	IGV19MI011	DINESH BABU R	5	7		9	9	11	5	9	14	26		9				13	53	24	42	18	68	30	88	4	50	0	###	39	78
19	IGV19MI012	G SUDARSHAN	12	25		4	13	11	0	2	5	2		9				13	54	34	60	11	42	11	31	0	0	0	###	17	35
20	IGV19MI013	GAJULA SREEKANTH	9	27		3	12	5	9	7	0	0		8				11	43	31	54	11	42	8	24	7	90	0	###	12	23
21	IGV19MI014	GIRISH B	9	27		10	16	16	9	9	0	19		9				17	69	34	60	22	84	24	71	7	90	0	###	29	58
22	IGV19MI015	GOUTHAM V S	9	14		0	8	2	9	9	9	15		9				7	30	25	43	11	41	21	62	7	90	0	###	22	44
23	IGV19MI016	HAMRIN RAKESH	14	22		7	14	6	9		3	4		9				19	76	31	54	5	18	12	36	7	90	0	###	27	55
24	IGV19MI017	HASHIM N	9	16		0	8	8	5	9	0	7		9				7	30	19	33	15	59	15	43	4	50	0	###	28	55
25	IGV19MI018	HEM	14	28		4	12	17	8	8	0	0		9				16	64	32	56	22	83	9	26	6	80	0	###	29	59
26	IGV19MI019	JAYASURIYA K	7	16		2	12	14	8	9	0	10		10				8	33	22	39	20	78	18	53	6	80	0	###	28	55
27	IGV19MI020	JEEN VARGHESE	11	19		1	15	2	9	4	0	12		10				10	42	27	47	6	22	20	58	7	90	0	###	24	49
28	IGV19MI021	KARTHIK K B	9	28		4	12	15	9	4	5	0						11	45	36	63	16	62	0	0	7	90	0	###	22	43
29	IGV19MI023	LOKESH P	12	26		10	13	17	9	9	0	8		9				19	79	31	54	23	87	15	45	7	90	0	###	32	64
30	IGV19MI024	M GOGULRAJA	8	22		4	12	12	9	8	9	0		9				10	43	34	60	18	68	9	26	7	90	0	###	31	62
31	IGV19MI025	MANJUNATH S	13	28		3	14	11	0	6	14	12		9				14	56	45	78	15	57	19	55	0	0	0	###	32	65
32	IGV19MI026	MANOHARAN S	8	23		10	12	15	1	9	0	8		9				16	66	28	49	21	81	15	45	1	10	0	###	26	53
33	IGV19MI027	METHUNRAJ S	7	20		0	11	10	8	9	0	5		10				6	23	25	43	17	65	14	41	6	80	0	###	29	57
34	IGV19MI028	MUHAMMED	9	19		9	13	4	4	9	9	5		8				16	66	33	57	12	47	12	35	3	40	0	###	33	66
35	IGV19MI029	NAVEEN M	14	25		3	18	18	9	6	8	10		9				14	58	41	71	20	78	17	50	7	90	0	###	34	68

36	1GV19MI030	PUGAZHENTHI RAO	4	16		0	11	12	6	8	0	26		9
37	1GV19MI031	ROHAN RAJ	11	23		10	15	17	8	8	5	9		9
38	1GV19MI032	SAI LOKESH V	14	26		7	17	15	0	8	0	9		9
39	1GV19MI033	SANJAY AKASH A	13	22		10	12	17	9	9	3	7		9
40	1GV19MI034	SANTHOSH M S	12	27		9	13	15	8	9	0	9		9
41	1GV19MI036	SHANJAY	6	15		10	13	19	8	9	3	21		10
42	1GV19MI037	SHIVA SHANKAR P D	4	18		2	11	14	6	9	0	17		9
43	1GV19MI038	SRI JAYA SURYA V	7	20		10	11	12	7	9	0	25		9
44	1GV19MI039	SUBASH P	7	16		9	13	4	5	9	9	13		9
45	1GV19MI040	SULEMAN B	13	27		0	17	17	9	8	5	3		9
46	1GV19MI041	SUNIL	2	26		8	11	5	7	8	0	0		8
47	1GV19MI042	SUNIL US	12	25		10	12	16	9	9	0	22		9
48	1GV19MI043	T PRABAKARAN	15	24		10	11	2	9	9	0	14		9
49	1GV19MI044	THEIVARAJA P	13	25		10	14	11	9	9	7	24		9
50	1GV19MI045	VENKATESH E	11	28		9	5	11	9	9	13	23		9
51	1GV19MI046	YUVARAJ S P	11	17		3	10	19	9	8	6	0		9
52	1GV19MI047	YUVARAJAKUMARA	5	25		10	13	16	8	9	0	19		9
53	1GV19MI048	SRIRAM M	10	17		8	11	8	0	9	0	5		9
54	1GV19MI049	SANJAY KUMAR S	10	26		7	16	9	9		12	8		9
55	1GV19MI050	RAKESH K	13	23		3	13	0	7	3	8	15		9
56	1GV20MI400	ABISHEK S	13	31		4	17	18	4	9	10	18		10
57	1GV20MI401	AFZAL L	15	27		9	14	14	6	9	6	17		10
58	1GV20MI402	ANSHADH	7	27		4	0	13	9	9	18	24		10
59	1GV20MI403	JOTHAM SIGA JUDSC	11	28		9	19	18	0	9	12	25		
60	1GV20MI404	KANIVIHALLISATHI	12	24		10	13	4	8		18	17		10
61	1GV20MI405	K SHIVA SHANKARA	7	24		10	8	11	9	9	8	16		8
62	1GV20MI406	KRISTHARAJ	6	16		10	13	19	0	9	13	10		
63	1GV20MI407	LENUS LEANDER V	13	21		5	13	16	1	9	4	10		9
64	1GV20MI408	MANOJ KUMAR S	7	21		4	14	18	8	9	12	8		8
65	1GV20MI409	NITHISH M	15	28		5	16	18	9	9	13	8		10
66	1GV20MI410	PRASHANTH T	12	28		4	16	18	5	9	7	18		10
67	1GV20MI411	PRAVEEN B	8	19		4	11	12	6	6	11	15		10
68	1GV20MI412	PRAVEEN THINAGA	11	16		9	14	8	8	9	4	0		9
69	1GV20MI413	RAHUL A	16	31		4	8	18	9	9	8	5		9
70	1GV20MI414	RAMKUMAR R	14	26		10	17	17	8	9	16	26		9
71	1GV20MI415	RAVISHANKAR R	13	19		4	16	17	0	5	16	25		10
72	1GV20MI416	RUFUS N R	12	28		9	15	19	9	9	14	21		10
73	1GV20MI417	VEERESH	10	20		3	15	18	8	4	13	9		
74	1GV20MI418	EARNEST KIRUBAGA	14	22		10	12	16	9	9	7	15		9
75	1GV20MI419	SHAIK KAREMULLA	14	27		8	19	16	9	8	18	26		10

3	13	22	38	18	68	30	88	5	60	0	###	26	53
19	77	34	60	22	83	16	48	6	80	0	###	33	67
18	75	34	60	20	77	16	48	0	0	0	###	27	53
20	82	30	51	23	87	15	43	7	90	0	###	24	47
19	76	32	56	21	81	16	48	6	80	0	###	32	64
15	61	25	43	24	93	27	79	6	80	0	###	28	57
5	21	23	40	20	78	23	66	5	60	0	###	23	47
15	63	25	43	19	72	29	85	6	70	0	###	34	67
15	61	30	53	12	47	19	57	4	50	0	###	32	63
10	43	39	68	22	83	11	34	7	90	0	###	31	62
9	38	30	51	12	46	8	24	6	70	0	###	23	47
20	80	30	51	22	84	27	78	7	90	0	###	27	54
22	90	28	49	11	41	20	59	7	90	0	###	23	46
20	84	37	64	18	68	28	83	7	90	0	###	30	59
18	73	37	64	18	68	27	81	7	90	0	###	27	53
12	50	26	46	23	89	9	26	7	90	0	###	30	59
14	57	30	53	22	84	24	71	6	80	0	###	26	51
16	67	22	39	15	59	13	38	0	0	0	###	29	59
15	61	43	75	7	28	15	45	7	90	0	###	33	66
14	56	35	61	3	12	21	62	6	70	0	###	23	46
15	60	46	81	23	90	24	72	3	40	0	###	32	63
21	85	38	65	20	78	24	69	5	60	0	###	30	60
10	39	36	63	19	75	29	86	7	90	0	###	39	79
17	72	47	82	23	90	20	59	0	0	0	###	29	58
20	80	44	76	3	12	24	69	6	80	0	###	27	53
16	64	32	56	18	68	21	61	7	90	0	###	36	71
14	59	34	58	24	93	8	24	0	0	0	###	32	63
15	62	30	53	22	84	17	50	1	10	0	###	34	69
10	41	38	65	23	90	14	42	6	80	0	###	28	56
17	68	46	79	23	90	16	48	7	90	0	###	34	68
14	57	41	71	23	90	24	72	4	50	0	###	28	55
10	41	33	57	16	60	22	65	5	60	0	###	30	60
17	72	27	47	15	59	9	26	6	80	0	###	19	39
17	70	38	65	23	90	13	38	7	90	0	###	34	68
21	87	47	82	23	87	30	88	6	80	0	###	35	70
15	60	41	71	19	72	30	88	0	0	0	###	39	78
19	78	46	79	24	93	27	79	7	90	0	###	33	66
11	46	38	67	18	71	7	21	6	80	0	###	23	47
21	86	33	57	22	84	21	62	7	90	0	###	27	54
20	80	51	89	21	80	31	91	7	90	0	###	41	81

76	1GV20MI420	YALAMAKURI		13	27		7	18	18	9	8	16	26		9
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17	70	49	85	22	86	30	88	7	90	0	###	38	76
CO1	57	CO2	52	CO3	61	CO4	37	CO5	65	CO6	0	VTU	58

Target is 50% marks
Attainment level 1: 40% students scoring more than 50% marks
Attainment level 2: 45% students scoring more than 50% marks
Attainment level 3: 50% students scoring more than 50% marks

PERCENTAGE OF STUDENTS SCORING > 50% of Marks (For Internal Assessment)						
CO'S	CO1	CO2	CO3	CO4	CO5	CO6
Number of Students Scored above 50% marks	57	52	61	37	65	0
Number of Students attempted the test	76	76	76	76	76	76
% OF STUDENTS	75.00	68.42	80.26	48.68	85.53	
Attainment Level	3	3	3	2	3	

PERCENTAGE OF STUDENTS SCORING > 50% of marks (For University Examination)	
Number of Students Scored above 50 % of Marks	58
Number of Students attempted the Examination	76
% OF STUDENTS	76.32
Attainment Level	3

Calculation for CO attainment by direct assessment (40% weightage for IA & 60% SEE marks)	Attainment
CO1	0.76
CO2	0.73
CO3	0.78
CO4	0.65
CO5	0.80
CO6	

CO attainment using Course survey	
CO1	0.844
CO2	0.811
CO3	0.867
CO4	0.833
CO5	0.789
CO6	

Overall CO attainment	
CO1	0.775
CO2	0.747
CO3	0.797
CO4	0.689
CO5	0.798
CO6	

PO MAPPING

CO'S	1	2	3	4	5	6	7	8	9	10	11	12
CO1	2	1										
CO2	2	2										
CO3		2										
CO4	3	2					1					
CO5	1											
CO6												
Total	8	7	0	0	0	0	1	0	0	0	0	0
PO AVERAGE	2.00	1.75					1.00					

PSO MAPPING

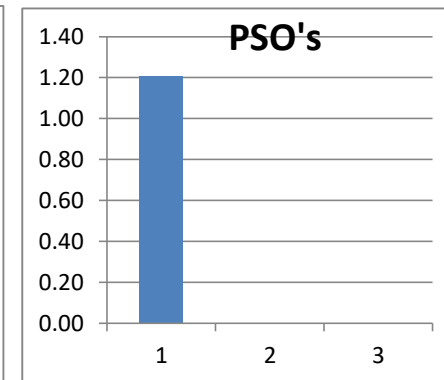
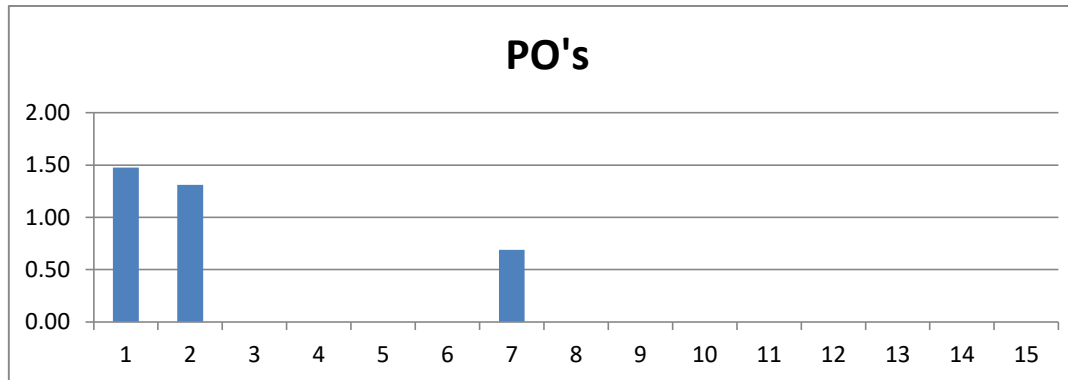
CO'S	1	2	3
CO1	1		
CO2	2		
CO3	2		
CO4	2		
CO5	1		
CO6			
Total	8	0	0
PSO AVERAGE	1.60		

ATTAINMENT

CO'S	1	2	3	4	5	6	7	8	9	10	11	12
CO1	1.55	0.78										
CO2	1.49	1.49										
CO3		1.59										
CO4	2.07	1.38					0.69					
CO5	0.80											
CO6												
PO AVERAGE	1.48	1.31					0.69					

ATTAINMENT

CO'S	1	2	3
CO1	0.78		
CO2	1.49		
CO3	1.59		
CO4	1.38		
CO5	0.80		
CO6			
PSO AVERAGE	1.21		



Prepared by
Dr. P D Sudersanan, Dr.TTIT, K.G.F.



Dr.T.Thimmaiah Institute of Technology

Oorgaam, K.G.F-563120

SEM	4th
Subject	MINE SURVEYING-2
Batch	2021-22

Name of the faculty	P.VIKRAM
Subject code:	18MN53
Total Students	39

CO'S	Description
CO1	Understand the basic concept of surface mining and its associated methods for various kinds Mineral productions.
CO2	Estimate the number of drills and heavy earth moving machinery required for medium to very hard rocks during surface mining operation.
CO3	To analyze the safety of machineries and slopes during various surface mining operation.
CO4	
CO5	
CO6	

Grading Scale	Level
Score < 40	0
Score 40 to 45	1
Score 45 to 50	2
Score > 50	3
Target Percentage	50

CO's	T1	T2	T3	A	T	Q	Total Marks	External Marks
CO1	30			10			40	60
CO2		30			10		40	
CO3			30			10	40	
CO4							0	
CO5							0	
CO6							0	

Sl No	USN	Students Name	CO Marks in Tests												Attainment of CO's												VTU	
			Test 1			A	Test 2			T	Test 3			Q	CO1		CO2		CO3		CO4		CO5		CO6		All CO	
			CO1	CO3	CO4	CO1	CO1	CO2	CO3	CO2	CO1	CO2	CO3	CO3	M	%	M	%	M	%	M	%	M	%	M	%	M	%
1	GV17MI025	SUDHAKAR S	17			10		20		10			22	10	27	68	30	75	32	80	0	###	0	###	0	###	12	20
2	GV17MI030	YESHKUMAR	17			10		17		10			18	10	27	68	27	68	28	70	0	###	0	###	0	###	27	45
3	GV17MI031	YUVARAJ	26			10		26		10			28	10	36	90	36	90	38	95	0	###	0	###	0	###	21	35
4	GV18MI003	ASHFAQ P	28			10		27		10			26	10	38	95	37	93	36	90	0	###	0	###	0	###	41	68
5	GV18MI005	AVINASH	27			10		26		10			25	10	37	93	36	90	35	88	0	###	0	###	0	###	30	50
6	GV18MI007	BADRINATH B	25			10		25		10			26	10	35	88	35	88	36	90	0	###	0	###	0	###	21	35
7	GV18MI010	ISHAPPA	20			10		21		10			22	10	30	75	31	78	32	80	0	###	0	###	0	###	24	40
8	GV18MI011	KARTHIK P	15			10		20		10			21	10	25	63	30	75	31	78	0	###	0	###	0	###	14	23
9	GV18MI012	KIRAN KUMAR EMM	25			10		25		10			26	10	35	88	35	88	36	90	0	###	0	###	0	###	22	37
10	GV18MI013	KIRAN NADAGOUDA	15			10		20		10			25	10	25	63	30	75	35	88	0	###	0	###	0	###	21	35
11	GV18MI014	KUMAR MARUTHI S	25			10		25		10			26	10	35	88	35	88	36	90	0	###	0	###	0	###	35	58
12	GV18MI016	M DEVENDRA NAIDU	25			10		25		10			22	10	35	88	35	88	32	80	0	###	0	###	0	###	29	48
13	GV18MI017	MANOJ RANAVATH	20			10		20		10			26	10	30	75	30	75	36	90	0	###	0	###	0	###	21	35
14	GV18MI019	MRUTHUNJAY KUM	27			10		27		10			24	10	37	93	37	93	34	85	0	###	0	###	0	###	29	48
15	GV18MI021	NITHIN M S	28			10		28		10			29	10	38	95	38	95	39	98	0	###	0	###	0	###	36	60
16	GV18MI023	PRABHU P	20			10		21		10			23	10	30	75	31	78	33	83	0	###	0	###	0	###	45	75
17	GV18MI024	PRADEEP V	25			10		22		10			22	10	35	88	32	80	32	80	0	###	0	###	0	###	12	20
18	GV18MI026	PUNEETH NJ	28			10		28		10			26	10	38	95	38	95	36	90	0	###	0	###	0	###	42	70
19	GV18MI027	PURUSHOTHAMAN V	28			10		28		10			30	10	38	95	38	95	40	100	0	###	0	###	0	###	35	58
20	GV18MI028	RAGHUVARAN MS	20			10		20		10			22	10	30	75	30	75	32	80	0	###	0	###	0	###	24	40
21	GV18MI031	SASIKUMAR R	20			10		22		10			27	10	30	75	32	80	37	93	0	###	0	###	0	###	28	47
22	GV18MI033	SUDHAKAR KS	20			10		22		10			25	10	30	75	32	80	35	88	0	###	0	###	0	###	29	48
23	GV18MI035	THIRUNAVUKKARA	18			10		20		10			21	10	28	70	30	75	31	78	0	###	0	###	0	###	32	53
24	GV18MI037	VIGNESH S	18			10		18		10			18	10	28	70	28	70	28	70	0	###	0	###	0	###	23	38
25	GV16MI041	MAHESH	22			10		24		10			20	10	32	80	34	85	30	75	0	###	0	###	0	###	25	42
26	GV19MI400	ANEES A	28			10		24		10			25	10	38	95	34	85	35	88	0	###	0	###	0	###	39	65
27	GV19MI401	ARVIND KUMAR V	26			10		24		10			24	10	36	90	34	85	34	85	0	###	0	###	0	###	36	60
28	GV19MI402	ASHLEY JOHN PAUL	22			10		22		10			24	10	32	80	32	80	34	85	0	###	0	###	0	###	21	35
29	GV19MI403	BASAVARAJ	25			10		25		10			24	10	35	88	35	88	34	85	0	###	0	###	0	###	21	35
30	GV19MI404	BOYA VINAY	20			10		20		10			23	10	30	75	30	75	33	83	0	###	0	###	0	###	23	38
31	GV19MI405	HARIKIRAN M	25			10		26		10			25	10	35	88	36	90	35	88	0	###	0	###	0	###	25	42
32	GV19MI407	JASPER P	25			10		25		10			25	10	35	88	35	88	35	88	0	###	0	###	0	###	25	42
33	GV19MI408	MICAH JOHN SIMEO	20			10		21		10			25	10	30	75	31	78	35	88	0	###	0	###	0	###	24	40
34	GV19MI409	MITHUN RAHUL B	23			10		24		10			25	10	33	83	34	85	35	88	0	###	0	###	0	###	26	43
35	GV19MI410	MOHAN	25			10		25		10			24	10	35	88	35	88	34	85	0	###	0	###	0	###	24	40
36	GV19MI411	SALEEM A	25			10		22		10			24	10	35	88	32	80	34	85	0	###	0	###	0	###	21	35

37	GV19MI413	SHOHEB M	25			10		25		10			23	10
38	GV19MI414	SHREYAS KAMMALA	28			10		27		10			22	10
39	GV19MI415	SIDDAROODHA BAT	25			10		24		10			24	10

35	88	35	88	33	83	0	###	0	###	0	###	33	55
38	95	37	93	32	80	0	###	0	###	0	###	26	43
35	88	34	85	34	85	0	###	0	###	0	###	33	55
CO1	39	CO2	39	CO3	39	CO4	0	CO5	0	CO6	0	VTU	12

TARGET is 50% marks
Attainment level 1: 40% students scoring more than 50% marks
Attainment level 2: 45% students scoring more than 50% marks
Attainment level 3: 50% students scoring more than 50% marks

PERCENTAGE OF STUDENTS SCORING > 50% of Marks (For Internal Assessment)						
CO'S	CO1	CO2	CO3	CO4	CO5	CO6
Number of Students Scored above 50% of Marks	39	39	39	0	0	0
Number of Students attempted the test	39	39	39	39	39	39
% OF STUDENTS	100.00	100.00	100.00			
Attainment Level	3	3	3			

PERCENTAGE OF STUDENTS SCORING > 50% of Marks (For University Examination)	
Number of Students Scored above 50% of Marks	12
Number of Students attempted the Examination	39
% OF STUDENTS	30.76923077
Attainment Level	0

Calculation for CO attainment by direct assessment (40% weightage for IA & 60% SEE marks)	Attainment
CO1	0.58
CO2	0.58
CO3	0.58
CO4	
CO5	
CO6	

CO attainment using Course survey	
CO1	0.6
CO2	0.6
CO3	0.6
CO4	
CO5	
CO6	

Overall CO attainment (80% weightage for direct & 20% for indirect attainment)	
CO1	0.588
CO2	0.588
CO3	0.588
CO4	
CO5	
CO6	

PO MAPPING

CO'S	1	2	3	4	5	6	7	8	9	10	11	12
CO1	2	2	2	1	2			3	3			
CO2	2	2	2	1	2			3	3			
CO3	2	2	2	1	2			3	3			
CO4												
CO5												
CO6												
Total	6	6	6	3	6	0	0	9	9	0	0	0
PO AVERAGE	2.00	2.00	2.00	1.00	2.00			3.00	3.00			

PSO MAPPING

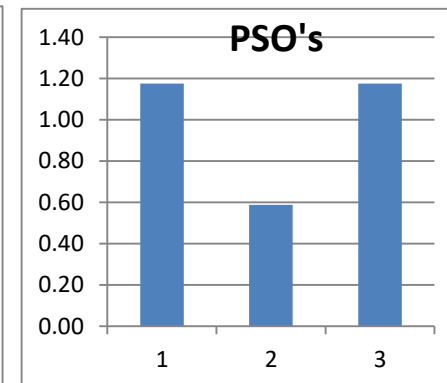
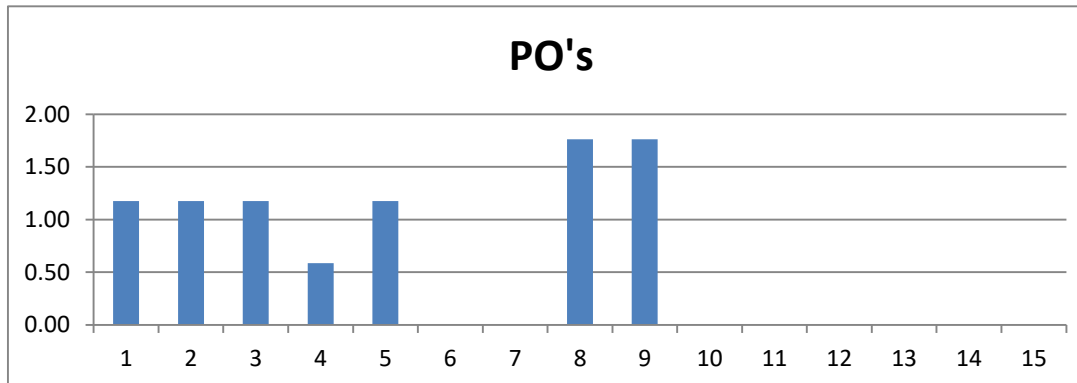
CO'S	1	2	3
CO1	2	1	2
CO2	2	1	2
CO3	2	1	2
CO4			
CO5			
CO6			
Total	6	3	6
PSO AVERAGE	2.00	1.00	2.00

ATTAINMENT

CO'S	1	2	3	4	5	6	7	8	9	10	11	12
CO1	1.18	1.18	1.18	0.59	1.18			1.76	1.76			
CO2	1.18	1.18	1.18	0.59	1.18			1.76	1.76			
CO3	1.18	1.18	1.18	0.59	1.18			1.76	1.76			
CO4												
CO5												
CO6												
PO AVERAGE	1.18	1.18	1.18	0.59	1.18			1.76	1.76			

ATTAINMENT

CO'S	1	2	3
CO1	1.18	0.59	1.18
CO2	1.18	0.59	1.18
CO3	1.18	0.59	1.18
CO4			
CO5			
CO6			
PSO AVERAGE	1.18	0.59	1.18



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