COs-POs - FIRST YEAR

MECHANICAL

2018-2019

SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY
SIRA ROAD, TUMKUR- 572 106.

DEPARTMENT OF MECHANICAL ENGINEERING

SUBJECT	ENGINEERING GRAPHICS	SUBJECT CODE	18EGDL25

COURSE OUTCOME

CO1	Prepare engineering drawings as per BIS conventions mentioned in the relevant codes.
CO2	Produce computer generated drawings using CAD software
CO3	Use the knowledge of orthographic projections to represent engineering information/concepts and present the same in the form of drawings.
CO4	Develop isometric drawings of simple objects reading the orthographic projections of those objects
CO5	Convert pictorial and isometric views of simple objects to orthographic views

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, 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: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

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 the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

H.O.D
Dept. of Mechanical
S.I.E.T., TUMKUR -8

PRINCIPAL
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COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME	RAVI KUMAR K R											
BRANCH	ME			ACADEMIC YEAR			2018-19					
COURSE	B.E	SEMESTER	II	SECTION	-							
SUBJECT	ENGINEERING GRAPHICS					SUBJECT CODE	18EGDL25					
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2			3	1		1	1	3		2
CO2	3	2			3	1		1	1	3		2
CO3	3	2			3	1		1	1	3		2
CO4	3	2			3	1	1		1	3		1
CO5	3	2			3				1	3		2
AVERAGE	3	2			3	1	1	1	1	3		1.8
OVERALL MAPPING OF SUBJECT												1.86

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	68.13	2.04	1.36			2.04	0.68		0.68	0.68	2.04		1.36
CO2	80.64	2.41	1.61			2.41	0.80		0.80	0.80	2.41		1.61
CO3	67.91	2.03	1.35			2.03	0.67		0.67	0.67	2.03		1.35
CO4	68.13	2.04	1.36			2.04	0.68	0.68		0.68	2.04		0.68
CO5	67.91	2.03	1.35			2.03				0.67	2.03		1.35
AVERAGE	70.54	2.11	1.40			2.11	0.70	0.68	0.71	0.70	2.11		1.27
FINAL ATTAINMENT LEVEL													1.31

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Academic year	2018-19			SEM	I		Total strength						Subject	ENGINEERING GRAPHICS				Subject Code	18EGDL15									
SEM:I	IA TEST I(30M)			IA TEST II(30M)			IA TEST A(30M)			ASSIGNEMENT / QUIZ(10 M)					SEE MARK(60M)						Total Cos ATTAINMENT					% of individual CO				
USN	CO1	CO2	TOTAL	CO3	CO4	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	TOTAL	CO1=34	CO2=44	CO3=34	CO4=34	CO5=34	CO1	CO2	CO3	CO4	CO5
1SV18CV001	5	5	10	5	5	10	5	5	10	2	2	2	2	2	7.4	7.4	7.4	7.4	7.4	37	14.4	19.4	14.4	14.4	14.4	0.42	0.44	0.42	0.42	0.42
1SV18CV002	14	15	29	14	15	29	14	15	29	2	2	2	2	2	11.4	11.4	11.4	11.4	11.4	57	27.4	42.4	28.4	27.4	28.4	0.81	0.96	0.84	0.81	0.84
1SV18CV003	13	17	30	13	17	30	13	17	30	2	2	2	2	2	11.6	11.6	11.6	11.6	11.6	58	26.6	43.6	30.6	26.6	30.6	0.78	0.99	0.90	0.78	0.90
1SV18CV004	18	11	29	18	11	29	18	11	29	2	2	2	2	2	11.6	11.6	11.6	11.6	11.6	58	31.6	42.6	24.6	31.6	24.6	0.93	0.97	0.72	0.93	0.72
1SV18CV005	12	4	16	12	4	16	12	4	16	2	2	2	2	2	10	10	10	10	10	50	24	28	18	24	16	0.71	0.64	0.47	0.71	0.47
1SV18CV007	17	12	29	17	12	29	17	12	29	2	2	2	2	2	10.8	10.8	10.8	10.8	10.8	54	29.8	41.8	24.8	29.8	24.8	0.88	0.95	0.73	0.88	0.73
1SV18CV008	15	14	29	15	14	29	15	14	29	2	2	2	2	2	11.8	11.8	11.8	11.8	11.8	59	28.8	42.8	27.8	28.8	27.8	0.85	0.97	0.82	0.85	0.82
1SV18CV009	14	13	27	14	13	27	14	13	27	2	2	2	2	2	8.4	8.4	8.4	8.4	8.4	42	24.4	37.4	23.4	24.4	23.4	0.72	0.85	0.68	0.72	0.69
1SV18CV010	1	9	10	1	9	10	1	9	10	2	2	2	2	2	0	0	0	0	0	0	1	12	11	3	11	0.09	0.27	0.32	0.09	0.32
1SV18CV011	16	13	29	16	13	29	16	13	29	2	2	2	2	2	11	11	11	11	11	55	29	42	26	29	26	0.85	0.95	0.76	0.85	0.76
1SV18CV012	19	9	28	19	9	28	19	9	28	2	2	2	2	2	10.2	10.2	10.2	10.2	10.2	51	31.2	40.2	21.2	31.2	21.2	0.92	0.91	0.62	0.92	0.62
1SV18CV013	10	20	30	10	20	30	10	20	30	2	2	2	2	2	11.8	11.8	11.8	11.8	11.8	59	23.8	43.8	33.8	23.8	33.8	0.70	1.00	0.99	0.70	0.99
1SV18CV014	13	16	29	13	16	29	13	16	29	2	2	2	2	2	10.2	10.2	10.2	10.2	10.2	51	25.2	41.2	28.2	25.2	28.2	0.74	0.94	0.83	0.74	0.83
1SV18CV015	17	11	28	17	11	28	17	11	28	2	2	2	2	2	11.4	11.4	11.4	11.4	11.4	57	30.4	41.4	24.4	30.4	24.4	0.89	0.94	0.72	0.89	0.72
1SV18CV016	14	10	24	14	10	24	14	10	24	2	2	2	2	2	7.6	7.6	7.6	7.6	7.6	38	23.6	33.6	19.6	23.6	19.6	0.69	0.76	0.58	0.69	0.58
1SV18CV017	17	12	29	17	12	29	17	12	29	2	2	2	2	2	11.6	11.6	11.6	11.6	11.6	58	30.6	42.6	25.6	30.6	25.6	0.90	0.97	0.75	0.90	0.75
1SV18CV018	14	14	28	14	14	28	14	14	28	2	2	2	2	2	10.6	10.6	10.6	10.6	10.6	53	26.6	40.6	26.6	26.6	26.6	0.78	0.92	0.78	0.78	0.78
1SV18CV019	15	10	25	15	10	25	15	10	25	2	2	2	2	2	11.8	11.8	11.8	11.8	11.8	59	32.8	42.8	23.8	32.8	23.8	0.96	0.97	0.70	0.96	0.70
1SV18CV020	14	10	24	14	10	24	14	10	24	2	2	2	2	2	9.6	9.6	9.6	9.6	9.6	48	25.6	35.6	21.6	25.6	21.6	0.75	0.81	0.64	0.75	0.64
1SV18CV021	0	0	0	0	0	0	0	0	0	2	2	2	2	2	0	0	0	0	0	0	2	2	2	2	2	0.06	0.05	0.06	0.06	0.06
1SV18CV023	13	16	29	13	16	29	13	16	29	2	2	2	2	2	11.2	11.2	11.2	11.2	11.2	56	26.2	42.2	29.2	26.2	29.2	0.77	0.96	0.86	0.77	0.86
1SV18CV024	15	13	28	15	13	28	15	13	28	2	2	2	2	2	11	11	11	11	11	55	28	41	26	28	26	0.82	0.93	0.76	0.82	0.76
1SV18CV025	14	4	18	14	4	18	14	4	18	2	2	2	2	2	10.8	10.8	10.8	10.8	10.8	54	26.8	30.8	16.8	26.8	16.8	0.79	0.70	0.49	0.79	0.49
1SV18CV026	11	17	28	11	17	28	11	17	28	2	2	2	2	2	10.8	10.8	10.8	10.8	10.8	54	23.8	40.8	29.8	23.8	29.8	0.70	0.93	0.88	0.70	0.88
1SV18CV027	2	27	29	2	27	29	2	27	29	2	2	2	2	2	11.2	11.2	11.2	11.2	11.2	56	15.2	42.2	40.2	15.2	40.2	0.45	0.96	1.18	0.45	1.18
1SV18CV028	12	16	28	12	16	28	12	16	28	2	2	2	2	2	11.8	11.8	11.8	11.8	11.8	59	25.8	41.8	29.8	25.8	29.8	0.76	0.95	0.88	0.76	0.88
1SV18CV029	14	16	30	14	16	30	14	16	30	2	2	2	2	2	11.6	11.6	11.6	11.6	11.6	58	27.6	43.6	29.6	27.6	29.6	0.81	0.99	0.87	0.81	0.87
1SV18CV030	21	9	30	21	9	30	21	9	30	2	2	2	2	2	11.8	11.8	11.8	11.8	11.8	59	34.8	43.8	22.8	34.8	22.8	1.02	1.00	0.67	1.02	0.67
1SV18CV031	11	16	27	11	16	27	11	16	27	2	2	2	2	2	7	7	7	7	7	35	20	36	25	20	25	0.59	0.82	0.74	0.59	0.74
1SV18CV032	1	17	18	1	17	18	1	17	18	2	2	2	2	2	10.6	10.6	10.6	10.6	10.6	53	13.6	30.6	29.6	13.6	29.6	0.40	0.70	0.87	0.40	0.87
1SV18CV033	13	15	28	13	15	28	13	15	28	2	2	2	2	2	10	10	10	10	10	50	25	40	27	25	27	0.74	0.91	0.79	0.74	0.79
1SV18CV034	1	9	10	1	9	10	1	9	10	2	2	2	2	2	1	1	1	1	1	5	4	11	12	4	12	0.12	0.30	0.35	0.12	0.35
1SV18CV035	13	8	21	13	8	21	13	8	21	2	2	2	2	2	6	6	6	6	6	30	21	29	16	21	16	0.62	0.66	0.47	0.62	0.47
1SV18CV036	13	15	28	13	15	28	13	15	28	2	2	2	2	2	11.8	11.8	11.8	11.8	11.8	59	26.8	41.8	28.8	26.8	28.8	0.79	0.95	0.85	0.79	0.85
1SV18CV037	11	18	29	11	18	29	11	18	29	2	2	2	2	2	5.4	5.4	5.4	5.4	5.4	27	18.4	36.4	25.4	18.4	25.4	0.54	0.83	0.75	0.54	0.75
1SV18ME001	1	10	11	1	10	11	1	10	11	2	2	2	2	2	7.8	7.8	7.8	7.8	7.8	39	10.8	20.8	19.8	10.8	19.8	0.32	0.47	0.58	0.32	0.58
1SV18ME002	11	19	30	11	19	30	11	19	30	2	2	2	2	2	11.8	11.8	11.8	11.8	11.8	59	24.8	43.8	32.8	24.8	32.8	0.73	1.00	0.96	0.73	0.96
1SV18ME003	1	9	10	1	9	10	1	9	10	2	2	2	2	2	0	0	0	0	0	0	3	12	11	3	11	0.09	0.27	0.32	0.09	0.32
1SV18ME004	14	16	30	14	16	30	14	16	30	2	2	2	2	2	11.8	11.8	11.8	11.8	11.8	59	27.8	43.8	29.8	27.8	29.8	0.82	1.00	0.88	0.82	0.88
1SV18ME005	14	12	26	14	12	26	14	12	26	2	2	2	2	2	10.6	10.6	10.6	10.6	10.6	53	26.6	38.6	24.6	26.6	24.6	0.78	0.88	0.72	0.78	0.72
1SV18ME007	0	0	0	0	0	0	0	0	0	2	2	2	2	2	0	0	0	0	0	0	2	2	2	2	2	0.06	0.05	0.06	0.06	0.06
1SV18ME008	13	5	18	13	5	18	13	5	18	2	2	2	2	2	9	9	9	9	9	45	24	29	16	24	16	0.71	0.66	0.47	0.71	0.47
1SV18ME009	12	14	26	12	14	26	12	14	26	2	2	2	2	2	10.6	10.6	10.6	10.6	10.6	53	24.6	38.6	26.6	24.6	26.6	0.72	0.88	0.78	0.72	0.78
1SV18ME010	12	5	17	12	5	17	12	5	17	2	2	2	2	2	4.8	4.8	4.8	4.8	4.8	24	18.8	23.8	11.8	18.8	11.8	0.55	0.54	0.35	0.55	0.35
1SV18ME011	11	17	28	11	17	28	11	17	28	2	2	2	2	2	6	6	6	6	6	30	19	36	25	19	25	0.56	0.82	0.74	0.56	0.74
1SV18ME012	6	4	10	6	4	10	6	4	10	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	29	13.8	17.8	11.8	13.8	11.8	0.41	0.40	0.35	0.41	0.35
1SV18ME013	11	17	28	11	17	28	11	17	28	2	2	2	2	2	10.6	10.6	10.6	10.6	10.6	53	23.6	40.6	29.6	23.6	29.6	0.69	0.92	0.87	0.69	0.87
1SV18EC001	13	10	23	13	10	23	13	10	23	2	2	2	2	2	2.2	2.2	2.2	2.2	2.2	11	17.2	27.2	14.2	17.2	14.2	0.51	0.62	0.42	0.51	0.42
1SV18EC002	13	16	29	13	16	29	13	16	29	2	2	2	2	2	9.4	9.4	9.4	9.4	9.4	47	24.4	40.4	27.4	24.4	27.4	0.72	0.92	0.81	0.72	0.81
1SV18EC003	11	14	25	11	14	25	11	14	25	2	2	2	2	2	9.2	9.2	9.2	9.2	9.2	46	22.2	36.2	25.2	22.2	25.2	0.65	0.82	0.74	0.65	0.74
1SV18EC004	11	16	27	11	16	27	11	16	27	2	2	2	2	2	8.6	8.6	8.6	8.6	8.6	43	21.6	37.6	26.6	21.6	26.6	0.64	0.85	0.78	0.64	0.78

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1SV18EC005	14	15	29	14	15	29	14	15	29	2	2	2	2	2	10	10	10	10	10	50	26	41	27	26	27	0.76	0.93	0.79	0.76	0.79
1SV18EC006	11	18	29	11	18	29	11	18	29	2	2	2	2	2	11.2	11.2	11.2	11.2	11.2	56	24.2	42.2	31.2	24.2	31.2	0.71	0.96	0.92	0.71	0.92
1SV18EC007	19	10	29	19	10	29	19	10	29	2	2	2	2	2	10.6	10.6	10.6	10.6	10.6	53	31.6	41.6	22.6	31.6	22.6	0.93	0.95	0.66	0.93	0.66
1SV18EC008	19	9	28	19	9	28	19	9	28	2	2	2	2	2	9.6	9.6	9.6	9.6	9.6	48	30.6	39.6	20.6	30.6	20.6	0.90	0.90	0.61	0.90	0.61
1SV18EC009	13	16	29	13	16	29	13	16	29	2	2	2	2	2	9.8	9.8	9.8	9.8	9.8	49	24.8	40.8	27.8	24.8	27.8	0.73	0.93	0.82	0.73	0.82
1SV18EC010	17	9	26	17	9	26	17	9	26	2	2	2	2	2	7.4	7.4	7.4	7.4	7.4	37	26.4	35.4	18.4	26.4	18.4	0.78	0.88	0.54	0.78	0.54
1SV18EC011	12	16	28	12	16	28	12	16	28	2	2	2	2	2	8.4	8.4	8.4	8.4	8.4	42	20.4	36.4	24.4	20.4	24.4	0.60	0.83	0.72	0.60	0.72
1SV18EC012	12	17	29	12	17	29	12	17	29	2	2	2	2	2	9.6	9.6	9.6	9.6	9.6	48	23.6	40.6	28.6	23.6	28.6	0.69	0.92	0.84	0.69	0.84
1SV18EC013	11	18	29	11	18	29	11	18	29	2	2	2	2	2	10.8	10.8	10.8	10.8	10.8	54	23.8	41.8	30.8	23.8	30.8	0.70	0.95	0.91	0.70	0.91
1SV18EC014	18	7	25	18	7	25	18	7	25	2	2	2	2	2	10.4	10.4	10.4	10.4	10.4	52	30.4	37.4	15.4	30.4	19.4	0.89	0.85	0.57	0.89	0.57
1SV18EC016	11	18	29	11	18	29	11	18	29	2	2	2	2	2	10.6	10.6	10.6	10.6	10.6	53	23.6	41.6	30.6	23.6	30.6	0.69	0.95	0.90	0.69	0.90
1SV18EC018	17	10	27	17	10	27	17	10	27	2	2	2	2	2	8.8	8.8	8.8	8.8	8.8	44	27.8	37.8	20.8	27.8	20.8	0.82	0.86	0.61	0.82	0.61
1SV18EC019	13	14	27	13	14	27	13	14	27	2	2	2	2	2	11	11	11	11	11	55	28	40	27	26	27	0.76	0.91	0.79	0.76	0.79
1SV18EC020	11	15	26	11	15	26	11	15	26	2	2	2	2	2	10.2	10.2	10.2	10.2	10.2	51	23.2	38.2	27.2	23.2	27.2	0.68	0.87	0.80	0.68	0.80
1SV18EC021	19	7	26	19	7	26	19	7	26	2	2	2	2	2	5.4	5.4	5.4	5.4	5.4	27	26.4	33.4	14.4	26.4	14.4	0.78	0.76	0.42	0.78	0.42
1SV18EC022	12	16	28	12	16	28	12	16	28	2	2	2	2	2	8.2	8.2	8.2	8.2	8.2	41	22.2	38.2	26.2	22.2	26.2	0.65	0.87	0.77	0.65	0.77
1SV18EC023	15	11	26	15	11	26	15	11	26	2	2	2	2	2	9.6	9.6	9.6	9.6	9.6	48	26.6	37.6	22.6	26.6	22.6	0.78	0.85	0.66	0.78	0.66
1SV18EC024	11	18	29	11	18	29	11	18	29	2	2	2	2	2	8.4	8.4	8.4	8.4	8.4	42	21.4	39.4	28.4	21.4	28.4	0.63	0.90	0.84	0.63	0.84
1SV18EE001	12	16	28	12	16	28	12	16	28	2	2	2	2	2	8.8	8.8	8.8	8.8	8.8	44	22.8	38.8	26.8	22.8	26.8	0.67	0.88	0.79	0.67	0.79
1SV18EE002	13	9	22	13	9	22	13	9	22	2	2	2	2	2	8.2	8.2	8.2	8.2	8.2	41	23.2	32.2	19.2	23.2	19.2	0.68	0.73	0.56	0.68	0.56
1SV18EE003	11	17	28	11	17	28	11	17	28	2	2	2	2	2	9.6	9.6	9.6	9.6	9.6	48	22.6	39.6	28.6	22.6	28.6	0.66	0.90	0.84	0.66	0.84
1SV18EE004	17	8	25	17	8	25	17	8	25	2	2	2	2	2	8.2	8.2	8.2	8.2	8.2	41	27.2	35.2	18.2	27.2	18.2	0.80	0.80	0.54	0.80	0.54
1SV18EE005	11	14	25	11	14	25	11	14	25	2	2	2	2	2	8.6	8.6	8.6	8.6	8.6	43	21.6	35.6	24.6	21.6	24.6	0.64	0.81	0.72	0.64	0.72
1SV18EE006	19	8	27	19	8	27	19	8	27	2	2	2	2	2	8.8	8.8	8.8	8.8	8.8	44	29.8	37.8	18.8	29.8	18.8	0.88	0.86	0.55	0.88	0.55
1SV18EE007	14	13	27	14	13	27	14	13	27	2	2	2	2	2	6	6	6	6	6	30	22	35	21	22	21	0.65	0.80	0.62	0.65	0.62
1SV18EE008	18	6	24	18	6	24	18	6	24	2	2	2	2	2	7.2	7.2	7.2	7.2	7.2	36	27.2	33.2	15.2	27.2	15.2	0.80	0.75	0.45	0.80	0.45
1SV18EE009	12	8	20	12	8	20	12	8	20	2	2	2	2	2	9	9	9	9	9	45	23	31	19	23	19	0.68	0.70	0.56	0.68	0.56
1SV18EE010	18	6	24	18	6	24	18	6	24	2	2	2	2	2	6.6	6.6	6.6	6.6	6.6	33	26.6	32.6	14.6	26.6	14.6	0.78	0.74	0.43	0.78	0.43
1SV18EE011	13	14	27	13	14	27	13	14	27	2	2	2	2	2	5.4	5.4	5.4	5.4	5.4	27	20.4	34.4	21.4	20.4	21.4	0.60	0.78	0.63	0.60	0.63
1SV18EE012	11	9	20	11	9	20	11	9	20	2	2	2	2	2	9.2	9.2	9.2	9.2	9.2	46	22.2	31.2	20.2	22.2	20.2	0.65	0.71	0.59	0.65	0.59
1SV18EE013	11	13	24	11	13	24	11	13	24	2	2	2	2	2	6.8	6.8	6.8	6.8	6.8	34	19.8	32.8	21.8	19.8	21.8	0.58	0.75	0.64	0.58	0.64
TOTAL	1016	1010	2026	1016	1010	2026	1016	1010	2026	164	164	164	164	164	719.4	719.4	719.4	719.4	719.4	3597	1895.4	2909.4	1891.4	1895.4	1891.4	55.86	88.12	55.69	55.86	55.69
No of students	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
Average	12.39	12.32	24.71	12.39	12.32	24.71	12.39	12.32	24.71	2	2	2	2	2	8.77	8.77	8.77	8.77	8.77	43.87	23.16	35.48	23.09	23.16	23.09	68.13	80.64	67.91	68.13	67.91

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SHRIDEVI	**SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY** **SIRA ROAD, TUMKUR- 572 106.**

DEPARTMENT OF MECHANICAL ENGINEERING

SUBJECT	ENGINEERING GRAPHICS	SUBJECT CODE	18EGDL15

COURSE OUTCOME

CO1	Prepare engineering drawings as per BIS conventions mentioned in the relevant codes.
CO2	Produce computer generated drawings using CAD software
CO3	Use the knowledge of orthographic projections to represent engineering information/concepts and present the same in the form of drawings.
CO4	Develop isometric drawings of simple objects reading the orthographic projections of those objects
CO5	Convert pictorial and isometric views of simple objects to orthographic views

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, 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: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

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 the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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PRINCIPAL
SIET, TUMAKURU

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME	RAVI KUMAR K R											
BRANCH	ME			ACADEMIC YEAR		2018-19						
COURSE	B.E	SEMESTER	I	SECTION	-							
SUBJECT	ENGINEERING GRAPHICS			SUBJECT CODE	18EGDL15							

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2			3	1		1	1	3		2
CO2	3	2			3	1		1	1	3		2
CO3	3	2			3	1		1	1	3		2
CO4	3	2			3	1	1		1	3		1
CO5	3	2			3				1	3		2
AVERAGE	3	2			3	1	1	1	1	3		1.8
											OVERALL MAPPING OF SUBJECT	1.86

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	77.61	2.32	1.55			2.32	0.77		0.77	0.77	2.32		1.55
CO2	90.22	2.70	1.80			2.70	0.90		0.90	0.90	2.70		1.80
CO3	74.86	2.24	1.49			2.24	0.74		0.74	0.74	2.24		1.49
CO4	74.02	2.31	1.54			2.31	0.77	0.77		0.77	2.31		0.77
CO5	75.12	2.25	1.50			2.25				0.75	2.25		1.50
AVERAGE	78.96	2.36	1.57			2.36	0.79	0.77	0.80	0.78	2.36		1.42
												FINAL ATTAINMENT LEVEL	1.46

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Academic year	2018-19			SEM	I		Total strength			45		Subject	ENGINEERING GRAPHICS				Subject Code	18EGDL15								
SEM-I	IA TEST 1(20M)			IA TEST 2(20M)			IA TEST 3(20M)			ASSIGNMENT / QUIZ(10 M)					SEE MARKS(60)						Total Cos ATTAINMENT				% of individual CO				
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	TOTAL	CO1=34	CO2=34	CO3=34	CO4=34	CO5=34	CO1	CO2	CO3	CO4	CO5
1SV18C3001	6	21	27	13	14	27	13	14	27	2	2	2	2	2	11.2	11.2	11.2	11.2	11.2	56	19.2	47.2	27.2	26.2	27.2	0.56	1.07	0.80	0.77	0.80
1SV18C3002	17	8	25	12	13	25	11	14	25	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	29	24.8	27.8	20.8	18.8	21.8	0.73	0.63	0.61	0.55	0.64
1SV18C3003	15	13	28	12	16	28	15	13	28	2	2	2	2	2	10	10	10	10	10	50	27	37	28	27	25	0.79	0.84	0.82	0.79	0.74
1SV18C3004	15	13	28	16	12	28	11	17	28	2	2	2	2	2	11.2	11.2	11.2	11.2	11.2	56	28.2	42.2	25.2	24.2	30.2	0.83	0.96	0.74	0.71	0.89
1SV18C3005	18	12	30	12	18	30	13	17	30	2	2	2	2	2	12	12	12	12	12	60	32	38	32	27	31	0.94	0.86	0.94	0.79	0.91
1SV18C3006	15	9	24	16	8	24	14	10	24	2	2	2	2	2	6	6	6	6	6	30	23	33	16	22	18	0.68	0.75	0.47	0.65	0.53
1SV18C3007	9	18	27	9	18	27	9	18	27	2	2	2	2	2	10.2	10.2	10.2	10.2	10.2	51	21.2	39.2	30.2	21.2	30.2	0.62	0.89	0.89	0.62	0.89
1SV18C3008	15	12	27	15	12	27	15	12	27	2	2	2	2	2	10.8	10.8	10.8	10.8	10.8	54	27.8	39.8	24.8	27.8	24.8	0.82	0.91	0.73	0.82	0.73
1SV18C3009	15	13	28	15	13	28	15	13	28	2	2	2	2	2	9.8	9.8	9.8	9.8	9.8	49	26.8	39.8	24.8	26.8	24.8	0.79	0.90	0.73	0.79	0.73
1SV18C3010	16	12	28	16	12	28	16	12	28	2	2	2	2	2	7	7	7	7	7	35	25	37	21	25	21	0.74	0.84	0.62	0.74	0.62
1SV18C3011	14	16	30	14	16	30	14	16	30	2	2	2	2	2	11.6	11.6	11.6	11.6	11.6	58	27.6	43.6	29.6	27.6	29.6	0.81	0.99	0.87	0.81	0.87
1SV18C3012	17	12	29	17	12	29	17	12	29	2	2	2	2	2	11.4	11.4	11.4	11.4	11.4	57	30.4	42.4	25.4	30.4	25.4	0.89	0.96	0.75	0.89	0.75
1SV18C3013	19	10	29	19	10	29	19	10	29	2	2	2	2	2	11.6	11.6	11.6	11.6	11.6	58	32.6	42.6	23.6	32.6	23.6	0.96	0.97	0.69	0.96	0.69
1SV18C3014	12	18	30	12	18	30	12	18	30	2	2	2	2	2	11.6	11.6	11.6	11.6	11.6	58	25.6	43.6	31.6	25.6	31.6	0.75	0.99	0.93	0.75	0.93
1SV18C3015	15	13	28	15	13	28	15	13	28	2	2	2	2	2	11.2	11.2	11.2	11.2	11.2	56	28.2	41.2	26.2	28.2	26.2	0.83	0.94	0.77	0.83	0.77
1SV18C3017	14	14	28	14	14	28	14	14	28	2	2	2	2	2	11.2	11.2	11.2	11.2	11.2	56	27.2	41.2	27.2	27.2	27.2	0.80	0.94	0.80	0.80	0.80
1SV18C3018	15	9	24	15	9	24	15	9	24	2	2	2	2	2	6	6	6	6	6	30	23	31	17	23	17	0.68	0.73	0.50	0.68	0.50
1SV18C3019	13	16	29	13	16	29	13	16	29	2	2	2	2	2	10.8	10.8	10.8	10.8	10.8	54	25.8	41.8	28.8	25.8	28.8	0.76	0.95	0.85	0.76	0.85
1SV18C3020	13	14	27	13	14	27	13	14	27	2	2	2	2	2	10.8	10.8	10.8	10.8	10.8	54	25.8	39.8	26.8	25.8	26.8	0.76	0.90	0.79	0.76	0.79
1SV18C3021	28	2	30	28	2	30	28	2	30	2	2	2	2	2	10.8	10.8	10.8	10.8	10.8	54	40.8	41.8	14.8	40.8	14.8	1.20	0.97	0.44	1.20	0.44
1SV18C3022	15	15	28	13	15	28	13	15	28	2	2	2	2	2	9	9	9	9	9	45	24	39	26	24	26	0.71	0.89	0.76	0.71	0.76
1SV18C3023	18	10	28	18	10	28	18	10	28	2	2	2	2	2	11.2	11.2	11.2	11.2	11.2	56	31.2	41.2	23.2	31.2	23.2	0.92	0.94	0.68	0.92	0.68
1SV18C3024	16	13	29	16	13	29	16	13	29	2	2	2	2	2	11.6	11.6	11.6	11.6	11.6	58	29.6	42.6	26.6	29.6	26.6	0.87	0.97	0.78	0.87	0.78
1SV18C3025	13	16	29	13	16	29	13	16	29	2	2	2	2	2	11.2	11.2	11.2	11.2	11.2	56	26.2	42.2	29.2	26.2	29.2	0.77	0.96	0.86	0.77	0.86
1SV18C3026	12	16	28	12	16	28	12	16	28	2	2	2	2	2	7.8	7.8	7.8	7.8	7.8	39	21.8	37.8	25.8	21.8	25.8	0.64	0.86	0.76	0.64	0.76
1SV18C3027	18	11	29	18	11	29	18	11	29	2	2	2	2	2	12.8	12.8	12.8	12.8	12.8	64	32.8	43.8	25.8	32.8	25.8	0.96	1.00	0.76	0.96	0.76
1SV18C3028	12	17	29	12	17	29	12	17	29	2	2	2	2	2	11.4	11.4	11.4	11.4	11.4	57	25.4	42.4	30.4	25.4	30.4	0.75	0.98	0.89	0.75	0.89
1SV18C3029	17	12	29	17	12	29	17	12	29	2	2	2	2	2	11.2	11.2	11.2	11.2	11.2	56	30.2	42.2	25.2	30.2	25.2	0.89	0.96	0.74	0.89	0.74
1SV18C3030	13	12	25	13	12	25	13	12	25	2	2	2	2	2	8.8	8.8	8.8	8.8	8.8	44	23.8	35.8	22.8	23.8	22.8	0.70	0.81	0.67	0.70	0.67
1SV18C3031	12	16	28	12	16	28	12	16	28	2	2	2	2	2	10.2	10.2	10.2	10.2	10.2	51	24.2	40.2	28.2	24.2	28.2	0.71	0.91	0.83	0.71	0.83
1SV18C3032	12	16	28	12	16	28	12	16	28	2	2	2	2	2	10.2	10.2	10.2	10.2	10.2	51	24.2	40.2	28.2	24.2	28.2	0.71	0.91	0.83	0.71	0.83
1SV18C3033	11	18	29	11	18	29	11	18	29	2	2	2	2	2	8.8	8.8	8.8	8.8	8.8	44	21.8	39.8	28.8	21.8	28.8	0.64	0.90	0.85	0.64	0.85
1SV18C3034	10	17	27	10	17	27	10	17	27	2	2	2	2	2	10.2	10.2	10.2	10.2	10.2	51	22.2	39.2	29.2	22.2	29.2	0.65	0.89	0.86	0.65	0.86
1SV18C3035	16	10	26	16	10	26	16	10	26	2	2	2	2	2	5.4	5.4	5.4	5.4	5.4	27	23.4	33.4	17.4	23.4	17.4	0.69	0.76	0.51	0.69	0.51
1SV18C3036	13	12	25	13	12	25	13	12	25	2	2	2	2	2	8.6	8.6	8.6	8.6	8.6	43	23.6	35.6	22.6	23.6	22.6	0.69	0.81	0.66	0.69	0.66
1SV18C3038	17	12	29	17	12	29	17	12	29	2	2	2	2	2	9.6	9.6	9.6	9.6	9.6	48	28.6	40.6	23.6	28.6	23.6	0.84	0.91	0.69	0.84	0.69
1SV18C3039	13	17	30	13	17	30	13	17	30	2	2	2	2	2	11	11	11	11	11	55	26	43	30	26	30	0.76	0.98	0.88	0.76	0.88
1SV18C3040	13	9	22	13	9	22	13	9	22	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	29	20.8	29.8	16.8	20.8	16.8	0.61	0.68	0.49	0.61	0.49
1SV18C3041	12	17	29	12	17	29	12	17	29	2	2	2	2	2	10	10	10	10	10	50	24	41	29	24	29	0.71	0.93	0.85	0.71	0.85
1SV18C3042	18	12	30	18	12	30	18	12	30	2	2	2	2	2	10.4	10.4	10.4	10.4	10.4	52	30.4	42.4	24.4	30.4	24.4	0.89	0.96	0.72	0.89	0.72
1SV18C3043	17	13	30	17	13	30	17	13	30	2	2	2	2	2	11	11	11	11	11	55	30	43	26	30	26	0.88	0.98	0.76	0.88	0.76
1SV18C3044	13	15	28	13	15	28	13	15	28	2	2	2	2	2	8.4	8.4	8.4	8.4	8.4	42	23.4	38.4	25.4	23.4	25.4	0.69	0.87	0.75	0.69	0.75
1SV18C3045	11	18	29	11	18	29	11	18	29	2	2	2	2	2	11.4	11.4	11.4	11.4	11.4	57	24.4	42.4	31.4	24.4	31.4	0.72	0.96	0.92	0.72	0.92
1SV18C3046	18	10	28	18	10	28	18	10	28	2	2	2	2	2	10	10	10	10	10	50	30	40	22	30	22	0.88	0.91	0.65	0.88	0.65
1SV18C3047	12	15	27	12	15	27	12	15	27	2	2	2	2	2	9.4	9.4	9.4	9.4	9.4	47	23.4	38.4	26.4	23.4	26.4	0.69	0.87	0.78	0.69	0.78
TOTAL	951	604	1255	646	609	1255	642	613	1255	90	90	90	90	90	446.4	446.4	446.4	446.4	446.4	2232	1187.4	1780.4	1345.4	1178.4	1169.4	34.92	40.60	33.69	34.66	33.81
No of students	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45.00	45.00	45.00	45.00	45.00
Average	14.47	13.42	27.89	14.36	13.53	27.89	14.27	13.62	27.89	2	2	2	2	2	9.92	9.92	9.92	9.92	9.92	49.6	26.39	39.70	25.45	26.19	25.54	77.61	90.23	74.86	77.02	75.12

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SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING

ODD SEM

2018-19

SHRIDEVI	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY SIRA ROAD, TUMKUR- 572 106.

DEPARTMENT OF ME

SUBJECT	MATERIAL SCIENCE	SUBJECT CODE	17ME32

COURSE OUTCOME

CO1	Apply an engineering knowledge to demonstrate the behaviour of materials
CO2	Analyze the thin and thick cylinders and draw a stress distribution curve, also to create Mohrs circle diagram for plane stress conditions.
CO3	Determine the various forces and moments in beams
CO4	Evaluate the dimensions of mechanical elements for various applications.
CO5	Compare different strain energy methods and theories of failures in design of machineries

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, 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: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

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 the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	RAVI KUMAR K R				
BRANCH	ME	ACADEMIC YEAR	2018-19		
COURSE	B.E	SEMESTER	III	SECTION	
SUBJECT	MATERIAL SCIENCE	SUBJECT CODE	17ME32		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	1										
CO2	1	2										
CO3	1	3										
CO4	2	3										
CO5	3	2										
AVERAGE	2.2	2.2										
OVERALL MAPPING OF SUBJECT												2.2

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	55.37	1.66	0.55										
CO2	66.40	0.66	1.32										
CO3	49.62	0.49	1.48										
CO4	55.37	1.10	1.66										
CO5	49.62	1.48	0.99										
AVERAGE	55.27	1.07	1.20										
FINAL ATTAINMENT LEVEL													1.13

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Academic year	2018-19			SEM	III		Total strength			23		Subject	Materials Science			Subject Code	17ME32									
SEM:III	IA TEST 1(30M)			IA TEST 2(30M)			IA TEST 3(30M)			ASSIGNEMENT / QUIZ(10 M)					SEE MARKS(60)					Total Cos ATTAINMENT					% of individual CO				
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	TOTAL	CO1=34	CO2=44	CO3=34	CO4=34	CO5=34	CO1	CO2	CO3	CO4	CO5
1SV15ME012	11	10	21	11	10	21	11	10	21	2	2	2	2	2	3.4	3.4	3.4	3.4	3.4	17	16.4	26.4	15.4	16.4	15.4	0.48	0.60	0.45	0.48	0.45
1SV15ME061	12	11	23	12	11	23	12	11	23	2	2	2	2	2	3	3	3	3	3	15	17	28	16	17	16	0.50	0.64	0.47	0.50	0.47
1SV15ME088	13	10	23	13	10	23	13	10	23	2	2	2	2	2	3.6	3.6	3.6	3.6	3.6	18	18.6	28.6	15.6	18.6	15.6	0.55	0.65	0.46	0.55	0.46
1SV17ME001	13	6	19	13	6	19	13	6	19	2	2	2	2	2	4.8	4.8	4.8	4.8	4.8	24	19.8	25.8	12.8	19.8	12.8	0.58	0.59	0.38	0.58	0.38
1SV17ME003	14	10	24	14	10	24	14	10	24	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	21	20.2	30.2	16.2	20.2	16.2	0.59	0.69	0.48	0.59	0.48
1SV17ME004	12	11	23	12	11	23	12	11	23	2	2	2	2	2	4.4	4.4	4.4	4.4	4.4	22	18.4	29.4	17.4	18.4	17.4	0.54	0.67	0.51	0.54	0.51
1SV17ME006	11	17	28	11	17	28	11	17	28	2	2	2	2	2	7.2	7.2	7.2	7.2	7.2	36	20.2	37.2	26.2	20.2	26.2	0.59	0.85	0.77	0.59	0.77
1SV17ME007	11	19	30	11	19	30	11	19	30	2	2	2	2	2	6.6	6.6	6.6	6.6	6.6	33	19.6	38.6	27.6	19.6	27.6	0.58	0.88	0.81	0.58	0.81
1SV17ME008	12	15	27	12	15	27	12	15	27	2	2	2	2	2	6.4	6.4	6.4	6.4	6.4	32	20.4	35.4	23.4	20.4	23.4	0.60	0.80	0.69	0.60	0.69
1SV17ME011	13	6	19	13	6	19	13	6	19	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	26	20.2	26.2	13.2	20.2	13.2	0.59	0.60	0.39	0.59	0.39
1SV17ME012	12	6	18	12	6	18	12	6	18	2	2	2	2	2	3	3	3	3	3	15	17	23	11	17	11	0.50	0.52	0.32	0.50	0.32
1SV17ME013	13	15	28	13	15	28	13	15	28	2	2	2	2	2	6.8	6.8	6.8	6.8	6.8	34	21.8	36.8	23.8	21.8	23.8	0.64	0.84	0.70	0.64	0.70
1SV17ME014	11	14	25	11	14	25	11	14	25	2	2	2	2	2	5.4	5.4	5.4	5.4	5.4	27	18.4	32.4	21.4	18.4	21.4	0.54	0.74	0.63	0.54	0.63
1SV17ME015	13	11	24	13	11	24	13	11	24	2	2	2	2	2	7.6	7.6	7.6	7.6	7.6	38	22.6	33.6	20.6	22.6	20.6	0.66	0.76	0.61	0.66	0.61
1SV18ME400	11	2	13	11	2	13	11	2	13	2	2	2	2	2	2.8	2.8	2.8	2.8	2.8	14	15.8	17.8	6.8	15.8	6.8	0.46	0.40	0.20	0.46	0.20
1SV18ME401	13	8	21	13	8	21	13	8	21	2	2	2	2	2	2.4	2.4	2.4	2.4	2.4	12	17.4	25.4	12.4	17.4	12.4	0.51	0.58	0.36	0.51	0.36
1SV18ME402	12	12	24	12	12	24	12	12	24	2	2	2	2	2	4.6	4.6	4.6	4.6	4.6	23	18.6	30.6	18.6	18.6	18.6	0.55	0.70	0.55	0.55	0.55
1SV18ME403	11	6	17	11	6	17	11	6	17	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	21	17.2	23.2	12.2	17.2	12.2	0.51	0.53	0.36	0.51	0.36
1SV18ME404	13	9	22	13	9	22	13	9	22	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	21	19.2	28.2	15.2	19.2	15.2	0.56	0.64	0.45	0.56	0.45
1SV18ME405	13	15	28	13	15	28	13	15	28	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	26	20.2	35.2	22.2	20.2	22.2	0.59	0.80	0.65	0.59	0.65
1SV18ME406	13	11	24	13	11	24	13	11	24	2	2	2	2	2	3.4	3.4	3.4	3.4	3.4	17	18.4	29.4	16.4	18.4	16.4	0.54	0.67	0.48	0.54	0.48
1SV18ME407	14	4	18	14	4	18	14	4	18	2	2	2	2	2	0.4	0.4	0.4	0.4	0.4	2	16.4	20.4	6.4	16.4	6.4	0.48	0.46	0.19	0.48	0.19
1SV18ME408	13	11	24	13	11	24	13	11	24	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	21	19.2	30.2	17.2	19.2	17.2	0.56	0.69	0.51	0.56	0.51
TOTAL	284	239	523	284	239	523	284	239	523	46	46	46	46	46	103	103	103	103	103	515	433	672	388	433	388	12.74	15.27	11.41	12.74	11.41
NO OF AVERAGE	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23.00	23.00	23.00	23.00	23.00
AVERAGE	12.35	10.4	22.739	12.35	10.39	22.74	12.35	10.4	22.74	2	2	2	2	2	4.4783	4.48	4.478	4.478	4.478	22.39	18.83	29.22	16.87	18.83	16.87	55.37	66.40	49.62	55.37	49.62

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SHRIDEVI	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY SIRA ROAD, TUMKUR- 572 106.

DEPARTMENT OF ME

SUBJECT	BASIC THERMODYNAMICS	SUBJECT CODE	17ME33

COURSE OUTCOME

CO1	Explain fundamentals of thermodynamics and evaluate energy interactions across the boundary of thermodynamic systems.
CO2	Apply 1st law of thermodynamics to closed and open systems and determine quantity of energy transfers and change in properties.
CO3	Apply the knowledge of entropy and 2nd law of thermodynamics to solve numerical problems.
CO4	Interpret the behavior of pure substances and its application in practical problems, reversibility and irreversibility to solve numerical problems.
CO5	Evaluate thermodynamic properties of ideal and real gas mixtures using various relations.

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, 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: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

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 the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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SIET, TUMAKURU.

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	ARAHANTH				
BRANCH	ME	ACADEMIC YEAR	2018-19		
COURSE	B.E	SEMESTER	III	SECTION	
SUBJECT	BASIC THERMODYNAMICS	SUBJECT CODE	17ME33		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3											
CO2	3	2										
CO3	3	2										
CO4	3	2	1									
CO5	3		1									
AVERAGE	3	2	1									
OVERALL MAPPING OF SUBJECT												2.0

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	49.87	1.49											
CO2	57.41	1.72	1.14										
CO3	38.61	1.15	0.77										
CO4	49.87	1.49	0.99	0.49									
CO5	38.61	1.15		0.38									
AVERAGE	46.87	1.4	0.96	0.43									
FINAL ATTAINMENT LEVEL													0.93

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Academic year	2018-19			SEM	III		Total strength			23		Subject	Basic Thermodynamics				Subject Code		17ME33								
SEM:III	IA TEST 1(30M)			IA TEST 2(30M)			IA TEST 3(30M)			ASSIGNEMENT / QUIZ(10 M)					SEE MARKS(60)						Total Cos ATTAINMENT					% of individual CO				
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	TOTAL	CO1=34	CO2=44	CO3=34	CO4=34	CO5=34	CO1	CO2	CO3	CO4	CO5
1SV15ME012	12	9	21	12	9	21	12	9	21	2	2	2	2	2	3.2	3.2	3.2	3.2	3.2	16	17.2	26.2	14.2	17.2	14.2	0.51	0.60	0.42	0.51	0.42
1SV15ME061	11	10	21	11	10	21	11	10	21	2	2	2	2	2	2.4	2.4	2.4	2.4	2.4	12	15.4	25.4	14.4	15.4	14.4	0.45	0.58	0.42	0.45	0.42
1SV15ME088	12	4	16	12	4	16	12	4	16	2	2	2	2	2	3	3	3	3	3	15	17	21	9	17	9	0.50	0.48	0.26	0.50	0.26
1SV17ME001	13	5	18	13	5	18	13	5	18	2	2	2	2	2	1.8	1.8	1.8	1.8	1.8	9	16.8	21.8	8.8	16.8	8.8	0.49	0.50	0.26	0.49	0.26
1SV17ME003	11	9	20	11	9	20	11	9	20	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	21	17.2	26.2	15.2	17.2	15.2	0.51	0.60	0.45	0.51	0.45
1SV17ME004	12	4	16	12	4	16	12	4	16	2	2	2	2	2	2.8	2.8	2.8	2.8	2.8	14	16.8	20.8	8.8	16.8	8.8	0.49	0.47	0.26	0.49	0.26
1SV17ME006	11	16	27	11	16	27	11	16	27	2	2	2	2	2	3.2	3.2	3.2	3.2	3.2	16	16.2	32.2	21.2	16.2	21.2	0.48	0.73	0.62	0.48	0.62
1SV17ME007	13	17	30	13	17	30	13	17	30	2	2	2	2	2	5.4	5.4	5.4	5.4	5.4	27	20.4	37.4	24.4	20.4	24.4	0.60	0.85	0.72	0.60	0.72
1SV17ME008	14	10	24	14	10	24	14	10	24	2	2	2	2	2	2.8	2.8	2.8	2.8	2.8	14	18.8	28.8	14.8	18.8	14.8	0.55	0.65	0.44	0.55	0.44
1SV17ME011	14	5	19	14	5	19	14	5	19	2	2	2	2	2	4.8	4.8	4.8	4.8	4.8	24	20.8	25.8	11.8	20.8	11.8	0.61	0.59	0.35	0.61	0.35
1SV17ME012	11	4	15	11	4	15	11	4	15	2	2	2	2	2	2.8	2.8	2.8	2.8	2.8	14	15.8	19.8	8.8	15.8	8.8	0.46	0.45	0.26	0.46	0.26
1SV17ME013	11	16	27	11	16	27	11	16	27	2	2	2	2	2	6.6	6.6	6.6	6.6	6.6	33	19.6	35.6	24.6	19.6	24.6	0.58	0.81	0.72	0.58	0.72
1SV17ME014	12	15	27	12	15	27	12	15	27	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	21	18.2	33.2	21.2	18.2	21.2	0.54	0.75	0.62	0.54	0.62
1SV17ME015	12	10	22	12	10	22	12	10	22	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	21	18.2	28.2	16.2	18.2	16.2	0.54	0.64	0.48	0.54	0.48
1SV18ME400	13	2	15	13	2	15	13	2	15	2	2	2	2	2	0.2	0.2	0.2	0.2	0.2	1	15.2	17.2	4.2	15.2	4.2	0.45	0.39	0.12	0.45	0.12
1SV18ME401	11	8	19	11	8	19	11	8	19	2	2	2	2	2	0.2	0.2	0.2	0.2	0.2	1	13.2	21.2	10.2	13.2	10.2	0.39	0.48	0.30	0.39	0.30
1SV18ME402	13	3	16	13	3	16	13	3	16	2	2	2	2	2	2.2	2.2	2.2	2.2	2.2	11	17.2	20.2	7.2	17.2	7.2	0.51	0.46	0.21	0.51	0.21
1SV18ME403	11	4	15	11	4	15	11	4	15	2	2	2	2	2	1	1	1	1	1	5	14	18	7	14	7	0.41	0.41	0.21	0.41	0.21
1SV18ME404	12	7	19	12	7	19	12	7	19	2	2	2	2	2	2.4	2.4	2.4	2.4	2.4	12	16.4	23.4	11.4	16.4	11.4	0.48	0.53	0.34	0.48	0.34
1SV18ME405	11	17	28	11	17	28	11	17	28	2	2	2	2	2	2.4	2.4	2.4	2.4	2.4	12	15.4	32.4	21.4	15.4	21.4	0.45	0.74	0.63	0.45	0.63
1SV18ME406	14	8	22	14	8	22	14	8	22	2	2	2	2	2	2.8	2.8	2.8	2.8	2.8	14	18.8	26.8	12.8	18.8	12.8	0.55	0.61	0.38	0.55	0.38
1SV18ME407	13	4	17	13	4	17	13	4	17	2	2	2	2	2	0.4	0.4	0.4	0.4	0.4	2	15.4	19.4	6.4	15.4	6.4	0.45	0.44	0.19	0.45	0.19
1SV18ME408	12	4	16	12	4	16	12	4	16	2	2	2	2	2	2	2	2	2	2	10	16	20	8	16	8	0.47	0.45	0.24	0.47	0.24
TOTAL	279	191	470	279	191	470	279	191	470	46	46	46	46	46	65	65	65	65	65	325	390	581	302	390	302	11.5	13.2	8.9	11.5	8.9
NO OF STUDENTS	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
AVERAGE	12.13	8.3	20.435	12.1	8.304	20.43	12.13	8.3	20.435	2	2	2	2	2	2.8	2.8	2.8	2.8	2.8	14.13	16.96	25.26	13.13	16.96	13.13	49.87	57.41	38.62	49.87	38.62

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SHRIDEVI	**SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY** **SIRA ROAD, TUMKUR- 572 106.**

DEPARTMENT OF ME

SUBJECT	MECHANICS OF MATERIALS	SUBJECT CODE	17ME34

COURSE OUTCOME

CO1	Apply an engineering knowledge to demonstrate the behaviour of materials
CO2	Analyze the thin and thick cylinders and draw a stress distribution curve, also to create Mohrs circle diagram for plane stress conditions.
CO3	Determine the various forces and moments in beams
CO4	Evaluate the dimensions of mechanical elements for various applications.
CO5	Compare different strain energy methods and theories of failures in design of machineries

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, 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: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

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 the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	H RANGASWAMY				
BRANCH	ME	ACADEMIC YEAR	2018-19		
COURSE	B.E	SEMESTER	III	SECTION	
SUBJECT	MECHANICS OF MATERIALS	SUBJECT CODE	17ME34		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	1										
CO2	1	2										
CO3	1	3										
CO4	2	3										
CO5	3	2										
AVERAGE	2	2.2										
OVERALL MAPPING OF SUBJECT												2.1

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	51.30	1.53	0.51										
CO2	56.54	0.56	1.13										
CO3	36.21	0.36	1.08										
CO4	50.28	1.00	1.50										
CO5	40.18	1.20	0.80										
AVERAGE	50.51	1.026	1.106										
FINAL ATTAINMENT LEVEL													1.066

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Academic year	2018-19			SEM	III		Total strength			23		Subject	Mechanics of Materials			Subject Code	17ME34									
SEM:III	IA TEST 1(30M)			IA TEST 2(30M)			IA TEST 3(30M)			ASSIGNEMENT / QUIZ(10 M)					SEE MARKS(60)						Total Cos ATTAINMENT					% of individual CO				
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	TOTAL	CO1=34	CO2=44	CO3=34	CO4=34	CO5=34	CO1	CO2	CO3	CO4	CO5
1SV15ME012	6	13	19	4	16	20	7	14	21	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	21	12.2	23.2	22.2	13.2	20.2	0.36	0.53	0.65	0.39	0.59
1SV15ME061	7	9	16	8	7	15	8	9	17	2	2	2	2	2	0	0	0	0	0	0	9	19	9	10	11	0.26	0.43	0.26	0.29	0.32
1SV15ME088	0	0	0	0	0	0	0	0	0	2	2	2	2	2	0	0	0	0	0	0	2	2	2	2	2	0.06	0.05	0.06	0.06	0.06
1SV17ME001	17	3	20	16	5	21	11	11	22	2	2	2	2	2	1.6	1.6	1.6	1.6	1.6	8	20.6	22.6	8.6	14.6	14.6	0.61	0.51	0.25	0.43	0.43
1SV17ME003	9	12	21	8	12	20	14	8	22	2	2	2	2	2	3	3	3	3	3	15	14	25	17	19	13	0.41	0.57	0.50	0.56	0.38
1SV17ME004	9	10	19	17	5	22	17	5	22	2	2	2	2	2	1.4	1.4	1.4	1.4	1.4	7	12.4	30.4	8.4	20.4	8.4	0.36	0.69	0.25	0.60	0.25
1SV17ME006	13	10	23	13	9	22	15	9	24	2	2	2	2	2	4.6	4.6	4.6	4.6	4.6	23	19.6	29.6	15.6	21.6	15.6	0.58	0.67	0.46	0.64	0.46
1SV17ME007	19	10	29	17	11	28	14	16	30	2	2	2	2	2	8.8	8.8	8.8	8.8	8.8	44	29.8	37.8	21.8	24.8	26.8	0.88	0.86	0.64	0.73	0.79
1SV17ME008	12	8	20	17	4	21	14	8	22	2	2	2	2	2	5.4	5.4	5.4	5.4	5.4	27	19.4	32.4	11.4	21.4	15.4	0.57	0.74	0.34	0.63	0.45
1SV17ME011	14	5	19	15	2	17	17	1	18	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	26	21.2	27.2	9.2	24.2	8.2	0.62	0.62	0.27	0.71	0.24
1SV17ME012	18	2	20	14	5	19	12	9	21	2	2	2	2	2	0.2	0.2	0.2	0.2	0.2	1	20.2	18.2	7.2	14.2	11.2	0.59	0.41	0.21	0.42	0.33
1SV17ME013	13	13	26	13	14	27	13	15	28	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	29	20.8	33.8	21.8	20.8	22.8	0.61	0.77	0.64	0.61	0.67
1SV17ME014	12	12	24	15	7	22	12	11	23	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	21	18.2	33.2	13.2	18.2	17.2	0.54	0.75	0.39	0.54	0.51
1SV17ME015	13	10	23	16	9	25	12	12	24	2	2	2	2	2	4.8	4.8	4.8	4.8	4.8	24	19.8	32.8	15.8	18.8	18.8	0.58	0.75	0.46	0.55	0.55
1SV18ME400	12	10	22	16	8	24	17	6	23	2	2	2	2	2	0.4	0.4	0.4	0.4	0.4	2	14.4	28.4	10.4	19.4	8.4	0.42	0.65	0.31	0.57	0.25
1SV18ME401	17	8	25	16	11	27	12	14	26	2	2	2	2	2	0.4	0.4	0.4	0.4	0.4	2	19.4	26.4	13.4	14.4	16.4	0.57	0.60	0.39	0.42	0.48
1SV18ME402	13	0	13	12	2	14	12	3	15	2	2	2	2	2	6	6	6	6	6	30	21	20	10	20	11	0.62	0.45	0.29	0.59	0.32
1SV18ME403	7	1	8	8	2	10	8	1	9	2	2	2	2	2	1	1	1	1	1	5	10	12	5	11	4	0.29	0.27	0.15	0.32	0.12
1SV18ME404	21	2	23	12	12	24	14	11	25	2	2	2	2	2	0.4	0.4	0.4	0.4	0.4	2	23.4	16.4	14.4	16.4	13.4	0.69	0.37	0.42	0.48	0.39
1SV18ME405	13	12	25	14	9	23	14	10	24	2	2	2	2	2	3.2	3.2	3.2	3.2	3.2	16	18.2	31.2	14.2	19.2	15.2	0.54	0.71	0.42	0.56	0.45
1SV18ME406	12	7	19	12	8	20	14	7	21	2	2	2	2	2	3.4	3.4	3.4	3.4	3.4	17	17.4	24.4	13.4	19.4	12.4	0.51	0.55	0.39	0.57	0.36
1SV18ME407	18	2	20	12	7	19	11	10	21	2	2	2	2	2	0	0	0	0	0	0	20	16	9	13	12	0.59	0.36	0.26	0.38	0.35
1SV18ME408	12	7	19	16	4	20	11	10	21	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	21	18.2	29.2	10.2	17.2	16.2	0.54	0.663636	0.30	0.51	0.476471
TOTAL	287	166	453	291	169	460	279	200	479	46	46	46	46	46	68.2	68.2	68.2	68.2	68.2	341	401.2	571.2	283.2	393.2	314.2	11.80	12.98	8.33	11.56	9.24
No of Students	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
Average	12.48	7.22	19.696	12.7	7.348	20	12.13	8.7	20.826	2	2	2	2	2	2.97	2.97	2.97	2.97	2.97	14.83	17.44	24.83	12.31	17.10	13.66	51.30	56.44	36.21	50.28	40.18

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	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY SIRA ROAD, TUMKUR- 572 106.

DEPARTMENT OF ME

SUBJECT	METAL CASTING AND WELDING	SUBJECT CODE	17ME35A

COURSE OUTCOME

CO1	Apply the knowledge of metal cutting using basic machine tools fro the production of components
CO2	Choose the right cutting material and fluids and also evaluate cutting tool parameters for different machining operations
CO3	Evaluate tool life on the basis of wear and wear rate and also discuss the economics of machining process of various cutting tool
CO4	Apply the knowledge of sheet metal forming for production of components
CO5	Design different sheet metal dies for simple sheet metal components

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, 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: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

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 the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	CHETHAN K M				
BRANCH	ME	ACADEMIC YEAR	2018-19		
COURSE	B.E	SEMESTER	III	SECTION	
SUBJECT	METAL CASTING AND WELDING	SUBJECT CODE	17ME35A		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	1									
CO2	3	2										
CO3	3	2	1									
CO4	3	2										
CO5	3	2										
AVERAGE	3	2	1									
OVERALL MAPPING OF SUBJECT												2.0

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	47.03	1.41	0.94	0.47									
CO2	56.21	1.68	1.12										
CO3	52.17	1.56	1.04	0.52									
CO4	49.59	1.48	0.99										
CO5	49.59	1.48	0.99										
AVERAGE	50.91	1.52	1.01	0.49									
FINAL ATTAINMENT LEVEL													1.00

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Academic year	2018-19			SEM	III		Total strength		23		Subject	Metal Casting and Welding			Subject Code		17ME35A										
SEM:III	IA TEST 1(30M)			IA TEST 2(30M)			IA TEST 3(30M)			ASSIGNEMENT / QUIZ(10 M)					SEE MARKS(60)						Total Cos ATTAINMENT					% of individual CO				
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	TOTAL	CO1=34	CO2=44	CO3=34	CO4=34	CO5=34	CO1	CO2	CO3	CO4	CO5
1SV15ME012	6	7	13	13	7	20	14	14	28	2	2	2	2	2	2.2	2.2	2.2	2.2	2.2	11	10.2	24.2	11.2	18.2	18.2	0.30	0.55	0.33	0.54	0.54
1SV15ME061	2	1	3	7	14	21	10	5	15	2	2	2	2	2	0	0	0	0	0	0	4	10	16	12	7	0.12	0.23	0.47	0.21	0.21
1SV15ME088	8	7	15	14	11	25	15	13	28	2	2	2	2	2	2.4	2.4	2.4	2.4	2.4	12	12.4	25.4	15.4	19.4	17.4	0.36	0.58	0.45	0.51	0.51
1SV17ME001	0	0	0	7	3	10	14	5	19	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	21	6.2	13.2	9.2	20.2	11.2	0.18	0.30	0.27	0.33	0.33
1SV17ME003	8	11	19	12	9	21	15	5	20	2	2	2	2	2	4.6	4.6	4.6	4.6	4.6	23	14.6	29.6	15.6	21.6	11.6	0.43	0.67	0.46	0.34	0.34
1SV17ME004	4	1	5	13	2	15	9	5	14	2	2	2	2	2	4.4	4.4	4.4	4.4	4.4	22	10.4	20.4	8.4	15.4	11.4	0.31	0.46	0.25	0.34	0.34
1SV17ME006	12	15	27	15	14	29	15	15	30	2	2	2	2	2	3.6	3.6	3.6	3.6	3.6	18	17.6	35.6	19.6	20.6	20.6	0.52	0.81	0.58	0.61	0.61
1SV17ME007	15	15	30	15	15	30	15	15	30	2	2	2	2	2	7	7	7	7	7	35	24	39	24	24	24	0.71	0.89	0.71	0.71	0.71
1SV17ME008	12	5	17	14	7	21	15	13	28	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	29	19.8	26.8	14.8	22.8	20.8	0.58	0.61	0.44	0.61	0.61
1SV17ME011	0	0	0	5	7	12	7	5	12	2	2	2	2	2	1.8	1.8	1.8	1.8	1.8	9	3.8	8.8	10.8	10.8	8.8	0.11	0.20	0.32	0.26	0.26
1SV17ME012	4	3	7	5	10	15	10	5	15	2	2	2	2	2	1.8	1.8	1.8	1.8	1.8	9	7.8	11.8	13.8	13.8	8.8	0.23	0.27	0.41	0.26	0.26
1SV17ME013	12	13	25	15	15	30	15	15	30	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	29	19.8	35.8	22.8	22.8	22.8	0.58	0.81	0.67	0.67	0.67
1SV17ME014	11	15	26	7	15	22	15	13	28	2	2	2	2	2	5.4	5.4	5.4	5.4	5.4	27	18.4	29.4	22.4	22.4	20.4	0.54	0.67	0.66	0.60	0.60
1SV17ME015	12	2	14	12	10	22	15	6	21	2	2	2	2	2	5.4	5.4	5.4	5.4	5.4	27	19.4	21.4	17.4	22.4	13.4	0.57	0.49	0.51	0.39	0.39
1SV18ME400	13	11	24	0	0	0	13	14	27	2	2	2	2	2	3.4	3.4	3.4	3.4	3.4	17	18.4	16.4	5.4	18.4	19.4	0.54	0.37	0.16	0.57	0.57
1SV18ME401	15	15	30	7	2	9	15	15	30	2	2	2	2	2	1	1	1	1	1	5	18	25	5	18	18	0.53	0.57	0.15	0.53	0.53
1SV18ME402	11	5	16	14	6	20	15	15	30	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	26	18.2	26.2	13.2	22.2	22.2	0.54	0.60	0.39	0.65	0.65
1SV18ME403	13	6	19	11	2	13	13	13	26	2	2	2	2	2	5	5	5	5	5	25	20	24	9	20	20	0.59	0.55	0.26	0.59	0.59
1SV18ME404	15	14	29	14	8	22	14	13	27	2	2	2	2	2	2.8	2.8	2.8	2.8	2.8	14	19.8	32.8	12.8	18.8	17.8	0.58	0.75	0.38	0.52	0.52
1SV18ME405	15	15	30	14	14	28	15	15	30	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	29	22.8	36.8	21.8	22.8	22.8	0.67	0.84	0.64	0.67	0.67
1SV18ME406	15	13	28	12	7	19	13	14	27	2	2	2	2	2	7	7	7	7	7	35	24	34	16	22	23	0.71	0.77	0.47	0.68	0.68
1SV18ME407	15	6	21	6	6	12	15	15	30	2	2	2	2	2	0.4	0.4	0.4	0.4	0.4	2	17.4	14.4	8.4	17.4	17.4	0.51	0.33	0.25	0.51	0.51
1SV18ME408	14	14	28	7	10	17	10	4	14	2	2	2	2	2	4.8	4.8	4.8	4.8	4.8	24	20.8	27.8	16.8	16.8	10.8	0.61	0.63	0.49	0.32	0.32
TOTAL	232	194	426	239	194	433	307	252	559	46	46	46	46	46	89.8	89.8	89.8	89.8	89.8	449	367.8	568.8	329.8	442.8	387.8	10.82	12.93	9.70	11.41	11.41
NO OF STUDENTS	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
AVERAGE	10.1	8.43	18.5	10.4	8.435	18.83	13.35	11	24.304	2	2	2	2	2	3.90	3.90	3.90	3.90	3.90	19.52	15.99	24.73	14.34	19.25	16.86	47.03	56.21	42.17	49.59	49.59

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SHRIDEVI	**SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY** **SIRA ROAD, TUMKUR- 572 106.**

DEPARTMENT OF ME

SUBJECT	COMPUTER AIDED MACHINE DRAWING	SUBJECT CODE	17ME36A

COURSE OUTCOME

CO1	To read and understand the orthographic and sectional views of various machine components
CO2	To develop 3D models using modeling software's
CO3	To produce 2D drawings by manual drafting and by using drafting packages
CO4	To construct assembly drawings, part drawings and Bill of materials as per BIS Conventions
CO5	To apply limits fits and tolerance to all assemblies and part drawings

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, 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: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

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 the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME	PRASHANTH S											
BRANCH	ME			ACADEMIC YEAR			2018-19					
COURSE	B.E	SEMESTER	III	SECTION								
SUBJECT	COMPUTER AIDED MACHINE DRAWING					SUBJECT CODE	17ME36A					
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2											
CO2	2				2							
CO3	2				2							
CO4	2		2		2							
CO5	2											2
AVERAGE	2		2		2							2
OVERALL MAPPING OF SUBJECT												2.0

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	60.10	1.20											
CO2	70.95	1.49					1.49						
CO3	56.91	1.13					1.13						
CO4	60.10	1.20		1.20			1.20						
CO5	56.91	1.13											1.13
AVERAGE	60.99	1.23		1.20			1.27						1.13
FINAL ATTAINMENT LEVEL													1.20

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Academic year	2018-19			SEM	III		Total strength			23		Subject	Computer Aided Machine Drawin			Subject Code		17ME36A									
SEM:III	IA TEST 1(30M)			IA TEST 2(30M)			IA TEST 3(30M)			ASSIGNEMENT / QUIZ(10 M)					SEE MARKS(60)						Total Cos ATTAINMENT					% of individual CO				
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	TOTAL	CO1=34	CO2=44	CO3=34	CO4=34	CO5=34	CO1	CO2	CO3	CO4	CO5
1SV15ME012	12	12	24	12	12	24	12	12	24	2	2	2	2	2	7.8	7.8	7.8	7.8	7.8	39	21.8	33.8	21.8	21.8	21.8	0.64	0.77	0.64	0.64	0.64
1SV15ME061	12	5	17	12	5	17	12	5	17	2	2	2	2	2	6.2	6.2	6.2	6.2	6.2	31	20.2	25.2	13.2	20.2	13.2	0.59	0.57	0.39	0.59	0.39
1SV15ME088	11	10	21	11	10	21	11	10	21	2	2	2	2	2	6.6	6.6	6.6	6.6	6.6	33	19.6	29.6	18.6	19.6	18.6	0.58	0.67	0.55	0.58	0.55
1SV17ME001	12	10	22	12	10	22	12	10	22	2	2	2	2	2	6.8	6.8	6.8	6.8	6.8	34	20.8	30.8	18.8	20.8	18.8	0.61	0.70	0.55	0.61	0.55
1SV17ME003	13	7	20	13	7	20	13	7	20	2	2	2	2	2	6.4	6.4	6.4	6.4	6.4	32	21.4	28.4	15.4	21.4	15.4	0.63	0.65	0.45	0.63	0.45
1SV17ME004	13	5	18	13	5	18	13	5	18	2	2	2	2	2	4.8	4.8	4.8	4.8	4.8	24	19.8	24.8	11.8	19.8	11.8	0.58	0.56	0.35	0.58	0.35
1SV17ME006	11	18	29	11	18	29	11	18	29	2	2	2	2	2	6.6	6.6	6.6	6.6	6.6	33	19.6	37.6	26.6	19.6	26.6	0.58	0.85	0.78	0.58	0.78
1SV17ME007	12	17	29	12	17	29	12	17	29	2	2	2	2	2	8.2	8.2	8.2	8.2	8.2	41	22.2	39.2	27.2	22.2	27.2	0.65	0.89	0.80	0.65	0.80
1SV17ME008	12	11	23	12	11	23	12	11	23	2	2	2	2	2	6.6	6.6	6.6	6.6	6.6	33	20.6	31.6	19.6	20.6	19.6	0.61	0.72	0.58	0.61	0.58
1SV17ME011	11	12	23	11	12	23	11	12	23	2	2	2	2	2	6.6	6.6	6.6	6.6	6.6	33	19.6	31.6	20.6	19.6	20.6	0.58	0.72	0.61	0.58	0.61
1SV17ME012	11	8	19	11	8	19	11	8	19	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	29	18.8	26.8	15.8	18.8	15.8	0.55	0.61	0.46	0.55	0.46
1SV17ME013	13	14	27	13	14	27	13	14	27	2	2	2	2	2	7.8	7.8	7.8	7.8	7.8	39	22.8	36.8	23.8	22.8	23.8	0.67	0.84	0.70	0.67	0.70
1SV17ME014	11	15	26	11	15	26	11	15	26	2	2	2	2	2	5.4	5.4	5.4	5.4	5.4	27	18.4	33.4	22.4	18.4	22.4	0.54	0.76	0.66	0.54	0.66
1SV17ME015	13	11	24	13	11	24	13	11	24	2	2	2	2	2	7.6	7.6	7.6	7.6	7.6	38	22.6	33.6	20.6	22.6	20.6	0.66	0.76	0.61	0.66	0.61
1SV18ME400	11	10	21	11	10	21	11	10	21	2	2	2	2	2	5.6	5.6	5.6	5.6	5.6	28	18.6	28.6	17.6	18.6	17.6	0.55	0.65	0.52	0.55	0.52
1SV18ME401	12	3	15	12	3	15	12	3	15	2	2	2	2	2	6.2	6.2	6.2	6.2	6.2	31	20.2	23.2	11.2	20.2	11.2	0.59	0.53	0.33	0.59	0.33
1SV18ME402	11	14	25	11	14	25	11	14	25	2	2	2	2	2	8	8	8	8	8	40	21	35	24	21	24	0.62	0.80	0.71	0.62	0.71
1SV18ME403	13	7	20	13	7	20	13	7	20	2	2	2	2	2	6	6	6	6	6	30	21	28	15	21	15	0.62	0.64	0.44	0.62	0.44
1SV18ME404	11	13	24	11	13	24	11	13	24	2	2	2	2	2	8.2	8.2	8.2	8.2	8.2	41	21.2	34.2	23.2	21.2	23.2	0.62	0.78	0.68	0.62	0.68
1SV18ME405	13	14	27	13	14	27	13	14	27	2	2	2	2	2	7.2	7.2	7.2	7.2	7.2	36	22.2	36.2	23.2	22.2	23.2	0.65	0.82	0.68	0.65	0.68
1SV18ME406	11	12	23	11	12	23	11	12	23	2	2	2	2	2	5	5	5	5	5	25	18	30	19	18	19	0.53	0.68	0.56	0.53	0.56
1SV18ME407	11	10	21	11	10	21	11	10	21	2	2	2	2	2	6.6	6.6	6.6	6.6	6.6	33	19.6	29.6	18.6	19.6	18.6	0.58	0.67	0.55	0.58	0.55
1SV18ME408	13	10	23	13	10	23	13	10	23	2	2	2	2	2	5	5	5	5	5	25	20	30	17	20	17	0.59	0.68	0.50	0.59	0.50
TOTAL	273	248	521	273	248	521	273	248	521	46	46	46	46	46	151	151	151	151	151	755	470	718	445	470	445	13.82	16.32	13.09	13.82	13.09
NO OF STUDENTS	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
AVERAGE	11.87	10.78	22.652	11.9	10.78	22.65	11.87	10.8	22.652	2	2	2	2	2	6.57	6.57	6.57	6.57	6.57	32.83	20.43	31.22	19.35	20.43	19.35	60.10	70.95	56.91	60.10	56.91

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SHRIDEVI	**SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY** **SIRA ROAD, TUMKUR- 572 106.**

DEPARTMENT OF ME

SUBJECT	TURBO MACHINES	SUBJECT CODE	15ME53

COURSE OUTCOME

CO1	Model studies and thermodynamics analysis of turbo machines.
CO2	Analyze the energy transfer in Turbo machine with degree of reaction and utilization factor.
CO3	Classify, analyze and understand various type of steam turbine.
CO4	Classify, analyze and understand various type of hydraulic turbine.
CO5	Understand the concept of radial power absorbing machine and the problems involved during its operation.

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, 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: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

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 the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	RAMESH H				
BRANCH	ME	ACADEMIC YEAR	2018-19		
COURSE	B.E	SEMESTER	V	SECTION	
SUBJECT	TURBO MACHINES	SUBJECT CODE	15ME53		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3									
CO2	3	3	3									
CO3	3	3	3									
CO4	3	3	3									
CO5	3	3	3									
AVERAGE	3	3	3									
											OVERALL MAPPING OF SUBJECT	3

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	32.00	0.96	0.96	0.96									
CO2	48.00	1.44	1.44	1.44									
CO3	38.00	1.14	1.14	1.14									
CO4	12.00	0.36	0.36	0.36									
CO5	15.00	0.45	0.45	0.45									
AVERAGE	29.00	0.87	0.87	0.87									
												FINAL ATTAINMENT LEVEL	0.87

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Academic year	2018-19			SEM	V		Total strength			25		Subject		Turbo Machines			Subject Code		15ME53										
SEM:V	IA TEST 1(20M)			IA TEST 2(20M)			IA TEST 3(20M)			ASSIGNEMENT / QUIZ(5 M)					SEE MARKS(60)						Total Cos ATTAINMENT					% of individual CO				
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	TOTAL	CO1=34	CO2=44	CO3=34	CO4=34	CO5=34	CO1	CO2	CO3	CO4	CO5
ISV14ME006	14	9	23	12	9	21	0	0	0	1	1	1	1	1	0	0	0	0	0	0	15	22	10	1	1	0.44	0.50	0.29	0.03	0.03
ISV14ME028	13	10	23	13	13	26	0	0	0	1	1	1	1	1	0	0	0	0	0	0	14	24	14	1	1	0.41	0.55	0.41	0.03	0.03
ISV14ME030	5	3	8	14	13	27	0	0	0	1	1	1	1	1	0	0	0	0	0	0	6	18	14	1	1	0.18	0.41	0.41	0.03	0.03
ISV14ME038	0	0	0	15	13	28	13	12	25	1	1	1	1	1	0	0	0	0	0	0	1	16	14	14	13	0.03	0.36	0.41	0.41	0.38
ISV14ME047	0	0	0	13	15	28	10	14	24	1	1	1	1	1	0	0	0	0	0	0	1	14	16	11	15	0.03	0.32	0.47	0.32	0.44
ISV14ME069	10	8	18	15	15	30	9	14	23	1	1	1	1	1	0	0	0	0	0	0	11	24	16	10	15	0.32	0.55	0.47	0.29	0.44
ISV14ME073	0	0	0	14	12	26	9	13	22	1	1	1	1	1	0	0	0	0	0	0	1	15	13	10	14	0.03	0.34	0.38	0.29	0.41
ISV14ME088	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	0.03	0.02	0.03	0.03	0.03
ISV15ME006	15	13	28	15	4	19	0	0	0	1	1	1	1	1	0	0	0	0	0	0	16	29	5	1	1	0.47	0.66	0.15	0.03	0.03
ISV15ME009	11	9	20	12	12	24	0	0	0	1	1	1	1	1	0	0	0	0	0	0	12	22	13	1	1	0.35	0.50	0.38	0.03	0.03
ISV15ME013	15	9	24	13	14	27	0	0	0	1	1	1	1	1	0	0	0	0	0	0	16	23	15	1	1	0.47	0.52	0.44	0.03	0.03
ISV15ME014	13	11	24	13	14	27	0	0	0	1	1	1	1	1	0	0	0	0	0	0	14	25	15	1	1	0.41	0.57	0.44	0.03	0.03
ISV15ME015	9	3	12	0	0	0	15	14	29	1	1	1	1	1	0	0	0	0	0	0	10	4	1	16	15	0.29	0.09	0.03	0.47	0.44
ISV15ME022	15	11	26	15	12	27	0	0	0	1	1	1	1	1	0	0	0	0	0	0	16	27	13	1	1	0.47	0.61	0.38	0.03	0.03
ISV15ME026	0	0	0	14	9	23	10	10	20	1	1	1	1	1	0	0	0	0	0	0	1	15	10	11	11	0.03	0.34	0.29	0.32	0.32
ISV15ME037	13	14	27	14	15	29	0	0	0	1	1	1	1	1	0	0	0	0	0	0	14	29	16	1	1	0.41	0.66	0.47	0.03	0.03
ISV15ME038	11	7	18	15	13	28	5	0	5	1	1	1	1	1	0	0	0	0	0	0	12	23	14	6	1	0.35	0.52	0.41	0.18	0.03
ISV15ME052	13	5	18	14	14	28	0	0	0	1	1	1	1	1	0	0	0	0	0	0	14	20	15	1	1	0.41	0.45	0.44	0.03	0.03
ISV15ME060	13	5	18	14	14	28	0	0	0	1	1	1	1	1	0	0	0	0	0	0	14	20	15	1	1	0.41	0.45	0.44	0.03	0.03
ISV15ME063	13	13	26	14	12	26	0	0	0	1	1	1	1	1	0	0	0	0	0	0	14	28	13	1	1	0.41	0.64	0.38	0.03	0.03
ISV15ME081	15	12	27	13	15	28	0	9	9	1	1	1	1	1	0	0	0	0	0	0	16	26	16	1	10	0.47	0.59	0.47	0.03	0.29
ISV15ME086	15	13	28	13	15	28	0	0	0	1	1	1	1	1	0	0	0	0	0	0	16	27	16	1	1	0.47	0.61	0.47	0.03	0.03
ISV16ME406	14	6	20	13	15	28	6	14	20	1	1	1	1	1	0	0	0	0	0	0	15	20	16	7	15	0.44	0.45	0.47	0.21	0.44
ISV16ME411	12	12	24	15	13	28	0	0	0	1	1	1	1	1	0	0	0	0	0	0	13	28	14	1	1	0.38	0.64	0.41	0.03	0.03
ISV16ME415	10	11	21	14	14	28	0	0	0	1	1	1	1	1	0	0	0	0	0	0	11	26	15	1	1	0.32	0.59	0.44	0.03	0.03
TOTAL	249	184	433	317	295	612	77	100	177	25	25	25	25	25	0	0	0	0	0	0	274	526	320	102	125	8.06	11.95	9.41	3.00	3.68
No of Students	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	0.74	0.57	0.74	0.74	0.74
Average	9.96	7.36	17.32	12.7	11.8	24.48	3.08	4	7.08	1	1	1	1	1	0	0	0	0	0	0	10.96	21.04	12.8	4.08	5	0.32	0.48	0.38	0.12	0.15

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SHRIDEVI	**SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY** **SIRA ROAD, TUMKUR- 572 106.**

DEPARTMENT OF ME

SUBJECT	DESIGN OF MACHINE ELEMENT-I	SUBJECT CODE	15ME54

COURSE OUTCOME

CO1	Apply the concepts of stresses for 1-d, 2-D and 3-D elements
CO2	Formulate; analyze stresses and strains in machine elements, permanent and temporary joints subjected to various loads.
CO3	Analyze and design for static, fatigue and impact strength, permanent and temporary joints
CO4	Evaluate the stresses in the elements such as Gears, cotter and knuckle joint keys and couplings
CO5	

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, 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: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

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 the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	B H Vasudevamurthy				
BRANCH	ME	ACADEMIC YEAR	2018-19		
COURSE	B.E	SEMESTER	V	SECTION	
SUBJECT	DESIGN OF MACHINE ELEMENT-I	SUBJECT CODE	15ME54		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3										
CO2	3	3										
CO3	3	2	3			1						
CO4	3	3										
CO5	2	2	2			1						
AVERAGE	2.8	2.6	2.5			1						
OVERALL MAPPING OF SUBJECT												2.22

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	19.00	0.57	0.57										
CO2	20.00	0.6	0.6										
CO3	15.00	0.45	0.3	0.45			0.15						
CO4	41.00	1.23	1.23										
CO5	44.00	0.88	0.88	0.88			0.44						
AVERAGE	27.8	0.74	0.71	0.66			0.29						
FINAL ATTAINMENT LEVEL													0.6

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Academic year	2018-19			SEM	V		Total strength			25		Subject	Design of Machine Elements - I			Subject Code	15ME54												
SEM:V	IA TEST 1(30M)			IA TEST 2(30M)			IA TEST 3(30M)			SSIGNEMENT / QUIZ(10 M					SEE MARKS(60)					Total Cos ATTAINMENT					% of individual CO				
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	CO1=29	CO2=44	CO3=29	CO4=29	CO5=29	CO1	CO2	CO3	CO4	CO5
1SV14ME006	4	0	4	6	0	6	12	15	27	2	2	2	2	2	0	0	0	0	0	6	8	2	14	17	0.21	0.18	0.07	0.48	0.59
1SV14ME028	0	0	0	6	0	6	15	15	30	2	2	2	2	2	0	0	0	0	0	2	8	2	17	17	0.07	0.18	0.07	0.59	0.59
1SV14ME030	3	3	6	8	12	20	0	7	7	2	2	2	2	2	0	0	0	0	0	5	13	14	2	9	0.17	0.30	0.48	0.07	0.31
1SV14ME038	0	0	0	5	1	6	13	15	28	2	2	2	2	2	0	0	0	0	0	2	7	3	15	17	0.07	0.16	0.10	0.52	0.59
1SV14ME047	0	0	0	6	0	6	12	15	27	2	2	2	2	2	0	0	0	0	0	2	8	2	14	17	0.07	0.18	0.07	0.48	0.59
1SV14ME069	0	0	0	0	0	0	0	0	0	2	2	2	2	2	0	0	0	0	0	2	2	2	2	2	0.07	0.05	0.07	0.07	0.07
1SV14ME073	0	0	0	0	0	0	0	0	0	2	2	2	2	2	0	0	0	0	0	2	2	2	2	2	0.07	0.05	0.07	0.07	0.07
1SV14ME088	0	0	0	0	0	0	0	0	0	2	2	2	2	2	0	0	0	0	0	2	2	2	2	2	0.07	0.05	0.07	0.07	0.07
1SV15ME006	14	5	19	6	8	14	15	15	30	2	2	2	2	2	0	0	0	0	0	16	13	10	17	17	0.55	0.30	0.34	0.59	0.59
1SV15ME009	0	0	0	0	0	0	0	0	0	2	2	2	2	2	0	0	0	0	0	2	2	2	2	2	0.07	0.05	0.07	0.07	0.07
1SV15ME013	0	2	2	6	0	6	15	12	27	2	2	2	2	2	0	0	0	0	0	2	10	2	17	14	0.07	0.23	0.07	0.59	0.48
1SV15ME014	3	0	3	4	2	6	15	12	27	2	2	2	2	2	0	0	0	0	0	5	6	4	17	14	0.17	0.14	0.14	0.59	0.48
1SV15ME015	4	1	5	5	7	12	12	15	27	2	2	2	2	2	0	0	0	0	0	6	8	9	14	17	0.21	0.18	0.31	0.48	0.59
1SV15ME022	3	1	4	4	4	8	12	15	27	2	2	2	2	2	0	0	0	0	0	5	7	6	14	17	0.17	0.16	0.21	0.48	0.59
1SV15ME026	0	0	0	1	3	4	12	15	27	2	2	2	2	2	0	0	0	0	0	2	3	5	14	17	0.07	0.07	0.17	0.48	0.59
1SV15ME037	10	14	24	14	12	26	0	0	0	2	2	2	2	2	0	0	0	0	0	12	30	14	2	2	0.41	0.68	0.48	0.07	0.07
1SV15ME038	5	3	8	0	0	0	12	5	17	2	2	2	2	2	0	0	0	0	0	7	5	2	14	7	0.24	0.11	0.07	0.48	0.24
1SV15ME052	1	1	2	4	0	4	12	12	24	2	2	2	2	2	0	0	0	0	0	3	7	2	14	14	0.10	0.16	0.07	0.48	0.48
1SV15ME060	8	1	9	12	0	12	12	12	24	2	2	2	2	2	0	0	0	0	0	10	15	2	14	14	0.34	0.34	0.07	0.48	0.48
1SV15ME063	8	3	11	6	0	6	12	15	27	2	2	2	2	2	0	0	0	0	0	10	11	2	14	17	0.34	0.25	0.07	0.48	0.59
1SV15ME081	2	2	4	6	0	6	10	15	25	2	2	2	2	2	0	0	0	0	0	4	10	2	12	17	0.14	0.23	0.07	0.41	0.59
1SV15ME086	1	1	2	6	0	6	10	15	25	2	2	2	2	2	0	0	0	0	0	3	9	2	12	17	0.10	0.20	0.07	0.41	0.59
1SV16ME406	6	4	10	6	4	10	15	15	30	2	2	2	2	2	0	0	0	0	0	8	12	6	17	17	0.28	0.27	0.21	0.59	0.59
1SV16ME411	6	2	8	8	0	8	15	15	30	2	2	2	2	2	0	0	0	0	0	8	12	2	17	17	0.28	0.27	0.07	0.59	0.59
1SV16ME415	9	1	10	5	5	10	15	15	30	2	2	2	2	2	0	0	0	0	0	11	8	7	17	17	0.38	0.18	0.24	0.59	0.59
TOTAL	87	44	131	124	58	182	246	270	516	50	50	50	50	50	0	0	0	0	0	137	218	108	296	320	4.72	4.95	3.72	10.21	11.03
No of Students	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Average	3.48	1.76	5.24	4.96	2.32	7.28	9.84	10.8	20.64	2	2	2	2	2	0	0	0	0	0	5.48	8.72	4.32	11.84	12.8	0.19	0.20	0.15	0.41	0.44

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SHRIDEVI	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY SIRA ROAD, TUMKUR- 572 106.

DEPARTMENT OF ME

SUBJECT	ENERGY ENGINEERING	SUBJECT CODE	15ME71

COURSE OUTCOME

CO1	Summarize the basic concepts of thermal energy systems
CO2	Identify renewable energy sources and their utilization
CO3	Understand the basic concepts of solar radiation and analyze the working of solar PV and thermal systems.
CO4	Understand principles of energy conversion from alternate sources including wind, geothermal, ocean, biomass, and biogas.
CO5	Understand the concepts and applications of fuel cells, thermoelectric convertor and MHD generator.Identify methods of energy storage for specific applications.

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, 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: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

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 the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	RAVI KUMAR D S				
BRANCH	ME	ACADEMIC YEAR	2018-19		
COURSE	B.E	SEMESTER	VII	SECTION	
SUBJECT	ENERGY ENGINEERING	SUBJECT CODE	15ME71		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3											
CO2	3						2					
CO3	3						2					
CO4	3						1					
CO5	3						2					
AVERAGE	3						1.75					
											OVERALL MAPPING OF SUBJECT	2.37

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	47.93	1.43											
CO2	53.84	1.61					1.07						
CO3	53.13	1.59					1.06						
CO4	47.89	1.43					0.47						
CO5	53.13	1.59					1.06						
AVERAGE	51.19	1.53					0.91						
												FINAL ATTAINMENT LEVEL	1.22

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Academic year	2018-19			SEM	VII		Total strength		64		Subject	ENERGY ENGINEERING					Subject Code	15ME71									
SEM:VII	IA TEST 1(30M)			IA TEST 2(30M)			IA TEST 3(30M)			ASSIGNEMENT / QUIZ(10 M)					SEE MARKS(60)						Total Cos ATTAINMENT					% of individual CO				
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	TOTAL	CO1=34	CO2=44	CO3=34	CO4=34	CO5=34	CO1	CO2	CO3	CO4	CO5
1SV14ME011	6	5	11	6	5	11	6	5	11	1	1	1	1	1	9.4	9.4	9.4	9.4	9.4	47	16.4	21.4	15.4	16.4	15.4	0.48	0.49	0.45	0.48	0.45
1SV14ME016	7	4	11	7	4	11	7	4	11	1	1	1	1	1	8	8	8	8	8	40	16	20	13	16	13	0.47	0.45	0.38	0.47	0.38
1SV14ME018	5	8	13	5	8	13	5	8	13	1	1	1	1	1	10.4	10.4	10.4	10.4	10.4	52	16.4	24.4	19.4	16.4	19.4	0.48	0.55	0.57	0.48	0.57
1SV14ME026	6	7	13	6	7	13	6	7	13	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	15.2	22.2	16.2	15.2	16.2	0.45	0.50	0.48	0.45	0.48
1SV14ME034	6	3	9	6	3	9	6	3	9	1	1	1	1	1	6.8	6.8	6.8	6.8	6.8	34	13.8	16.8	10.8	13.8	10.8	0.41	0.38	0.32	0.41	0.32
1SV14ME055	7	6	13	7	6	13	7	6	13	1	1	1	1	1	7.8	7.2	7.2	7.2	7.2	39	15.8	21.2	14.2	15.2	14.2	0.46	0.48	0.42	0.45	0.42
1SV14ME064	7	7	14	7	7	14	7	7	14	1	1	1	1	1	11.4	11.4	11.4	11.4	11.4	57	19.4	26.4	19.4	19.4	19.4	0.57	0.60	0.57	0.57	0.57
1SV14ME083	7	7	14	7	7	14	7	7	14	1	1	1	1	1	12	12	12	12	12	60	20	27	20	20	20	0.59	0.61	0.59	0.59	0.59
1SV14ME084	5	6	11	5	6	11	5	6	11	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	14.2	20.2	15.2	14.2	15.2	0.42	0.46	0.45	0.42	0.45
1SV15ME001	7	6	13	7	6	13	7	6	13	1	1	1	1	1	11	11	11	11	11	55	19	25	18	19	18	0.56	0.57	0.53	0.56	0.53
1SV15ME003	4	11	15	4	11	15	4	11	15	1	1	1	1	1	10	10	10	10	10	50	15	26	22	15	22	0.44	0.59	0.65	0.44	0.65
1SV15ME007	7	7	14	7	7	14	7	7	14	1	1	1	1	1	12.6	12.6	12.6	12.6	12.6	63	20.6	27.6	20.6	20.6	20.6	0.61	0.63	0.61	0.61	0.61
1SV15ME008	6	8	14	6	8	14	6	8	14	1	1	1	1	1	10	10	10	10	10	50	17	25	19	17	19	0.50	0.57	0.56	0.50	0.56
1SV15ME010	4	9	13	4	9	13	4	9	13	1	1	1	1	1	9.6	9.6	9.6	9.6	9.6	48	14.6	23.6	19.6	14.6	19.6	0.43	0.54	0.58	0.43	0.58
1SV15ME017	6	7	13	6	7	13	6	7	13	1	1	1	1	1	10.4	10.4	10.4	10.4	10.4	52	17.4	24.4	18.4	17.4	18.4	0.51	0.55	0.54	0.51	0.54
1SV15ME018	7	6	13	7	6	13	7	6	13	1	1	1	1	1	10.4	10.4	10.4	10.4	10.4	52	18.4	24.4	17.4	18.4	17.4	0.54	0.55	0.51	0.54	0.51
1SV15ME019	4	6	10	4	6	10	4	6	10	1	1	1	1	1	8	8	8	8	8	40	13	19	15	13	15	0.38	0.43	0.44	0.38	0.44
1SV15ME023	7	8	15	7	8	15	7	8	15	1	1	1	1	1	10.8	10.8	10.8	10.8	10.8	54	18.8	26.8	19.8	18.8	19.8	0.55	0.61	0.58	0.55	0.58
1SV15ME025	4	11	15	4	11	15	4	11	15	1	1	1	1	1	11.4	11.4	11.4	11.4	11.4	57	16.4	27.4	23.4	16.4	23.4	0.48	0.62	0.69	0.48	0.69
1SV15ME027	7	5	12	7	5	12	7	5	12	1	1	1	1	1	10	10	10	10	10	50	18	23	16	18	16	0.53	0.52	0.47	0.53	0.47
1SV15ME028	3	9	12	3	9	12	3	9	12	1	1	1	1	1	7.4	7.4	7.4	7.4	7.4	37	11.4	20.4	17.4	11.4	17.4	0.34	0.46	0.51	0.34	0.51
1SV15ME032	7	5	12	7	5	12	7	5	12	1	1	1	1	1	9	9	9	9	9	45	17	22	15	17	15	0.50	0.50	0.44	0.50	0.44
1SV15ME034	4	8	12	4	8	12	4	8	12	1	1	1	1	1	9.2	9.2	9.2	9.2	9.2	46	14.2	22.2	18.2	14.2	18.2	0.42	0.50	0.54	0.42	0.54
1SV15ME039	7	6	13	7	6	13	7	6	13	1	1	1	1	1	11.6	11.6	11.6	11.6	11.6	58	19.6	25.6	18.6	19.6	18.6	0.58	0.58	0.55	0.58	0.55
1SV15ME042	4	8	12	4	8	12	4	8	12	1	1	1	1	1	10.2	10.2	10.2	10.2	10.2	51	15.2	23.2	19.2	15.2	19.2	0.45	0.53	0.56	0.45	0.56
1SV15ME044	6	7	13	6	7	13	6	7	13	1	1	1	1	1	7.8	7.5	7.5	7.5	7.5	39	14.8	21.5	15.5	14.5	15.5	0.44	0.49	0.46	0.43	0.46
1SV15ME045	3	10	13	3	10	13	3	10	13	1	1	1	1	1	10.6	10.6	10.6	10.6	10.6	53	14.6	24.6	21.6	14.6	21.6	0.43	0.56	0.64	0.43	0.64
1SV15ME048	6	9	15	6	9	15	6	9	15	1	1	1	1	1	10.2	10.2	10.2	10.2	10.2	51	17.2	26.2	20.2	17.2	20.2	0.51	0.60	0.59	0.51	0.59
1SV15ME049	3	10	13	3	10	13	3	10	13	1	1	1	1	1	7.6	7.6	7.6	7.6	7.6	38	11.6	21.6	18.6	11.6	18.6	0.34	0.49	0.55	0.34	0.55
1SV15ME051	5	8	13	5	8	13	5	8	13	1	1	1	1	1	9.2	9.2	9.2	9.2	9.2	46	15.2	23.2	18.2	15.2	18.2	0.45	0.53	0.54	0.45	0.54
1SV15ME056	7	4	11	7	4	11	7	4	11	1	1	1	1	1	8.4	8.4	8.4	8.4	8.4	42	16.4	20.4	13.4	16.4	13.4	0.48	0.46	0.39	0.48	0.39
1SV15ME058	5	8	13	5	8	13	5	8	13	1	1	1	1	1	8.6	8.6	8.6	8.6	8.6	43	14.6	22.6	17.6	14.6	17.6	0.43	0.51	0.52	0.43	0.52
1SV15ME059	7	3	10	7	3	10	7	3	10	1	1	1	1	1	7.8	7.8	7.8	7.8	7.8	39	15.8	18.8	11.8	15.8	11.8	0.46	0.43	0.35	0.46	0.35
1SV15ME062	5	10	15	5	10	15	5	10	15	1	1	1	1	1	12	12	12	12	12	60	18	28	23	18	23	0.53	0.64	0.68	0.53	0.68
1SV15ME066	7	7	14	7	7	14	7	7	14	1	1	1	1	1	11	11	11	11	11	55	19	26	19	19	19	0.56	0.59	0.56	0.56	0.56
1SV15ME067	5	4	9	5	4	9	5	4	9	1	1	1	1	1	8.4	8.4	8.4	8.4	8.4	42	14.4	18.4	13.4	14.4	13.4	0.42	0.42	0.39	0.42	0.39
1SV15ME070	8	6	14	8	6	14	8	6	14	1	1	1	1	1	11	11	11	11	11	55	20	26	18	20	18	0.59	0.59	0.53	0.59	0.53
1SV15ME072	6	8	14	6	8	14	6	8	14	1	1	1	1	1	7.8	7.8	7.8	7.8	7.8	39	14.8	22.8	16.8	14.8	16.8	0.44	0.52	0.49	0.44	0.49
1SV15ME073	5	10	15	5	10	15	5	10	15	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	14.2	24.2	19.2	14.2	19.2	0.42	0.55	0.56	0.42	0.56
1SV15ME074	8	6	14	8	6	14	8	6	14	1	1	1	1	1	11.4	11.4	11.4	11.4	11.4	57	20.4	26.4	18.4	20.4	18.4	0.60	0.60	0.54	0.60	0.54
1SV15ME075	7	8	15	7	8	15	7	8	15	1	1	1	1	1	9.8	9.8	9.8	9.8	9.8	49	17.8	25.8	18.8	17.8	18.8	0.52	0.59	0.55	0.52	0.55
1SV15ME076	5	10	15	5	10	15	5	10	15	1	1	1	1	1	12.8	12.8	12.8	12.8	12.8	64	18.8	28.8	23.8	18.8	23.8	0.55	0.65	0.70	0.55	0.70
1SV15ME077	4	8	12	4	8	12	4	8	12	1	1	1	1	1	10.4	10.4	10.4	10.4	10.4	52	15.4	23.4	19.4	15.4	19.4	0.45	0.53	0.57	0.45	0.57
1SV15ME079	7	6	13	7	6	13	7	6	13	1	1	1	1	1	12	12	12	12	12	60	20	26	19	20	19	0.59	0.59	0.56	0.59	0.56
1SV15ME083	5	5	10	5	5	10	5	5	10	1	1	1	1	1	10.2	10.2	10.2	10.2	10.2	51	16.2	21.2	16.2	16.2	16.2	0.48	0.48	0.48	0.48	0.48
1SV16ME400	8	6	14	8	6	14	8	6	14	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	17.2	23.2	15.2	17.2	15.2	0.51	0.53	0.45	0.51	0.45
1SV16ME402	5	8	13	5	8	13	5	8	13	1	1	1	1	1	9.4	9.4	9.4	9.4	9.4	47	15.4	23.4	18.4	15.4	18.4	0.45	0.53	0.54	0.45	0.54
1SV16ME403	5	9	14	5	9	14	5	9	14	1	1	1	1	1	10.6	10.6	10.6	10.6	10.6	53	16.6	25.6	20.6	16.6	20.6	0.49	0.58	0.61	0.49	0.61

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1SV16ME404	4	11	15	4	11	15	4	11	15	1	1	1	1	1	10.6	10.6	10.6	10.6	10.6	53	15.6	26.6	22.6	15.6	22.6	0.46	0.60	0.66	0.46	0.66
1SV16ME405	7	4	11	7	4	11	7	4	11	1	1	1	1	1	8.8	8.8	8.8	8.8	8.8	44	16.8	20.8	13.8	16.8	13.8	0.49	0.47	0.41	0.49	0.41
1SV16ME407	5	9	14	5	9	14	5	9	14	1	1	1	1	1	11.8	11.8	11.8	11.8	11.8	59	17.8	26.8	21.8	17.8	21.8	0.52	0.61	0.64	0.52	0.64
1SV16ME408	7	5	12	7	5	12	7	5	12	1	1	1	1	1	6.6	6.6	6.6	6.6	6.6	33	14.6	19.6	12.6	14.6	12.6	0.43	0.45	0.37	0.43	0.37
1SV16ME409	5	9	14	5	9	14	5	9	14	1	1	1	1	1	11.8	11.8	11.8	11.8	11.8	59	17.8	26.8	21.8	17.8	21.8	0.52	0.61	0.64	0.52	0.64
1SV16ME410	7	6	13	7	6	13	7	6	13	1	1	1	1	1	11	11	11	11	11	55	19	25	18	19	18	0.56	0.57	0.53	0.56	0.53
1SV16ME412	5	8	13	5	8	13	5	8	13	1	1	1	1	1	8.8	8.8	8.8	8.8	8.8	44	14.8	22.8	17.8	14.8	17.8	0.44	0.52	0.52	0.44	0.52
1SV16ME413	4	8	12	4	8	12	4	8	12	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	13.2	21.2	17.2	13.2	17.2	0.39	0.48	0.51	0.39	0.51
1SV16ME416	2	13	15	2	13	15	2	13	15	1	1	1	1	1	10.6	10.6	10.6	10.6	10.6	53	13.6	26.6	24.6	13.6	24.6	0.40	0.60	0.72	0.40	0.72
1SV16ME417	7	7	14	7	7	14	7	7	14	1	1	1	1	1	10.4	10.4	10.4	10.4	10.4	52	18.4	25.4	18.4	18.4	18.4	0.54	0.58	0.54	0.54	0.54
1SV16ME418	4	10	14	4	10	14	4	10	14	1	1	1	1	1	9.4	9.4	9.4	9.4	9.4	47	14.4	24.4	20.4	14.4	20.4	0.42	0.55	0.60	0.42	0.60
1SV16ME419	7	7	14	7	7	14	7	7	14	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	16.2	23.2	16.2	16.2	16.2	0.48	0.53	0.48	0.48	0.48
1SV16ME421	4	10	14	4	10	14	4	10	14	1	1	1	1	1	8.8	8.8	8.8	8.8	8.8	44	13.8	23.8	19.8	13.8	19.8	0.41	0.54	0.58	0.41	0.58
1SV16ME423	5	8	13	5	8	13	5	8	13	1	1	1	1	1	9.4	9.4	9.4	9.4	9.4	47	15.4	23.4	18.4	15.4	18.4	0.45	0.53	0.54	0.45	0.54
1SV16ME424	7	6	13	7	6	13	7	6	13	1	1	1	1	1	9.2	9.2	9.2	9.2	9.2	46	17.2	23.2	16.2	17.2	16.2	0.51	0.53	0.48	0.51	0.48
1SV16ME425	4	10	14	4	10	14	4	10	14	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	13.2	23.2	19.2	13.2	19.2	0.39	0.53	0.56	0.39	0.56
TOTAL	360	474	834	360	474	834	360	474	834	64	64	64	64	64	619	618.1	618.1	618.1	618.1	3095	1043	1516.1	1156.1	1042.1	1156.1	30.7	34.5	34.0	30.7	34.0
NO OF STUDENTS	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64.00	64.00	64.00	64.00	64.00
AVERAGE	5.625	7.41	13.031	5.63	7.406	13.03	5.625	7.41	13.031	1	1	1	1	1	9.67	9.66	9.66	9.66	9.66	48.36	16.30	23.69	18.06	16.28	18.06	47.93	53.84	53.13	47.89	53.13

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SHRIDEVI	**SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY** **SIRA ROAD, TUMKUR- 572 106.**

DEPARTMENT OF ME

SUBJECT	FLUID POWER SYSTEMS	SUBJECT CODE	15ME72

COURSE OUTCOME

CO1	Understand the basic concepts (principles) of working and maintenance of fluid power system with its potential applications.
CO2	Interpret the construction and working of input and output elements of fluid power systems viz. hydraulic and pneumatic pumps, motors and cylinders.
CO3	Demonstrate the functioning of control valves for obtaining desired output from fluid power systems.
CO4	Formulate (construct) the hydraulic and pneumatic circuits for various outputs
CO5	Integrate fluid power system with electrical and logic elements, controls to maintain the sequence of operations

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, 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: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

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 the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME	CHETHAN K M											
BRANCH	ME			ACADEMIC YEAR			2018-19					
COURSE	B.E	SEMESTER	VII	SECTION								
SUBJECT	FLUID POWER SYSTEMS				SUBJECT CODE		15ME72					
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3											
CO2	2	2										
CO3	2											
CO4	1		2		2							
CO5	2		3		2							1
AVERAGE	2	2	2.5		2							1
											OVERALL MAPPING OF SUBJECT	1.9

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	55.07	1.65											
CO2	55.31	1.10	1.10										
CO3	50.71	1.01											
CO4	55.07	0.55		1.10		1.10							
CO5	50.48	1.0		1.51		1.0							0.50
AVERAGE	53.32	1.06	1.10	1.30		1.05							0.50
												FINAL ATTAINMENT LEVEL	1.00

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Academic year	2018-19			SEM	VII		Total strength		64		Subject	Fluid Power Systems			Subject Code	15ME72										
SEM:VII	IA TEST 1(30M)			IA TEST 2(30M)			IA TEST 3(30M)			ASSIGNEMENT / QUIZ(10 M)					SEE MARKS(60)						Total Cos ATTAINMENT					% of individual CO				
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	TOTAL	CO1=34	CO2=44	CO3=34	CO4=34	CO5=34	CO1	CO2	CO3	CO4	CO5
1SV14ME011	8	5	13	8	5	13	8	5	13	1	1	1	1	1	9	9	9	9	9	45	18	23	15	18	15	0.53	0.52	0.44	0.53	0.44
1SV14ME016	9	7	16	9	7	16	9	7	16	1	1	1	1	1	10	10	10	10	10	50	20	27	18	20	18	0.59	0.61	0.53	0.59	0.53
1SV14ME018	8	3	11	8	3	11	8	3	11	1	1	1	1	1	7.8	7.8	7.8	7.8	7.8	39	16.8	19.8	11.8	16.8	11.8	0.49	0.45	0.35	0.49	0.35
1SV14ME026	8	3	11	8	3	11	8	3	11	1	1	1	1	1	9.6	9.6	9.6	9.6	9.6	48	18.6	21.6	13.6	18.6	13.6	0.55	0.49	0.40	0.55	0.40
1SV14ME034	9	1	10	9	1	10	9	1	10	1	1	1	1	1	8.8	8.8	8.8	8.8	8.8	44	18.8	19.8	10.8	18.8	10.8	0.55	0.45	0.32	0.55	0.32
1SV14ME055	8	2	10	8	2	10	8	2	10	1	1	1	1	1	10.8	10.8	10.8	10.8	10.8	54	19.8	21.8	13.8	19.8	13.8	0.58	0.50	0.41	0.58	0.41
1SV14ME064	7	5	12	7	5	12	7	5	12	1	1	1	1	1	11.4	11.4	11.4	11.4	11.4	57	19.4	24.4	17.4	19.4	17.4	0.57	0.55	0.51	0.57	0.51
1SV14ME083	8	5	13	8	5	13	8	5	13	1	1	1	1	1	8.8	8.8	8.8	8.8	8.8	44	17.8	22.8	14.8	17.8	14.8	0.52	0.52	0.44	0.52	0.44
1SV14ME084	7	4	11	7	4	11	7	4	11	1	1	1	1	1	8.4	8.4	8.4	8.4	8.4	42	16.4	20.4	13.4	16.4	13.4	0.48	0.46	0.39	0.48	0.39
1SV15ME001	8	4	12	8	4	12	8	4	12	1	1	1	1	1	10.4	10.4	10.4	10.4	10.4	52	19.4	23.4	15.4	19.4	15.4	0.57	0.53	0.45	0.57	0.45
1SV15ME003	7	7	14	7	7	14	7	7	14	1	1	1	1	1	12.4	12.4	12.4	12.4	12.4	62	20.4	27.4	20.4	20.4	20.4	0.60	0.62	0.60	0.60	0.60
1SV15ME007	6	8	14	6	8	14	6	8	14	1	1	1	1	1	11.8	11.8	11.8	11.8	11.8	59	18.8	26.8	20.8	18.8	20.8	0.55	0.61	0.61	0.55	0.61
1SV15ME008	9	4	13	9	4	13	9	4	13	1	1	1	1	1	11.8	11.8	11.8	11.8	11.8	59	21.8	25.8	16.8	21.8	16.8	0.64	0.59	0.49	0.64	0.49
1SV15ME010	7	5	12	7	5	12	7	5	12	1	1	1	1	1	10	10	10	10	10	50	18	23	16	18	16	0.53	0.52	0.47	0.53	0.47
1SV15ME017	9	4	13	9	4	13	9	4	13	1	1	1	1	1	11.4	11.4	11.4	11.4	11.4	57	21.4	25.4	16.4	21.4	16.4	0.63	0.58	0.48	0.63	0.48
1SV15ME018	7	6	13	7	6	13	7	6	13	1	1	1	1	1	11.6	11.6	11.6	11.6	11.6	58	19.6	25.6	18.6	19.6	18.6	0.58	0.58	0.55	0.58	0.55
1SV15ME019	6	5	11	6	5	11	6	5	11	1	1	1	1	1	9.6	9.6	9.6	9.6	9.6	48	16.6	21.6	15.6	16.6	15.6	0.49	0.49	0.46	0.49	0.46
1SV15ME023	7	7	14	7	7	14	7	7	14	1	1	1	1	1	11.8	11.8	11.8	11.8	11.8	59	19.8	26.8	19.8	19.8	19.8	0.58	0.61	0.58	0.58	0.58
1SV15ME025	6	8	14	6	8	14	6	8	14	1	1	1	1	1	11.2	11.2	11.2	11.2	11.2	56	18.2	26.2	20.2	18.2	20.2	0.54	0.60	0.59	0.54	0.59
1SV15ME027	9	3	12	9	3	12	9	3	12	1	1	1	1	1	9.8	9.8	9.8	9.8	9.8	49	19.8	22.8	13.8	19.8	13.8	0.58	0.52	0.41	0.58	0.41
1SV15ME028	7	5	12	7	5	12	7	5	12	1	1	1	1	1	12	12	12	12	12	60	20	25	18	20	18	0.59	0.57	0.53	0.59	0.53
1SV15ME032	9	5	14	9	5	14	9	5	14	1	1	1	1	1	11.6	11.6	11.6	11.6	11.6	58	21.6	26.6	17.6	21.6	17.6	0.64	0.60	0.52	0.64	0.52
1SV15ME034	6	5	11	6	5	11	6	5	11	1	1	1	1	1	9.8	9.8	9.8	9.8	9.8	49	16.8	21.8	15.8	16.8	15.8	0.49	0.50	0.46	0.49	0.46
1SV15ME039	7	5	12	7	5	12	7	5	12	1	1	1	1	1	7.8	7.8	7.8	7.8	7.8	39	15.8	20.8	13.8	15.8	13.8	0.46	0.47	0.41	0.46	0.41
1SV15ME042	9	3	12	9	3	12	9	3	12	1	1	1	1	1	10.2	10.2	10.2	10.2	10.2	51	20.2	23.2	14.2	20.2	14.2	0.59	0.53	0.42	0.59	0.42
1SV15ME044	9	3	12	9	3	12	9	3	12	1	1	1	1	1	9	9	9	9	9	45	19	22	13	19	13	0.56	0.50	0.38	0.56	0.38
1SV15ME045	6	6	12	6	6	12	6	6	12	1	1	1	1	1	10.2	10.2	10.2	10.2	10.2	51	17.2	23.2	17.2	17.2	17.2	0.51	0.53	0.51	0.51	0.51
1SV15ME048	7	7	14	7	7	14	7	7	14	1	1	1	1	1	12.8	12.8	12.8	12.8	12.8	64	20.8	27.8	20.8	20.8	20.8	0.61	0.63	0.61	0.61	0.61
1SV15ME049	6	6	12	6	6	12	6	6	12	1	1	1	1	1	9.2	9.2	9.2	9.2	9.2	46	16.2	22.2	16.2	16.2	16.2	0.48	0.50	0.48	0.48	0.48
1SV15ME051	9	4	13	9	4	13	9	4	13	1	1	1	1	1	12	12	12	12	12	60	22	26	17	22	17	0.65	0.59	0.50	0.65	0.50
1SV15ME056	6	5	11	6	5	11	6	5	11	1	1	1	1	1	10	10	10	10	10	50	17	22	16	17	16	0.50	0.50	0.47	0.50	0.47
1SV15ME058	7	6	13	7	6	13	7	6	13	1	1	1	1	1	11	11	11	11	11	55	19	25	18	19	18	0.56	0.57	0.53	0.56	0.53
1SV15ME059	7	4	11	7	4	11	7	4	11	1	1	1	1	1	10.8	10.8	10.8	10.8	10.8	54	18.8	22.8	15.8	18.8	15.8	0.55	0.52	0.46	0.55	0.46
1SV15ME062	6	9	15	6	9	15	6	9	15	1	1	1	1	1	13.2	13.2	13.2	13.2	13.2	66	20.2	29.2	23.2	20.2	23.2	0.59	0.66	0.68	0.59	0.68
1SV15ME066	7	6	13	7	6	13	7	6	13	1	1	1	1	1	12.4	12.4	12.4	12.4	12.4	62	20.4	26.4	19.4	20.4	19.4	0.60	0.60	0.57	0.60	0.57
1SV15ME067	6	4	10	6	4	10	6	4	10	1	1	1	1	1	8	8	8	8	8	40	15	19	13	15	13	0.44	0.43	0.38	0.44	0.38
1SV15ME070	7	5	12	7	5	12	7	5	12	1	1	1	1	1	10	10	10	10	10	50	18	23	16	18	16	0.53	0.52	0.47	0.53	0.47
1SV15ME072	7	8	15	7	8	15	7	8	15	1	1	1	1	1	12.6	12.6	12.6	12.6	12.6	63	20.6	28.6	21.6	20.6	21.6	0.61	0.65	0.64	0.61	0.64
1SV15ME073	9	4	13	9	4	13	9	4	13	1	1	1	1	1	13.6	13.6	13.6	13.6	13.6	68	23.6	27.6	18.6	23.6	18.6	0.69	0.63	0.55	0.69	0.55
1SV15ME074	7	5	12	7	5	12	7	5	12	1	1	1	1	1	7.8	7.8	7.8	7.8	7.8	39	15.8	20.8	13.8	15.8	13.8	0.46	0.47	0.41	0.46	0.41
1SV15ME075	6	5	11	6	5	11	6	5	11	1	1	1	1	1	9.6	9.6	9.6	9.6	9.6	48	16.6	21.6	15.6	16.6	15.6	0.49	0.49	0.46	0.49	0.46
1SV15ME076	7	6	13	7	6	13	7	6	13	1	1	1	1	1	13.2	13.2	13.2	13.2	13.2	66	21.2	27.2	20.2	21.2	20.2	0.62	0.62	0.59	0.62	0.59
1SV15ME077	7	3	10	7	3	10	7	3	10	1	1	1	1	1	10.8	10.8	10.8	10.8	10.8	54	18.8	21.8	14.8	18.8	14.8	0.55	0.50	0.44	0.55	0.44
1SV15ME079	6	7	13	6	7	13	6	7	13	1	1	1	1	1	11	11	11	11	11	55	18	25	19	18	19	0.53	0.57	0.56	0.53	0.56
1SV15ME083	6	4	10	6	4	10	6	4	10	1	1	1	1	1	9.4	9.4	9.4	9.4	9.4	47	16.4	20.4	14.4	16.4	14.4	0.48	0.46	0.42	0.48	0.42
1SV16ME400	8	6	14	8	6	14	8	6	14	1	1	1	1	1	8.8	8.8	8.8	8.8	8.8	44	17.8	23.8	15.8	17.8	15.8	0.52	0.54	0.46	0.52	0.46
1SV16ME402	4	8	12	4	8	12	4	8	12	1	1	1	1	1	12	12	12	12	12	60	17	25	21	17	21	0.50	0.57	0.62	0.50	0.62
1SV16ME403	6	8	14	6	8	14	6	8	14	1	1	1	1	1	11.4	11.4	11.4	11.4	11.4	57	18.4	26.4	20.4	18.4	20.4	0.54	0.60	0.60	0.54	0.60
1SV16ME404	8	6	14	8	6	14	8	6	14	1	1	1	1	1	11.2	11.2	11.2	11.2	11.2	56	20.2	26.2	18.2	20.2	18.2	0.59	0.60	0.54	0.59	0.54

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1SV16ME405	6	8	14	6	8	14	6	8	14	1	1	1	1	1	12	12	12	12	12	60	19	27	21	19	21	0.56	0.61	0.62	0.56	0.62
1SV16ME407	4	11	15	4	11	15	4	11	15	1	1	1	1	1	10	10	10	10	10	50	15	26	22	15	22	0.44	0.59	0.65	0.44	0.65
1SV16ME408	8	5	13	8	5	13	8	5	13	1	1	1	1	1	9.8	9.8	9.8	9.8	9.8	49	18.8	23.8	15.8	18.8	15.8	0.55	0.54	0.46	0.55	0.46
1SV16ME409	6	6	12	6	6	12	6	6	12	1	1	1	1	1	14.6	14.6	14.6	14.6	14.6	73	21.6	27.6	21.6	21.6	21.6	0.64	0.63	0.64	0.64	0.64
1SV16ME410	6	8	14	6	8	14	6	8	14	1	1	1	1	1	10.6	10.6	10.6	10.6	10.6	53	17.6	25.6	19.6	17.6	19.6	0.52	0.58	0.58	0.52	0.58
1SV16ME412	6	8	14	6	8	14	6	8	14	1	1	1	1	1	8.6	8.6	8.6	8.6	8.6	43	15.6	23.6	17.6	15.6	17.6	0.46	0.54	0.52	0.46	0.52
1SV16ME413	8	5	13	8	5	13	8	5	13	1	1	1	1	1	9.4	9.4	9.4	9.4	9.4	47	18.4	23.4	15.4	18.4	15.4	0.54	0.53	0.45	0.54	0.45
1SV16ME416	6	6	12	6	6	12	6	6	12	1	1	1	1	1	12	12	12	12	12	60	19	25	19	19	19	0.56	0.57	0.56	0.56	0.56
1SV16ME417	8	7	15	8	7	15	8	7	15	1	1	1	1	1	10.8	10.8	10.8	10.8	10.8	54	19.8	26.8	18.8	19.8	18.8	0.58	0.61	0.55	0.58	0.55
1SV16ME418	6	8	14	6	8	14	6	8	14	1	1	1	1	1	11.2	11.2	11.2	11.2	11.2	56	18.2	26.2	20.2	18.2	20.2	0.54	0.60	0.59	0.54	0.59
1SV16ME419	4	10	14	4	10	14	4	10	14	1	1	1	1	1	11	11	11	11	11	55	16	26	22	16	22	0.47	0.59	0.65	0.47	0.65
1SV16ME421	8	7	15	8	7	15	8	7	15	1	1	1	1	1	11	11	11	11	11	55	20	27	19	20	19	0.59	0.61	0.56	0.59	0.56
1SV16ME423	9	4	13	9	4	13	9	4	13	1	1	1	1	1	10.6	10.6	10.6	10.6	10.6	53	20.6	24.6	15.6	20.6	15.6	0.61	0.56	0.46	0.61	0.46
1SV16ME424	6	7	13	6	7	13	6	7	13	1	1	1	1	1	11	11	11	11	11	55	18	25	19	18	19	0.53	0.57	0.56	0.53	0.56
1SV16ME425	8	5	13	8	5	13	8		13	1	1	1	1	1	10	10	10	10	10	50	19	24	16	19	11	0.56	0.55	0.47	0.56	0.32
TOTAL	454	359	813	454	359	813	454	354	813	64	64	64	64	64	680.4	680.4	680.4	680.4	680.4	3402	1198.4	1557.4	1103.4	1198.4	1098.4	35.25	35.40	32.45	35.25	32.31
NO OF AVERAGE	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64		64	64	64	64	64	64	64	64	64	64
AVERAGE	7.094	5.61	12.703	7.09	5.609	12.7	7.094	5.53	12.703	1	1	1	1	1	10.631	10.63	10.63	10.63	10.63		18.7	24.3	17.2	18.7	17.2	55.07	55.31	50.71	55.07	50.48

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SHRIDEVI	**SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY** **SIRA ROAD, TUMKUR- 572 106.**

DEPARTMENT OF ME

SUBJECT	CONTROL ENGINEERING	SUBJECT CODE	15ME73

COURSE OUTCOME

CO1	Identify the control system and its types , control actions
CO2	Construct the system governing equations for physical models(Electrical, Thermal, Mechanical, Electro Mechanical
CO3	Analyze the gain of the system using block diagram and signal flow graph
CO4	Evaluate the stability of Control system in complex domain and frequency domain
CO5	Employ state equations to study the Bode's plot

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, 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: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

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 the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	RAMESHA H				
BRANCH	ME	ACADEMIC YEAR	2018-19		
COURSE	B.E	SEMESTER	VII	SECTION	
SUBJECT	CONTROL ENGINEERING	SUBJECT CODE	15ME73		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2											1
CO2	2	2	1									
CO3	2	2										
CO4	2	2	1									1
CO5	1	2	1									1
AVERAGE	1.8	1.6	0.6									1
OVERALL MAPPING OF SUBJECT												1.25

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	43.86	0.87											0.43
CO2	45.95	0.91	0.91	0.45									
CO3	40.81	0.81	0.81										
CO4	43.84	0.87	0.87	0.43									0.43
CO5	40.81	0.40	0.81	0.40									0.40
AVERAGE	43.04	0.77	0.85	0.42									0.42
FINAL ATTAINMENT LEVEL													0.42

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Academic year	2018-19			SEM	VII		Total strength			64		Subject	CONTROL ENGINEERING			Subject Code	15ME73										
SEM:VII	IA TEST 1(30M)			IA TEST 2(30M)			IA TEST 3(30M)			ASSIGNEMENT / QUIZ(10 M)						SEE MARKS(60)						Total Cos ATTAINMENT					% of individual CO				
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	TOTAL	CO1=34	CO2=44	CO3=34	CO4=34	CO5=34	CO1	CO2	CO3	CO4	CO5
1SV14ME011	5	5	10	5	5	10	5	5	10	1	1	1	1	1	6	6	6	6	6	30	12	17	12	12	12	0.35	0.39	0.35	0.35	0.35
1SV14ME016	6	5	11	6	5	11	6	5	11	1	1	1	1	1	4.2	4.2	4.2	4.2	4.2	21	11.2	16.2	10.2	11.2	10.2	0.33	0.37	0.30	0.33	0.30
1SV14ME018	4	9	13	4	9	13	4	9	13	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	10.6	19.6	15.6	10.6	15.6	0.31	0.45	0.46	0.31	0.46
1SV14ME026	6	8	14	6	8	14	6	8	14	1	1	1	1	1	7.2	7.2	7.2	7.2	7.2	36	14.2	22.2	16.2	14.2	16.2	0.42	0.50	0.48	0.42	0.48
1SV14ME034	3	9	12	3	9	12	3	9	12	1	1	1	1	1	6.4	6.4	6.4	6.4	6.4	32	10.4	19.4	16.4	10.4	16.4	0.31	0.44	0.48	0.31	0.48
1SV14ME055	6	8	14	6	8	14	6	8	14	1	1	1	1	1	10	10	10	10	10	50	17	25	19	17	19	0.50	0.57	0.56	0.50	0.56
1SV14ME064	4	9	13	4	9	13	4	9	13	1	1	1	1	1	5.6	5.4	5.4	5.4	5.4	28	10.6	19.4	15.4	10.4	15.4	0.31	0.44	0.45	0.31	0.45
1SV14ME083	3	8	11	3	8	11	3	8	11	1	1	1	1	1	10.2	10	10	10	10	51	14.2	22	19	14	19	0.42	0.50	0.56	0.41	0.56
1SV14ME084	6	6	12	6	6	12	6	6	12	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	12.6	18.6	12.6	12.6	12.6	0.37	0.42	0.37	0.37	0.37
1SV15ME001	4	9	13	4	9	13	4	9	13	1	1	1	1	1	6.2	6.2	6.2	6.2	6.2	31	11.2	20.2	16.2	11.2	16.2	0.33	0.46	0.48	0.33	0.48
1SV15ME003	6	7	13	6	7	13	6	7	13	1	1	1	1	1	12.4	12.4	12.4	12.4	12.4	62	19.4	26.4	20.4	19.4	20.4	0.57	0.60	0.60	0.57	0.60
1SV15ME007	7	7	14	7	7	14	7	7	14	1	1	1	1	1	10	10	10	10	10	50	18	25	18	18	18	0.53	0.57	0.53	0.53	0.53
1SV15ME008	4	8	12	4	8	12	4	8	12	1	1	1	1	1	11	11	11	11	11	55	16	24	20	16	20	0.47	0.55	0.59	0.47	0.59
1SV15ME010	7	4	11	7	4	11	7	4	11	1	1	1	1	1	6	6	6	6	6	30	14	18	11	14	11	0.41	0.41	0.32	0.41	0.32
1SV15ME017	6	6	12	6	6	12	6	6	12	1	1	1	1	1	12	12	12	12	12	60	19	25	19	19	19	0.56	0.57	0.56	0.56	0.56
1SV15ME018	3	9	12	3	9	12	3	9	12	1	1	1	1	1	10.8	10.8	10.8	10.8	10.8	54	14.8	23.8	20.8	14.8	20.8	0.44	0.54	0.61	0.44	0.61
1SV15ME019	7	3	10	7	3	10	7	3	10	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	13.6	16.6	9.6	13.6	9.6	0.40	0.38	0.28	0.40	0.28
1SV15ME023	4	9	13	4	9	13	4	9	13	1	1	1	1	1	10.8	10.8	10.8	10.8	10.8	54	15.8	24.8	20.8	15.8	20.8	0.46	0.56	0.61	0.46	0.61
1SV15ME025	7	7	14	7	7	14	7	7	14	1	1	1	1	1	12.2	12.2	12.2	12.2	12.2	61	20.2	27.2	20.2	20.2	20.2	0.59	0.62	0.59	0.59	0.59
1SV15ME027	7	5	12	7	5	12	7	5	12	1	1	1	1	1	8	8	8	8	8	40	16	21	14	16	14	0.47	0.48	0.41	0.47	0.41
1SV15ME028	3	7	10	3	7	10	3	7	10	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	9.6	16.6	13.6	9.6	13.6	0.28	0.38	0.40	0.28	0.40
1SV15ME032	6	4	10	6	4	10	6	4	10	1	1	1	1	1	7.6	7.6	7.6	7.6	7.6	38	14.6	18.6	12.6	14.6	12.6	0.43	0.42	0.37	0.43	0.37
1SV15ME034	6	4	10	6	4	10	6	4	10	1	1	1	1	1	7	7	7	7	7	35	14	18	12	14	12	0.41	0.41	0.35	0.41	0.35
1SV15ME039	8	3	11	8	3	11	8	3	11	1	1	1	1	1	8.4	8.4	8.4	8.4	8.4	42	17.4	20.4	12.4	17.4	12.4	0.51	0.46	0.36	0.51	0.36
1SV15ME042	6	6	12	6	6	12	6	6	12	1	1	1	1	1	7.6	7.6	7.6	7.6	7.6	38	14.6	20.6	14.6	14.6	14.6	0.43	0.47	0.43	0.43	0.43
1SV15ME044	4	8	12	4	8	12	4	8	12	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	13.2	21.2	17.2	13.2	17.2	0.39	0.48	0.51	0.39	0.51
1SV15ME045	8	4	12	8	4	12	8	4	12	1	1	1	1	1	6	6	6	6	6	30	15	19	11	15	11	0.44	0.43	0.32	0.44	0.32
1SV15ME048	6	5	11	6	5	11	6	5	11	1	1	1	1	1	11.4	11.4	11.4	11.4	11.4	57	18.4	23.4	17.4	18.4	17.4	0.54	0.53	0.51	0.54	0.51
1SV15ME049	8	2	10	8	2	10	8	2	10	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	17.2	19.2	11.2	17.2	11.2	0.51	0.44	0.33	0.51	0.33
1SV15ME051	6	4	10	6	4	10	6	4	10	1	1	1	1	1	8.4	8.4	8.4	8.4	8.4	42	15.4	19.4	13.4	15.4	13.4	0.45	0.44	0.39	0.45	0.39
1SV15ME056	9	4	13	9	4	13	9	4	13	1	1	1	1	1	8	8	8	8	8	40	18	22	13	18	13	0.53	0.50	0.38	0.53	0.38
1SV15ME058	6	5	11	6	5	11	6	5	11	1	1	1	1	1	6.6	6.6	6.6	6.6	6.6	33	13.6	18.6	12.6	13.6	12.6	0.40	0.42	0.37	0.40	0.37
1SV15ME059	8	2	10	8	2	10	8	2	10	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	14.6	16.6	8.6	14.6	8.6	0.43	0.38	0.25	0.43	0.25
1SV15ME062	8	6	14	8	6	14	8	6	14	1	1	1	1	1	9.2	9.2	9.2	9.2	9.2	46	18.2	24.2	16.2	18.2	16.2	0.54	0.55	0.48	0.54	0.48
1SV15ME066	6	5	11	6	5	11	6	5	11	1	1	1	1	1	9.4	9.4	9.4	9.4	9.4	47	16.4	21.4	15.4	16.4	15.4	0.48	0.49	0.45	0.48	0.45
1SV15ME067	6	3	9	6	3	9	6	3	9	1	1	1	1	1	9	9	9	9	9	45	16	19	13	16	13	0.47	0.43	0.38	0.47	0.38
1SV15ME070	8	2	10	8	2	10	8	2	10	1	1	1	1	1	6.4	6.4	6.4	6.4	6.4	32	15.4	17.4	9.4	15.4	9.4	0.45	0.40	0.28	0.45	0.28
1SV15ME072	8	5	13	8	5	13	8	5	13	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	14.6	19.6	11.6	14.6	11.6	0.43	0.45	0.34	0.43	0.34
1SV15ME073	6	7	13	6	7	13	6	7	13	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	12.6	19.6	13.6	12.6	13.6	0.37	0.45	0.40	0.37	0.40
1SV15ME074	8	4	12	8	4	12	8	4	12	1	1	1	1	1	8	8	8	8	8	40	17	21	13	17	13	0.50	0.48	0.38	0.50	0.38
1SV15ME075	8	4	12	8	4	12	8	4	12	1	1	1	1	1	8.4	8.4	8.4	8.4	8.4	42	17.4	21.4	13.4	17.4	13.4	0.51	0.49	0.39	0.51	0.39
1SV15ME076	9	3	12	9	3	12	9	3	12	1	1	1	1	1	4.2	4.2	4.2	4.2	4.2	21	14.2	17.2	8.2	14.2	8.2	0.42	0.39	0.24	0.42	0.24
1SV15ME077	9	1	10	9	1	10	9	1	10	1	1	1	1	1	8.8	8.8	8.8	8.8	8.8	44	18.8	19.8	10.8	18.8	10.8	0.55	0.45	0.32	0.55	0.32
1SV15ME079	8	3	11	8	3	11	8	3	11	1	1	1	1	1	7.8	7.8	7.8	7.8	7.8	39	16.8	19.8	11.8	16.8	11.8	0.49	0.45	0.35	0.49	0.35
1SV15ME083	8	4	12	8	4	12	8	4	12	1	1	1	1	1	6.8	6.8	6.8	6.8	6.8	34	15.8	19.8	11.8	15.8	11.8	0.46	0.45	0.35	0.46	0.35
1SV16ME400	8	2	10	8	2	10	8	2	10	1	1	1	1	1	3.6	3.6	3.6	3.6	3.6	18	12.6	14.6	6.6	12.6	6.6	0.37	0.33	0.19	0.37	0.19
1SV16ME402	9	3	12	9	3	12	9	3	12	1	1	1	1	1	12.4	12.4	12.4	12.4	12.4	62	22.4	25.4	16.4	22.4	16.4	0.66	0.58	0.48	0.66	0.48
1SV16ME403	9	3	12	9	3	12	9	3	12	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	15.6	18.6	9.6	15.6	9.6	0.46	0.42	0.28	0.46	0.28
1SV16ME404	5	6	11	5	6	11	5	6	11	1	1	1	1	1	9.8	9.8	9.8	9.8	9.8	49	15.8	21.8	16.8	15.8	16.8	0.48	0.50	0.49	0.46	0.49
1SV16ME405	4	7	11	4	7	11	4	7	11	1	1	1	1	1	6.4	6.4	6.4	6.4	6.4	32	11.4	18.4	14.4	11.4	14.4	0.34	0.42	0.42	0.34	0.42

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1SV16ME407	8	5	13	8	5	13	8	5	13	1	1	1	1	1	6.8	6.8	6.8	6.8	6.8	34	15.8	20.8	12.8	15.8	12.8	0.46	0.47	0.38	0.46	0.38
1SV16ME408	6	6	12	6	6	12	6	6	12	1	1	1	1	1	7.4	7.4	7.4	7.4	7.4	37	14.4	20.4	14.4	14.4	14.4	0.42	0.46	0.42	0.42	0.42
1SV16ME409	8	3	11	8	3	11	8	3	11	1	1	1	1	1	6.8	6.8	6.8	6.8	6.8	34	15.8	18.8	10.8	15.8	10.8	0.46	0.43	0.32	0.46	0.32
1SV16ME410	4	9	13	4	9	13	4	9	13	1	1	1	1	1	6.8	6.8	6.8	6.8	6.8	34	11.8	20.8	16.8	11.8	16.8	0.35	0.47	0.49	0.35	0.49
1SV16ME412	8	4	12	8	4	12	8	4	12	1	1	1	1	1	8.6	8.6	8.6	8.6	8.6	43	17.6	21.6	13.6	17.6	13.6	0.52	0.49	0.40	0.52	0.40
1SV16ME413	6	5	11	6	5	11	6	5	11	1	1	1	1	1	6.6	6.6	6.6	6.6	6.6	33	13.6	18.6	12.6	13.6	12.6	0.40	0.42	0.37	0.40	0.37
1SV16ME416	4	8	12	4	8	12	4	8	12	1	1	1	1	1	6.2	6.2	6.2	6.2	6.2	31	11.2	19.2	15.2	11.2	15.2	0.33	0.44	0.45	0.33	0.45
1SV16ME417	8	5	13	8	5	13	8	5	13	1	1	1	1	1	7.4	7.4	7.4	7.4	7.4	37	16.4	21.4	13.4	16.4	13.4	0.48	0.49	0.39	0.48	0.39
1SV16ME418	6	5	11	6	5	11	6	5	11	1	1	1	1	1	6.6	6.6	6.6	6.6	6.6	33	13.6	18.6	12.6	13.6	12.6	0.40	0.42	0.37	0.40	0.37
1SV16ME419	4	7	11	4	7	11	4	7	11	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	10.6	17.6	13.6	10.6	13.6	0.31	0.40	0.40	0.31	0.40
1SV16ME421	8	3	11	8	3	11	8	3	11	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	14.6	17.6	9.6	14.6	9.6	0.43	0.40	0.28	0.43	0.28
1SV16ME423	6	5	11	6	5	11	6	5	11	1	1	1	1	1	4.4	4.4	4.4	4.4	4.4	22	11.4	16.4	10.4	11.4	10.4	0.34	0.37	0.31	0.34	0.31
1SV16ME424	6	5	11	6	5	11	6	5	11	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	12.6	17.6	11.6	12.6	11.6	0.37	0.40	0.34	0.37	0.34
1SV16ME425	8	3	11	8	3	11	8	3	11	1	1	1	1	1	8.6	8.6	8.6	8.6	8.6	43	17.6	20.6	12.6	17.6	12.6	0.52	0.47	0.37	0.52	0.37
TOTAL	406	340	746	406	340	746	406	340	746	64	64	64	64	64	484.4	484	484	484	484	2422	954.4	1294	888	954	888	28.07	29.41	26.12	28.06	26.12
NO OF STUDENTS	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64.00	64.00	64.00	64.00	64.00
AVERAGE	6.3	5.3	11.7	6.3	5.3	11.7	6.3	5.3	11.7	1	1	1	1	1	7.57	7.56	7.56	7.56	7.56	37.84	14.91	20.22	13.88	14.91	13.88	43.86	45.95	40.81	43.84	40.81

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SIRA ROAD, TUMKUR- 572 106.

DEPARTMENT OF ME

SUBJECT	TRIBOLOGY	SUBJECT CODE	15ME742

COURSE OUTCOME

CO1	Understand the fundamentals of tribology and associated parameters
CO2	Apply concepts of tribology for the performance analysis and design of components experiencing relative motion
CO3	Analyse the requirements and design hydrodynamic journal and plane slider bearings for a given application
CO4	Select proper bearing materials and lubricants for a given tribological application
CO5	Apply the principles of surface engineering for different applications of tribology

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, 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: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

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 the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME	K P CHANDRAIAH											
BRANCH	ME			ACADEMIC YEAR			2018-19					
COURSE	B.E	SEMESTER	VII	SECTION								
SUBJECT	TRIBOLOGY					SUBJECT CODE	15ME742					
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3											
CO2	3	2										
CO3	3	2	3									
CO4	3	2										
CO5	3	2										
AVERAGE	3	2	3									
OVERALL MAPPING OF SUBJECT												2.0

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	43.49	1.30											
CO2	58.70	1.76	1.17										
CO3	44.83	1.34	0.89	1.34									
CO4	43.49	1.30	0.86										
CO5	44.83	1.34	0.89										
AVERAGE	47.06	1.40	0.95	1.34									
FINAL ATTAINMENT LEVEL													1.23

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Academic year	2018-19			SEM	VII		Total strength			64		Subject			TIBOLOGY						Subject Code	15ME742								
SEM:VII	IA TEST 1(30M)			IA TEST 2(30M)			IA TEST 3(30M)			ASSIGNEMENT / QUIZ(10 M)					SEE MARKS(60)						Total Cos ATTAINMENT					% of individual CO				
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	TOTAL	CO1=34	CO2=44	CO3=34	CO4=34	CO5=34	CO1	CO2	CO3	CO4	CO5
ISV14ME011	8	3	11	8	3	11	8	3	11	1	1	1	1	1	3	3	3	3	3	15	12	15	7	12	7	0.35	0.34	0.21	0.35	0.21
ISV14ME016	9	2	11	9	2	11	9	2	11	1	1	1	1	1	6.6	6.6	6.6	6.6	6.6	33	16.6	18.6	9.6	16.6	9.6	0.49	0.42	0.28	0.49	0.28
ISV14ME018	2	10	12	2	10	12	2	10	12	1	1	1	1	1	4	4	4	4	4	20	7	17	15	7	15	0.21	0.39	0.44	0.21	0.44
ISV14ME026	6	5	11	6	5	11	6	5	11	1	1	1	1	1	5.8	5.8	5.8	5.8	5.8	29	12.8	17.8	11.8	12.8	11.8	0.38	0.40	0.35	0.38	0.35
ISV14ME034	4	7	11	4	7	11	4	7	11	1	1	1	1	1	6	6	6	6	6	30	11	18	14	11	14	0.32	0.41	0.41	0.32	0.41
ISV14ME055	6	4	10	6	4	10	6	4	10	1	1	1	1	1	7.8	7.8	7.8	7.8	7.8	39	14.8	18.8	12.8	14.8	12.8	0.44	0.43	0.38	0.44	0.38
ISV14ME064	9	2	11	9	2	11	9	2	11	1	1	1	1	1	6.6	6.6	6.6	6.6	6.6	33	16.6	18.6	9.6	16.6	9.6	0.49	0.42	0.28	0.49	0.28
ISV14ME083	9	1	10	9	1	10	9	1	10	1	1	1	1	1	4.2	4.2	4.2	4.2	4.2	21	14.2	15.2	6.2	14.2	6.2	0.42	0.35	0.18	0.42	0.18
ISV14ME084	4	7	11	4	7	11	4	7	11	1	1	1	1	1	6.4	6.4	6.4	6.4	6.4	32	11.4	18.4	14.4	11.4	14.4	0.34	0.42	0.42	0.34	0.42
ISV15ME001	8	3	11	8	3	11	8	3	11	1	1	1	1	1	7.4	7.4	7.4	7.4	7.4	37	16.4	19.4	11.4	16.4	11.4	0.48	0.44	0.34	0.48	0.34
ISV15ME003	2	12	14	2	12	14	2	12	14	1	1	1	1	1	9.4	9.4	9.4	9.4	9.4	47	12.4	24.4	22.4	12.4	22.4	0.36	0.55	0.66	0.36	0.66
ISV15ME007	6	9	15	6	9	15	6	9	15	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	15.2	24.2	18.2	15.2	18.2	0.45	0.55	0.54	0.45	0.54
ISV15ME008	3	12	15	3	12	15	3	12	15	1	1	1	1	1	9.6	9.6	9.6	9.6	9.6	48	13.6	25.6	22.6	13.6	22.6	0.40	0.58	0.66	0.40	0.66
ISV15ME010	1	11	12	1	11	12	1	11	12	1	1	1	1	1	7.6	7.6	7.6	7.6	7.6	38	9.6	20.6	19.6	9.6	19.6	0.28	0.47	0.58	0.28	0.58
ISV15ME017	4	7	11	4	7	11	4	7	11	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	10.6	17.6	13.6	10.6	13.6	0.31	0.40	0.40	0.31	0.40
ISV15ME018	7	8	15	7	8	15	7	8	15	1	1	1	1	1	10.6	10.6	10.6	10.6	10.6	53	18.6	26.6	19.6	18.6	19.6	0.55	0.60	0.58	0.55	0.58
ISV15ME019	9	2	11	9	2	11	9	2	11	1	1	1	1	1	8	8	8	8	8	40	18	20	11	18	11	0.53	0.45	0.32	0.53	0.32
ISV15ME023	8	7	15	8	7	15	8	7	15	1	1	1	1	1	7.2	7.2	7.2	7.2	7.2	36	16.2	23.2	15.2	16.2	15.2	0.48	0.53	0.45	0.48	0.45
ISV15ME025	5	10	15	5	10	15	5	10	15	1	1	1	1	1	8.8	8.8	8.8	8.8	8.8	44	14.8	24.8	19.8	14.8	19.8	0.44	0.56	0.58	0.44	0.58
ISV15ME027	6	7	13	6	7	13	6	7	13	1	1	1	1	1	7	7	7	7	7	35	14	21	15	14	15	0.41	0.48	0.44	0.41	0.44
ISV15ME028	4	11	15	4	11	15	4	11	15	1	1	1	1	1	6.4	6.4	6.4	6.4	6.4	32	11.4	22.4	18.4	11.4	18.4	0.34	0.51	0.54	0.34	0.54
ISV15ME032	7	2	9	7	2	9	7	2	9	1	1	1	1	1	9	9	9	9	9	45	17	19	12	17	12	0.50	0.43	0.35	0.50	0.35
ISV15ME034	8	3	11	8	3	11	8	3	11	1	1	1	1	1	8.8	8.8	8.8	8.8	8.8	44	17.8	20.8	12.8	17.8	12.8	0.52	0.47	0.38	0.52	0.38
ISV15ME039	7	8	15	7	8	15	7	8	15	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	16.2	24.2	17.2	16.2	17.2	0.48	0.55	0.51	0.48	0.51
ISV15ME042	8	6	14	8	6	14	8	6	14	1	1	1	1	1	9.2	9.2	9.2	9.2	9.2	46	18.2	24.2	16.2	18.2	16.2	0.54	0.55	0.48	0.54	0.48
ISV15ME044	5	9	14	5	9	14	5	9	14	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	11.6	20.6	15.6	11.6	15.6	0.34	0.47	0.46	0.34	0.46
ISV15ME045	4	7	11	4	7	11	4	7	11	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	13.2	20.2	16.2	13.2	16.2	0.39	0.46	0.48	0.39	0.48
ISV15ME048	8	4	12	8	4	12	8	4	12	1	1	1	1	1	11.2	11.2	11.2	11.2	11.2	56	20.2	24.2	16.2	20.2	16.2	0.59	0.55	0.48	0.59	0.48
ISV15ME049	9	4	13	9	4	13	9	4	13	1	1	1	1	1	8.8	8.8	8.8	8.8	8.8	44	18.8	22.8	13.8	18.8	13.8	0.55	0.52	0.41	0.55	0.41
ISV15ME051	6	7	13	6	7	13	6	7	13	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	15.2	22.2	16.2	15.2	16.2	0.45	0.50	0.48	0.45	0.48
ISV15ME056	5	8	13	5	8	13	5	8	13	1	1	1	1	1	8.4	8.4	8.4	8.4	8.4	42	14.4	22.4	17.4	14.4	17.4	0.42	0.51	0.51	0.42	0.51
ISV15ME058	4	7	11	4	7	11	4	7	11	1	1	1	1	1	7.2	7.2	7.2	7.2	7.2	36	12.2	19.2	15.2	12.2	15.2	0.36	0.44	0.45	0.36	0.45
ISV15ME059	2	9	11	2	9	11	2	9	11	1	1	1	1	1	8.4	8.4	8.4	8.4	8.4	42	11.4	20.4	18.4	11.4	18.4	0.34	0.46	0.54	0.34	0.54
ISV15ME062	5	10	15	5	10	15	5	10	15	1	1	1	1	1	9.4	9.4	9.4	9.4	9.4	47	15.4	25.4	20.4	15.4	20.4	0.45	0.58	0.60	0.45	0.60
ISV15ME066	5	9	14	5	9	14	5	9	14	1	1	1	1	1	10.2	10.2	10.2	10.2	10.2	51	16.2	25.2	20.2	16.2	20.2	0.48	0.57	0.59	0.48	0.59
ISV15ME067	7	1	8	7	1	8	7	1	8	1	1	1	1	1	8.6	8.6	8.6	8.6	8.6	43	16.6	17.6	10.6	16.6	10.6	0.49	0.40	0.31	0.49	0.31
ISV15ME070	8	7	15	8	7	15	8	7	15	1	1	1	1	1	10.2	10.2	10.2	10.2	10.2	51	19.2	26.2	18.2	19.2	18.2	0.56	0.60	0.54	0.56	0.54
ISV15ME072	9	6	15	9	6	15	9	6	15	1	1	1	1	1	8.6	8.6	8.6	8.6	8.6	43	18.6	24.6	15.6	18.6	15.6	0.55	0.56	0.46	0.55	0.46
ISV15ME073	8	7	15	8	7	15	8	7	15	1	1	1	1	1	7.6	7.6	7.6	7.6	7.6	38	16.6	23.6	15.6	16.6	15.6	0.49	0.54	0.46	0.49	0.46
ISV15ME074	8	7	15	8	7	15	8	7	15	1	1	1	1	1	6.2	6.2	6.2	6.2	6.2	31	15.2	22.2	14.2	15.2	14.2	0.45	0.50	0.42	0.45	0.42
ISV15ME075	9	6	15	9	6	15	9	6	15	1	1	1	1	1	7	7	7	7	7	35	17	23	14	17	14	0.50	0.52	0.41	0.50	0.41
ISV15ME076	7	8	15	7	8	15	7	8	15	1	1	1	1	1	9.6	9.6	9.6	9.6	9.6	48	17.6	25.6	18.6	17.6	18.6	0.52	0.58	0.55	0.52	0.55
ISV15ME077	4	6	10	4	6	10	4	6	10	1	1	1	1	1	7.2	7.2	7.2	7.2	7.2	36	12.2	18.2	14.2	12.2	14.2	0.36	0.41	0.42	0.36	0.42
ISV15ME079	6	9	15	6	9	15	6	9	15	1	1	1	1	1	10.2	10.2	10.2	10.2	10.2	51	17.2	26.2	20.2	17.2	20.2	0.51	0.60	0.59	0.51	0.59
ISV15ME083	3	8	11	3	8	11	3	8	11	1	1	1	1	1	8.8	8.8	8.8	8.8	8.8	44	12.8	20.8	17.8	12.8	17.8	0.38	0.47	0.52	0.38	0.52
ISV16ME400	2	12	14	2	12	14	2	12	14	1	1	1	1	1	6.2	6.2	6.2	6.2	6.2	31	9.2	21.2	19.2	9.2	19.2	0.27	0.48	0.56	0.27	0.56
ISV16ME402	5	6	11	5	6	11	5	6	11	1	1	1	1	1	6	6	6	6	6	30	12	18	13	12	13	0.35	0.41	0.38	0.35	0.38
ISV16ME403	8	3	11	8	3	11	8	3	11	1	1	1	1	1	7.8	7.8	7.8	7.8	7.8	39	16.8	19.8	11.8	16.8	11.8	0.49	0.45	0.35	0.49	0.35
ISV16ME404	4	11	15	4	11	15	4	11	15	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	10.6	21.6	17.6	10.6	17.6	0.31	0.49	0.52	0.31	0.52

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1SV16ME405	7	4	11	7	4	11	7	4	11	1	1	1	1	1	7.8	7.8	7.8	7.8	7.8	39	15.8	19.8	12.8	15.8	12.8	0.46	0.45	0.38	0.46	0.38
1SV16ME407	8	6	14	8	6	14	8	6	14	1	1	1	1	1	8.4	8.4	8.4	8.4	8.4	42	17.4	23.4	15.4	17.4	15.4	0.51	0.53	0.45	0.51	0.45
1SV16ME408	9	4	13	9	4	13	9	4	13	1	1	1	1	1	7.4	7.4	7.4	7.4	7.4	37	17.4	21.4	12.4	17.4	12.4	0.51	0.49	0.36	0.51	0.36
1SV16ME409	9	2	11	9	2	11	9	2	11	1	1	1	1	1	8	8	8	8	8	40	18	20	11	18	11	0.53	0.45	0.32	0.53	0.32
1SV16ME410	7	5	12	7	5	12	7	5	12	1	1	1	1	1	6	6	6	6	6	30	14	19	12	14	12	0.41	0.43	0.35	0.41	0.35
1SV16ME412	8	2	10	8	2	10	8	2	10	1	1	1	1	1	9	9	9	9	9	45	18	20	12	18	12	0.53	0.45	0.35	0.53	0.35
1SV16ME413	9	5	14	9	5	14	9	5	14	1	1	1	1	1	8.6	8.6	8.6	8.6	8.6	43	18.6	23.6	14.6	18.6	14.6	0.55	0.54	0.43	0.55	0.43
1SV16ME416	6	7	13	6	7	13	6	7	13	1	1	1	1	1	9.2	9.2	9.2	9.2	9.2	46	16.2	23.2	17.2	16.2	17.2	0.48	0.53	0.51	0.48	0.51
1SV16ME417	5	8	13	5	8	13	5	8	13	1	1	1	1	1	2.8	2.8	2.8	2.8	2.8	14	8.8	16.8	11.8	8.8	11.8	0.26	0.38	0.35	0.26	0.35
1SV16ME418	4	10	14	4	10	14	4	10	14	1	1	1	1	1	7.8	7.8	7.8	7.8	7.8	39	12.8	22.8	18.8	12.8	18.8	0.38	0.52	0.55	0.38	0.55
1SV16ME419	5	10	15	5	10	15	5	10	15	1	1	1	1	1	7.6	7.6	7.6	7.6	7.6	38	13.6	23.6	18.6	13.6	18.6	0.40	0.54	0.55	0.40	0.55
1SV16ME421	6	9	15	6	9	15	6	9	15	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	12.6	21.6	15.6	12.6	15.6	0.37	0.49	0.46	0.37	0.46
1SV16ME423	9	6	15	9	6	15	9	6	15	1	1	1	1	1	6.4	6.4	6.4	6.4	6.4	32	16.4	22.4	13.4	16.4	13.4	0.48	0.51	0.39	0.48	0.39
1SV16ME424	8	7	15	8	7	15	8	7	15	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	14.6	21.6	13.6	14.6	13.6	0.43	0.49	0.40	0.43	0.40
1SV16ME425	5	10	15	5	10	15	5	10	15	1	1	1	1	1	9.6	9.6	9.6	9.6	9.6	48	15.6	25.6	20.6	15.6	20.6	0.46	0.58	0.61	0.46	0.61
TOTAL	396	425	821	396	425	821	396	425	821	64	64	64	64	64	486.4	486.4	486.4	486.4	486.4	2432	946.4	1371.4	975.4	946.4	975.4	27.84	31.17	28.69	27.84	28.69
NO OF STUDENTS	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
AVERAGE	6.188	6.64	12.828	6.19	6.641	12.83	6.188	6.64	12.83	1	1	1	1	1	7.6	7.6	7.6	7.6	7.6	38	14.79	21.43	15.24	14.79	15.24	43.49	48.70	44.83	43.49	44.83

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SHRIDEVI	**SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY** **SIRA ROAD, TUMKUR- 572 106.**

DEPARTMENT OF ME

SUBJECT	MECHATRONICS	SUBJECT CODE	15ME754

COURSE OUTCOME

CO1	Illustrate various components of Mechatronics systems.
CO2	Assess various control systems used in automation
CO3	Design and conduct experiments to evaluate the performance of a mechatronics system or component with respect to specifications, as well as to analyse and interpret data.
CO4	Apply the principles of Mechatronics design to product design.
CO5	Function effectively as members of multidisciplinary teams.

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, 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: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

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.

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PO10 Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	MAMATHA K M				
BRANCH	ME	ACADEMIC YEAR	2018-19		
COURSE	B.E	SEMESTER	VII	SECTION	
SUBJECT	MECHATRONICS	SUBJECT CODE	15ME754		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3											
CO2	3	3										
CO3	3	3										
CO4												
CO5		3										
AVERAGE	3	3										
OVERALL MAPPING OF SUBJECT												3.0

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	46.2	1.38											
CO2	53.3	1.59	1.59										
CO3	53.4	1.60	1.60										
CO4	46.2												
CO5	53.4		1.60										
AVERAGE	50.50	1.52	1.59										
FINAL ATTAINMENT LEVEL													1.55

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Academic year	2018-19			SEM	VII		Total strength			64		Subject	MECHATRONICS				Subject Code	15ME754									
SEM:VII	IA TEST 1(30M)			IA TEST 2(30M)			IA TEST 3(30M)			ASSIGNEMENT / QUIZ(10 M)			SEE MARKS(60)					Total Cos ATTAINMENT					% of individual CO				
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	TOTAL	CO1=34	CO2=44	CO3=34	CO4=34	CO5=34	CO1	CO2	CO3	CO4	CO5
1SV14ME011	4	5	9	4	5	9	4	5	9	1	1	1	1	1	7	7	7	7	7	35	12	17	13	12	13	0.35	0.39	0.38	0.35	0.38
1SV14ME016	6	4	10	6	4	10	6	4	10	1	1	1	1	1	11.2	11.2	11.2	11.2	11	56	18.2	22.2	16.2	18.2	16.2	0.54	0.50	0.48	0.54	0.48
1SV14ME018	3	11	14	3	11	14	3	11	14	1	1	1	1	1	7.2	7.2	7.2	7.2	7.2	36	11.2	22.2	19.2	11.2	19.2	0.33	0.50	0.56	0.33	0.56
1SV14ME026	5	9	14	5	9	14	5	9	14	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	14.2	23.2	18.2	14.2	18.2	0.42	0.53	0.54	0.42	0.54
1SV14ME034	8	4	12	8	4	12	8	4	12	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	14.6	18.6	10.6	14.6	10.6	0.43	0.42	0.31	0.43	0.31
1SV14ME055	9	5	14	9	5	14	9	5	14	1	1	1	1	1	12.2	12.2	12.2	12.2	12	61	22.2	27.2	18.2	22.2	18.2	0.65	0.62	0.54	0.65	0.54
1SV14ME064	7	7	14	7	7	14	7	7	14	1	1	1	1	1	7.8	7.8	7.8	7.8	7.8	39	15.8	22.8	15.8	15.8	15.8	0.46	0.52	0.46	0.46	0.46
1SV14ME083	5	9	14	5	9	14	5	9	14	1	1	1	1	1	9.6	9.6	9.6	9.6	9.6	48	15.6	24.6	19.6	15.6	19.6	0.46	0.56	0.58	0.46	0.58
1SV14ME084	4	6	10	4	6	10	4	6	10	1	1	1	1	1	9	9	9	9	9	45	14	20	16	14	16	0.41	0.45	0.47	0.41	0.47
1SV15ME001	6	7	13	6	7	13	6	7	13	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	15.2	22.2	16.2	15.2	16.2	0.45	0.50	0.48	0.45	0.48
1SV15ME003	8	5	13	8	5	13	8	5	13	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	17.2	22.2	14.2	17.2	14.2	0.51	0.50	0.42	0.51	0.42
1SV15ME007	7	8	15	7	8	15	7	8	15	1	1	1	1	1	9	9	9	9	9	45	17	25	18	17	18	0.50	0.57	0.53	0.50	0.53
1SV15ME008	6	9	15	6	9	15	6	9	15	1	1	1	1	1	6.6	6.6	6.6	6.6	6.6	33	13.6	22.6	16.6	13.6	16.6	0.40	0.51	0.49	0.40	0.49
1SV15ME010	5	6	11	5	6	11	5	6	11	1	1	1	1	1	8.4	8.4	8.4	8.4	8.4	42	14.4	20.4	15.4	14.4	15.4	0.42	0.46	0.45	0.42	0.45
1SV15ME017	4	8	12	4	8	12	4	8	12	1	1	1	1	1	10	10	10	10	10	50	15	23	19	15	19	0.44	0.52	0.56	0.44	0.56
1SV15ME018	5	9	14	5	9	14	5	9	14	1	1	1	1	1	8	8	8	8	8	40	14	23	18	14	18	0.41	0.52	0.53	0.41	0.53
1SV15ME019	5	8	13	5	8	13	5	8	13	1	1	1	1	1	11.6	11.6	11.6	11.6	12	58	17.6	25.6	20.6	17.6	20.6	0.52	0.58	0.61	0.52	0.61
1SV15ME023	9	4	13	9	4	13	9	4	13	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	18.2	22.2	13.2	18.2	13.2	0.54	0.50	0.39	0.54	0.39
1SV15ME025	8	6	14	8	6	14	8	6	14	1	1	1	1	1	10	10	10	10	10	50	19	25	17	19	17	0.56	0.57	0.50	0.56	0.50
1SV15ME027	7	5	12	7	5	12	7	5	12	1	1	1	1	1	11	11	11	11	11	55	19	24	17	19	17	0.56	0.55	0.50	0.56	0.50
1SV15ME028	4	10	14	4	10	14	4	10	14	1	1	1	1	1	11.4	11.4	11.4	11.4	11	57	16.4	26.4	22.4	16.4	22.4	0.48	0.60	0.66	0.48	0.66
1SV15ME032	5	6	11	5	6	11	5	6	11	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	14.2	20.2	15.2	14.2	15.2	0.42	0.46	0.45	0.42	0.45
1SV15ME034	6	7	13	6	7	13	6	7	13	1	1	1	1	1	7.6	7.6	7.6	7.6	7.6	38	14.6	21.6	15.6	14.6	15.6	0.43	0.49	0.46	0.43	0.46
1SV15ME039	9	5	14	9	5	14	9	5	14	1	1	1	1	1	5.6	5.6	5.6	5.6	5.6	28	15.6	20.6	11.6	15.6	11.6	0.46	0.47	0.34	0.46	0.34
1SV15ME042	3	8	11	3	8	11	3	8	11	1	1	1	1	1	7	7	7	7	7	35	11	19	16	11	16	0.32	0.43	0.47	0.32	0.47
1SV15ME044	2	10	12	2	10	12	2	10	12	1	1	1	1	1	10.2	10.2	10.2	10.2	10	51	13.2	23.2	21.2	13.2	21.2	0.39	0.53	0.62	0.39	0.62
1SV15ME045	5	7	12	5	7	12	5	7	12	1	1	1	1	1	11.2	11.2	11.2	11.2	11	56	17.2	24.2	19.2	17.2	19.2	0.51	0.55	0.56	0.51	0.56
1SV15ME048	4	9	13	4	9	13	4	9	13	1	1	1	1	1	10.4	10.4	10.4	10.4	10	52	15.4	24.4	20.4	15.4	20.4	0.45	0.55	0.60	0.45	0.60
1SV15ME049	6	4	10	6	4	10	6	4	10	1	1	1	1	1	12	12	12	12	12	60	19	23	17	19	17	0.56	0.52	0.50	0.56	0.50
1SV15ME051	4	10	14	4	10	14	4	10	14	1	1	1	1	1	12.2	12.2	12.2	12.2	12	61	17.2	27.2	23.2	17.2	23.2	0.51	0.62	0.68	0.51	0.68
1SV15ME056	3	10	13	3	10	13	3	10	13	1	1	1	1	1	12.8	12.8	12.8	12.8	13	64	16.8	26.8	23.8	16.8	23.8	0.49	0.61	0.70	0.49	0.70
1SV15ME058	8	3	11	8	3	11	8	3	11	1	1	1	1	1	8.4	8.4	8.4	8.4	8.4	42	17.4	20.4	12.4	17.4	12.4	0.51	0.46	0.36	0.51	0.36
1SV15ME059	5	7	12	5	7	12	5	7	12	1	1	1	1	1	6.6	6.6	6.6	6.6	6.6	33	12.6	19.6	14.6	12.6	14.6	0.37	0.45	0.43	0.37	0.43
1SV15ME062	2	12	14	2	12	14	2	12	14	1	1	1	1	1	11.2	11.2	11.2	11.2	11	56	14.2	26.2	24.2	14.2	24.2	0.42	0.60	0.71	0.42	0.71
1SV15ME066	3	11	14	3	11	14	3	11	14	1	1	1	1	1	10.6	10.6	10.6	10.6	11	53	14.6	25.6	22.6	14.6	22.6	0.43	0.58	0.66	0.43	0.66
1SV15ME067	6	5	11	6	5	11	6	5	11	1	1	1	1	1	6.8	6.8	6.8	6.8	6.8	34	13.8	18.8	12.8	13.8	12.8	0.41	0.43	0.38	0.41	0.38
1SV15ME070	7	8	15	7	8	15	7	8	15	1	1	1	1	1	7.4	7.4	7.4	7.4	7.4	37	15.4	23.4	16.4	15.4	16.4	0.45	0.53	0.48	0.45	0.48
1SV15ME072	4	11	15	4	11	15	4	11	15	1	1	1	1	1	12.4	12.4	12.4	12.4	12	62	17.4	28.4	24.4	17.4	24.4	0.51	0.65	0.72	0.51	0.72
1SV15ME073	5	10	15	5	10	15	5	10	15	1	1	1	1	1	9.8	9.8	9.8	9.8	9.8	49	15.8	25.8	20.8	15.8	20.8	0.46	0.59	0.61	0.46	0.61
1SV15ME074	2	11	13	2	11	13	2	11	13	1	1	1	1	1	8.4	8.4	8.4	8.4	8.4	42	11.4	22.4	20.4	11.4	20.4	0.34	0.51	0.60	0.34	0.60
1SV15ME075	3	10	13	3	10	13	3	10	13	1	1	1	1	1	12	12	12	12	12	60	16	26	23	16	23	0.47	0.59	0.68	0.47	0.68
1SV15ME076	6	9	15	6	9	15	6	9	15	1	1	1	1	1	9.4	9.4	9.4	9.4	9.4	47	16.4	25.4	19.4	16.4	19.4	0.48	0.58	0.57	0.48	0.57
1SV15ME077	5	5	10	5	5	10	5	5	10	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	14.2	19.2	14.2	14.2	14.2	0.42	0.44	0.42	0.42	0.42
1SV15ME079	4	9	13	4	9	13	4	9	13	1	1	1	1	1	10.4	10.4	10.4	10.4	10	52	15.4	24.4	20.4	15.4	20.4	0.45	0.55	0.60	0.45	0.60
1SV15ME083	7	5	12	7	5	12	7	5	12	1	1	1	1	1	7.6	7.6	7.6	7.6	7.6	38	15.6	20.6	13.6	15.6	13.6	0.46	0.47	0.40	0.46	0.40
1SV16ME400	6	6	12	6	6	12	6	6	12	1	1	1	1	1	9.2	9.2	9.2	9.2	9.2	46	16.2	22.2	16.2	16.2	16.2	0.48	0.50	0.48	0.48	0.48
1SV16ME402	2	12	14	2	12	14	2	12	14	1	1	1	1	1	10.2	10.2	10.2	10.2	10	51	13.2	25.2	23.2	13.2	23.2	0.39	0.57	0.68	0.39	0.68
1SV16ME403	3	10	13	3	10	13	3	10	13	1	1	1	1	1	8.4	8.4	8.4	8.4	8.4	42	12.4	22.4	19.4	12.4	19.4	0.36	0.51	0.57	0.36	0.57
1SV16ME404	5	9	14	5	9	14	5	9	14	1	1	1	1	1	11.6	11.6	11.6	11.6	12	58	17.6	26.6	21.6	17.6	21.6	0.52	0.60	0.64	0.52	0.64
1SV16ME405	4	8	12	4	8	12	4	8	12	1	1	1	1	1	10	10	10	10	10	50	15	23	19	15	19	0.44	0.52	0.56	0.44	0.56
1SV16ME407	7	8	15	7	8	15	7	8	15	1	1	1	1	1	10.4	10.4	10.4	10.4	10	52	18.4	26.4	19.4	18.4	19.4	0.54	0.60	0.57	0.54	0.57
1SV16ME408	3	11	14	3	11	14	3	11	14	1	1	1	1	1	8	8	8	8	8	40	12	23	20	12	20	0.35	0.52	0.59	0.35	0.59

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1SV16ME409	6	6	12	6	6	12	6	6	12	1	1	1	1	1	11	11	11	11	11	55	18	24	18	18	18	0.53	0.55	0.53	0.53	0.53
1SV16ME410	5	9	14	5	9	14	5	9	14	1	1	1	1	1	12	12	12	12	12	60	18	27	22	18	22	0.53	0.61	0.65	0.53	0.65
1SV16ME412	4	9	13	4	9	13	4	9	13	1	1	1	1	1	10	10	10	10	10	50	15	24	20	15	20	0.44	0.55	0.59	0.44	0.59
1SV16ME413	8	5	13	8	5	13	8	5	13	1	1	1	1	1	7	7	7	7	7	35	16	21	13	16	13	0.47	0.48	0.38	0.47	0.38
1SV16ME416	7	4	11	7	4	11	7	4	11	1	1	1	1	1	8.4	8.4	8.4	8.4	8.4	42	16.4	20.4	13.4	16.4	13.4	0.48	0.46	0.39	0.48	0.39
1SV16ME417	9	6	15	9	6	15	9	6	15	1	1	1	1	1	10.4	10.4	10.4	10.4	10	52	20.4	26.4	17.4	20.4	17.4	0.60	0.60	0.51	0.60	0.51
1SV16ME418	3	10	13	3	10	13	3	10	13	1	1	1	1	1	8.8	8.8	8.8	8.8	8.8	44	12.8	22.8	19.8	12.8	19.8	0.38	0.52	0.58	0.38	0.58
1SV16ME419	5	10	15	5	10	15	5	10	15	1	1	1	1	1	10	10	10	10	10	50	16	26	21	16	21	0.47	0.59	0.62	0.47	0.62
1SV16ME421	4	10	14	4	10	14	4	10	14	1	1	1	1	1	8.6	8.6	8.6	8.6	8.6	43	13.6	23.6	19.6	13.6	19.6	0.40	0.54	0.58	0.40	0.58
1SV16ME423	5	10	15	5	10	15	5	10	15	1	1	1	1	1	12.2	12.2	12.2	12.2	12	61	18.2	28.2	23.2	18.2	23.2	0.54	0.64	0.68	0.54	0.68
1SV16ME424	9	6	15	9	6	15	9	6	15	1	1	1	1	1	11.4	11.4	11.4	11.4	11	57	21.4	27.4	18.4	21.4	18.4	0.63	0.62	0.54	0.63	0.54
1SV16ME425	5	9	14	5	9	14	5	9	14	1	1	1	1	1	10.2	10.2	10.2	10.2	10	51	16.2	25.2	20.2	16.2	20.2	0.48	0.57	0.59	0.48	0.59
TOTAL	339	495	834	339	495	834	339	495	834	64	64	64	64	64	602.6	602.6	602.6	602.6	603	3013	1005.6	1500.6	1161.6	1005.6	1161.6	29.6	34.1	34.2	29.6	34.2
NO OF STUDENTS	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64.0	64.0	64.0	64.0	64.0	64.0
AVERAGE	5.297	7.73	13.031	5.3	7.734	13.03	5.297	7.73	13.031	1	1	1	1	1	9.4156	9.416	9.416	9.416	9.4	47.1	15.7125	23.4469	18.15	15.7125	18.2	46.2	53.3	53.4	46.2	53.4

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SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING

EVEN SEM

2018-19

SHRIDEVI	**SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY** **SIRA ROAD, TUMKUR- 572 106.**

DEPARTMENT OF ME

SUBJECT	DESIGN OF MACHINE ELEMENT-II	SUBJECT CODE	15ME64

COURSE OUTCOME

CO1	Understand & Analyze the stresses in curved beams, cylinders, and cylinder heads
CO2	Decide flexible drives (belts, ropes, and chains) required for power transmission and springs.
CO3	Analyze and design different types of gears for static and dynamic loads and apply in real life application
CO4	Design clutches and brakes for static and dynamic loads
CO5	Carry out the design of journal bearing by choosing the lubricant and choice of ball and roller bearings

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, 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: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

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 the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	K P Chandraiah				
BRANCH	ME	ACADEMIC YEAR	2018-19		
COURSE	B.E	SEMESTER	VI	SECTION	
SUBJECT	DESIGN OF MACHINE ELEMENT-II	SUBJECT CODE	15ME64		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2				1						
CO2	2	3	2			1						1
CO3	3		3			2						1
CO4	3	3	3			2						1
CO5	3	3	2			2	1					1
AVERAGE	2.20	2.75	2.50			1.60	1					1
OVERALL MAPPING OF SUBJECT												1.84

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	42.0	1.26	0.84				0.42						
CO2	38.0	0.76	1.14	0.76			0.38						0.38
CO3	41.0	1.23		1.23			0.82						0.41
CO4	8.00	0.24	0.24	0.24			0.16						0.08
CO5	9.00	0.27	0.27	0.18			0.18	0.09					0.09
AVERAGE	27.6	0.75	0.62	0.60			0.39	0.09					0.24
FINAL ATTAINMENT LEVEL													0.44

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Academic year	2018-19			SEM	VI		Total strength			25		Subject	Design of Machine Elements - II			Subject Code	15ME64												
SEM:VI	IA TEST 1(30M)			IA TEST 2(30M)			IA TEST 3(30M)			ASSIGNEMENT / QUIZ(10 M)					SEE MARKS(60)					Total Cos ATTAINMENT					% of individual CO				
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	CO1=29	CO2=44	CO3=29	CO4=29	CO5=29	CO1	CO2	CO3	CO4	CO5
1SV14ME006	14	2	16	10	15	25	0	0	0	2	2	2	2	2	0	0	0	0	0	16	14	17	2	2	0.55	0.32	0.59	0.07	0.069
1SV14ME028	14	2	16	12	15	27	0	0	0	2	2	2	2	2	0	0	0	0	0	16	16	17	2	2	0.55	0.36	0.59	0.07	0.069
1SV14ME030	14	2	16	10	11	21	0	0	0	2	2	2	2	2	0	0	0	0	0	16	14	13	2	2	0.55	0.32	0.45	0.07	0.069
1SV14ME038	0	0	0	0	0	0	0	0	0	2	2	2	2	2	0	0	0	0	0	2	2	2	2	2	0.07	0.05	0.07	0.07	0.069
1SV14ME047	15	13	28	0	0	0	0	0	0	2	2	2	2	2	0	0	0	0	0	17	15	2	2	2	0.59	0.34	0.07	0.07	0.069
1SV14ME069	12	13	25	7	12	19	0	0	0	2	2	2	2	2	0	0	0	0	0	14	22	14	2	2	0.48	0.50	0.48	0.07	0.069
1SV14ME073	15	0	15	10	8	18	0	0	0	2	2	2	2	2	0	0	0	0	0	17	12	10	2	2	0.59	0.27	0.34	0.07	0.069
1SV14ME088	15	13	28	8	15	23	0	0	0	2	2	2	2	2	0	0	0	0	0	17	23	17	2	2	0.59	0.52	0.59	0.07	0.069
1SV15ME006	6	13	19	15	15	30	0	0	0	2	2	2	2	2	0	0	0	0	0	8	30	17	2	2	0.28	0.68	0.59	0.07	0.069
1SV15ME009	0	0	0	0	0	0	0	0	0	2	2	2	2	2	0	0	0	0	0	2	2	2	2	2	0.07	0.05	0.07	0.07	0.069
1SV15ME013	8	8	16	11	10	21	0	0	0	2	2	2	2	2	0	0	0	0	0	10	21	12	2	2	0.34	0.48	0.41	0.07	0.069
1SV15ME014	15	14	29	11	11	22	0	0	0	2	2	2	2	2	0	0	0	0	0	17	27	13	2	2	0.59	0.61	0.45	0.07	0.069
1SV15ME015	0	0	0	0	0	0	0	0	0	2	2	2	2	2	0	0	0	0	0	2	2	2	2	2	0.07	0.05	0.07	0.07	0.069
1SV15ME022	14	15	29	8	14	22	0	0	0	2	2	2	2	2	0	0	0	0	0	16	25	16	2	2	0.55	0.57	0.55	0.07	0.069
1SV15ME026	13	6	19	6	12	18	0	0	0	2	2	2	2	2	0	0	0	0	0	15	14	14	2	2	0.52	0.32	0.48	0.07	0.069
1SV15ME037	15	14	29	8	13	21	0	0	0	2	2	2	2	2	0	0	0	0	0	17	24	15	2	2	0.59	0.55	0.52	0.07	0.069
1SV15ME038	6	2	8	0	0	0	5	15	20	2	2	2	2	2	0	0	0	0	0	8	4	2	7	17	0.28	0.09	0.07	0.24	0.586
1SV15ME052	10	0	10	11	15	26	0	0	0	2	2	2	2	2	0	0	0	0	0	12	13	17	2	2	0.41	0.30	0.59	0.07	0.069
1SV15ME060	10	13	23	13	15	28	0	0	0	2	2	2	2	2	0	0	0	0	0	12	28	17	2	2	0.41	0.64	0.59	0.07	0.069
1SV15ME063	15	12	27	8	15	23	0	0	0	2	2	2	2	2	0	0	0	0	0	17	22	17	2	2	0.59	0.50	0.59	0.07	0.069
1SV15ME081	15	0	15	12	8	20	0	0	0	2	2	2	2	2	0	0	0	0	0	17	14	10	2	2	0.59	0.32	0.34	0.07	0.069
1SV15ME086	15	14	29	8	14	22	0	0	0	2	2	2	2	2	0	0	0	0	0	17	24	16	2	2	0.59	0.55	0.55	0.07	0.069
1SV16ME406	6	14	20	11	14	25	0	0	0	2	2	2	2	2	0	0	0	0	0	8	27	16	2	2	0.28	0.61	0.55	0.07	0.069
1SV16ME411	0	0	0	0	0	0	0	0	0	2	2	2	2	2	0	0	0	0	0	2	2	2	2	2	0.07	0.05	0.07	0.07	0.069
1SV16ME415	4	8	12	10	15	25	0	0	0	2	2	2	2	2	0	0	0	0	0	6	20	17	2	2	0.21	0.45	0.59	0.07	0.069
TOTAL	251	178	429	189	247	436	5	15	20	50	50	50	50	50	0	0	0	0	0	301	417	297	55	65	10.38	9.48	10.24	1.90	2.24
No of Students	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Average	10.04	7.12	17.16	7.56	9.88	17.44	0.2	0.6	0.8	2	2	2	2	2	0	0	0	0	0	12.04	16.68	11.88	2.2	2.6	0.42	0.38	0.41	0.08	0.09

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SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY

SIRA ROAD, TUMKUR- 572 106.

DEPARTMENT OF ME

SUBJECT	OPERATIONS RESEARCH	SUBJECT CODE	15ME81

COURSE OUTCOME

CO1	Apply the significance of Operations Research in decision making and identify and develop mathematical model from verbal description of real system problems
CO2	Obtain the solution of formulated real life problem with its inherent resources and constraints.
CO3	Recognize and formulate a transportation and assignment model and obtain optimal solution with all the variants of models.
CO4	Construct network diagram and determine critical path, floats for deterministic and PERT networks including crashing of networks and waiting line problems for M/M/1 and M/M/K queuing theory
CO5	Solve problems on game theory for pure and mixed strategy under competitive environment and also Determine minimum processing times for sequencing of n jobs-2 machines, n jobs-3machines,n jobs-mmachines and 2 jobs-n machines using Johnson's algorithm.

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, 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: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

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 the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	RAVI KUMAR K R				
BRANCH	ME	ACADEMIC YEAR	2018-19		
COURSE	B.E	SEMESTER	VIII	SECTION	
SUBJECT	OPERATIONS RESEARCH	SUBJECT CODE	15ME81		

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3											
CO2	3	2	2									
CO3	3	2	2									
CO4	3	2	2									
CO5	3	2	2									
AVERAGE	3	2	2									
OVERALL MAPPING OF SUBJECT												2.33

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	35.72	1.07											
CO2	37.15	1.11	0.74	0.74									
CO3	48.72	1.46	0.97	0.97									
CO4	42.84	1.28	0.85	0.85									
CO5	48.45	1.45	0.96	0.96									
AVERAGE	42.57	1.27	0.88	0.88									
FINAL ATTAINMENT LEVEL													1.01

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Academic year	2018-19			SEM	VIII		Total strength			64		Subject						Subject Code		15ME81								
SEM(VIII	IA TEST 1(20M)			IA TEST 2(20M)			IA TEST 3(20M)			ASSIGNEMENT / QUIZ(5M)					SEE MARKS(80)						Total Cos ATTAINMENT					% of individual CO				
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	TOTAL	CO1=34	CO2=44	CO3=34	CO4=34	CO5=34	CO1	CO2	CO3	CO4	CO5
1SV14ME011	1	2	3	2	3	5	2	9	11	1	1	1	1	1	6.4	6.4	6.4	6.4	6.4	32	8.4	11.4	10.4	9.4	16.4	0.25	0.26	0.31	0.28	0.48
1SV14ME016	1	1	2	0	1	1	6	5	11	1	1	1	1	1	7.4	7.4	7.4	7.4	7.4	37	9.4	9.4	9.4	14.4	13.4	0.28	0.21	0.28	0.42	0.39
1SV14ME018	1	0	1	6	4	10	3	10	13	1	1	1	1	1	6.4	6.4	6.4	6.4	6.4	32	8.4	13.4	11.4	10.4	17.4	0.25	0.30	0.34	0.31	0.51
1SV14ME026	0	0	0	3	7	10	3	10	13	1	1	1	1	1	5	5	5	5	5	25	6	9	13	9	16	0.18	0.20	0.38	0.26	0.47
1SV14ME034	1	2	3	7	6	13	6	8	14	1	1	1	1	1	8	8	8	8	8	40	10	18	15	15	17	0.29	0.41	0.44	0.44	0.50
1SV14ME055	2	2	4	6	9	15	6	7	13	1	1	1	1	1	10	10	10	10	10	50	13	19	20	17	18	0.38	0.43	0.59	0.50	0.53
1SV14ME064	1	1	2	6	4	10	9	1	10	1	1	1	1	1	7.8	7.8	7.8	7.8	7.8	39	9.8	15.8	12.8	17.8	9.8	0.29	0.36	0.38	0.52	0.29
1SV14ME083	0	0	0	0	15	15	5	7	12	1	1	1	1	1	6.8	6.8	6.8	6.8	6.8	34	7.8	7.8	22.8	12.8	14.8	0.23	0.18	0.67	0.38	0.44
1SV14ME084	0	0	0	0	0	0	0	0	0	1	1	1	1	1	13	13	13	13	13	65	14	14	14	14	14	0.41	0.32	0.41	0.41	0.41
1SV15ME001	2	0	2	7	0	7	6	7	13	1	1	1	1	1	8.6	8.6	8.6	8.6	8.6	43	11.6	16.6	9.6	15.6	16.6	0.34	0.38	0.28	0.46	0.49
1SV15ME003	7	4	11	7	7	14	5	9	14	1	1	1	1	1	10.2	10.2	10.2	10.2	10.2	51	18.2	22.2	18.2	16.2	20.2	0.54	0.50	0.54	0.48	0.59
1SV15ME007	4	11	15	6	9	15	0	0	0	1	1	1	1	1	11	11	11	11	11	55	16	29	21	12	12	0.47	0.66	0.62	0.35	0.35
1SV15ME008	6	9	15	2	12	14	0	0	0	1	1	1	1	1	8.6	8.6	8.6	8.6	8.6	43	15.6	20.6	21.6	9.6	9.6	0.46	0.47	0.64	0.28	0.28
1SV15ME010	3	9	12	3	12	15	3	4	7	1	1	1	1	1	7.6	7.6	7.6	7.6	7.6	38	11.6	20.6	20.6	11.6	12.6	0.34	0.47	0.61	0.34	0.37
1SV15ME017	7	3	10	1	10	11	6	6	12	1	1	1	1	1	13.4	13.4	13.4	13.4	13.4	67	21.4	18.4	24.4	20.4	20.4	0.63	0.42	0.72	0.60	0.60
1SV15ME018	6	3	9	1	10	11	5	5	10	1	1	1	1	1	8.8	8.8	8.8	8.8	8.8	44	15.8	13.8	19.8	14.8	14.8	0.46	0.31	0.58	0.44	0.44
1SV15ME019	5	0	5	6	0	6	6	9	15	1	1	1	1	1	10.4	10.4	10.4	10.4	10.4	52	16.4	17.4	11.4	17.4	20.4	0.48	0.40	0.34	0.51	0.60
1SV15ME023	12	0	12	8	6	14	5	10	15	1	1	1	1	1	9.2	9.2	9.2	9.2	9.2	46	22.2	18.2	16.2	15.2	20.2	0.65	0.41	0.48	0.45	0.59
1SV15ME025	13	1	14	7	8	15	6	9	15	1	1	1	1	1	9.2	9.2	9.2	9.2	9.2	46	23.2	18.2	18.2	16.2	19.2	0.68	0.41	0.54	0.48	0.56
1SV15ME027	2	4	6	9	5	14	7	8	15	1	1	1	1	1	13	13	13	13	13	65	16	27	19	21	22	0.47	0.61	0.56	0.62	0.65
1SV15ME028	1	1	2	12	1	13	4	5	9	1	1	1	1	1	6.4	6.4	6.4	6.4	6.4	32	8.4	20.4	8.4	11.4	12.4	0.25	0.46	0.25	0.34	0.36
1SV15ME032	4	1	5	4	3	7	5	7	12	1	1	1	1	1	6.2	6.2	6.2	6.2	6.2	31	11.2	12.2	10.2	12.2	14.2	0.33	0.28	0.30	0.36	0.42
1SV15ME034	0	0	0	0	0	0	0	9	9	1	1	1	1	1	6.6	6.6	6.6	6.6	6.6	33	7.6	7.6	7.6	7.6	16.6	0.22	0.17	0.22	0.22	0.49
1SV15ME039	0	6	6	0	0	0	0	0	0	1	1	1	1	1	9	9	9	9	9	45	10	16	10	10	10	0.29	0.36	0.29	0.29	0.29
1SV15ME042	0	0	0	5	8	13	5	8	13	1	1	1	1	1	9.4	9.4	9.4	9.4	9.4	47	10.4	15.4	18.4	15.4	18.4	0.31	0.35	0.54	0.45	0.54
1SV15ME044	5	3	8	0	0	0	8	5	13	1	1	1	1	1	12.4	12.4	12.4	12.4	12.4	62	18.4	16.4	13.4	21.4	18.4	0.54	0.37	0.39	0.63	0.54
1SV15ME045	4	2	6	5	8	13	9	4	13	1	1	1	1	1	4.8	4.8	4.8	4.8	4.8	24	9.8	12.8	13.8	14.8	9.8	0.29	0.29	0.41	0.44	0.29
1SV15ME048	5	0	5	2	11	13	6	9	15	1	1	1	1	1	10	10	10	10	10	50	16	13	22	17	20	0.47	0.30	0.65	0.50	0.59
1SV15ME049	1	2	3	4	6	10	5	9	14	1	1	1	1	1	9	9	9	9	9	45	11	16	16	15	19	0.32	0.36	0.47	0.44	0.56
1SV15ME051	0	0	0	4	9	13	4	10	14	1	1	1	1	1	8.8	8.8	8.8	8.8	8.8	44	9.8	13.8	18.8	13.8	19.8	0.29	0.31	0.55	0.41	0.58
1SV15ME056	4	0	4	4	10	14	6	5	11	1	1	1	1	1	9.8	9.8	9.8	9.8	9.8	49	14.8	14.8	20.8	16.8	15.8	0.44	0.34	0.61	0.49	0.46
1SV15ME058	2	1	3	1	13	14	4	8	12	1	1	1	1	1	4.6	4.6	4.6	4.6	4.6	23	7.6	7.6	18.6	9.6	13.6	0.22	0.17	0.55	0.28	0.40
1SV15ME059	2	0	2	0	0	0	5	9	14	1	1	1	1	1	6.6	6.6	6.6	6.6	6.6	33	9.6	7.6	7.6	12.6	16.6	0.28	0.17	0.22	0.37	0.49
1SV15ME062	7	1	8	4	11	15	4	11	15	1	1	1	1	1	14.4	14.4	14.4	14.4	14.4	72	22.4	20.4	26.4	19.4	26.4	0.66	0.46	0.78	0.57	0.78
1SV15ME066	5	2	7	5	10	15	3	10	13	1	1	1	1	1	10.2	10.2	10.2	10.2	10.2	51	16.2	18.2	21.2	14.2	21.2	0.48	0.41	0.62	0.42	0.62
1SV15ME067	1	3	4	2	3	5	11	0	11	1	1	1	1	1	4.8	4.8	4.8	4.8	4.8	24	6.8	10.8	8.8	16.8	5.8	0.20	0.25	0.26	0.49	0.17
1SV15ME070	3	1	4	2	11	13	3	9	12	1	1	1	1	1	9	9	9	9	9	45	13	13	21	13	19	0.38	0.30	0.62	0.38	0.56
1SV15ME072	3	0	3	2	11	13	3	4	7	1	1	1	1	1	6.4	6.4	6.4	6.4	6.4	32	10.4	9.4	18.4	10.4	11.4	0.31	0.21	0.54	0.31	0.34
1SV15ME073	1	9	10	2	13	15	2	12	14	1	1	1	1	1	8.4	8.4	8.4	8.4	8.4	42	10.4	20.4	22.4	11.4	21.4	0.31	0.46	0.66	0.34	0.63
1SV15ME074	1	10	11	4	10	14	4	10	14	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	10.2	23.2	19.2	13.2	19.2	0.30	0.53	0.56	0.39	0.56
1SV15ME075	6	1	7	7	4	11	6	7	13	1	1	1	1	1	8	8	8	8	8	40	15	17	13	15	16	0.44	0.39	0.38	0.44	0.47
1SV15ME076	2	3	5	4	10	14	8	6	14	1	1	1	1	1	7.8	7.8	7.8	7.8	7.8	39	10.8	15.8	18.8	16.8	14.8	0.32	0.36	0.55	0.49	0.44
1SV15ME077	2	1	3	6	8	14	7	7	14	1	1	1	1	1	11.2	11.2	11.2	11.2	11.2	56	14.2	19.2	20.2	19.2	19.2	0.42	0.44	0.59	0.56	0.56
1SV15ME079	0	0	0	8	5	13	3	11	14	1	1	1	1	1	11.2	11.2	11.2	11.2	11.2	56	12.2	20.2	17.2	15.2	23.2	0.36	0.46	0.51	0.45	0.68
1SV15ME083	1	3	4	7	4	11	5	8	13	1	1	1	1	1	8.8	8.8	8.8	8.8	8.8	44	10.8	19.8	13.8	14.8	17.8	0.32	0.45	0.41	0.44	0.52
1SV16ME400	0	0	0	3	11	14	8	5	13	1	1	1	1	1	8.8	8.8	8.8	8.8	8.8	44	9.8	12.8	20.8	17.8	14.8	0.29	0.29	0.61	0.52	0.44
1SV16ME402	3	4	7	5	7	12	7	4	11	1	1	1	1	1	7	7	7	7	7	35	11	17	15	15	12	0.32	0.39	0.44	0.44	0.35
1SV16ME403	2	6	8	8	3	11	3	11	14	1	1	1	1	1	9.2	9.2	9.2	9.2	9.2	46	12.2	24.2	13.2	13.2	21.2	0.36	0.55	0.39	0.39	0.62
1SV16ME404	1	0	1	7	7	14	5	8	13	1	1	1	1	1	5.2	5.2	5.2	5.2	5.2	26	7.2	13.2	13.2	11.2	14.2	0.21	0.30	0.39	0.33	0.42
1SV16ME405	1	5	6	3	6	9	8	4	12	1	1	1	1	1	8	8	8	8	8	40	10	17	15	17	13	0.29	0.39	0.44	0.50	0.38
1SV16ME407	3	1	4	5	10	15	7	6	13	1	1	1	1	1	6.4	6.4	6.4	6.4	6.4	32	10.4	13.4	17.4	14.4	13.4	0.31	0.30	0.51	0.42	0.39
1SV16ME408	1	4	5	8	7	15	3	11	14	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	10.2	21.2	16.2	12.2	20.2	0.30	0.48	0.48	0.36	0.59

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1SV16ME409	2	2	4	7	7	14	5	8	13	1	1	1	1	1	9.4	9.4	9.4	9.4	9.4	47	12.4	19.4	17.4	15.4	18.4	0.36	0.44	0.51	0.45	0.54
1SV16ME410	1	6	7	3	11	14	8	2	10	1	1	1	1	1	7	7	7	7	7	35	9	17	19	16	10	0.26	0.39	0.56	0.47	0.29
1SV16ME412	5	2	7	5	8	13	7	4	11	1	1	1	1	1	6	6	6	6	6	30	12	14	15	14	11	0.35	0.32	0.44	0.41	0.32
1SV16ME413	6	4	10	8	5	13	3	8	11	1	1	1	1	1	11	11	11	11	11	55	18	24	17	15	20	0.53	0.55	0.50	0.44	0.59
1SV16ME416	0	0	0	7	7	14	5	8	13	1	1	1	1	1	9.6	9.6	9.6	9.6	9.6	48	10.6	17.6	17.6	15.6	18.6	0.31	0.40	0.52	0.46	0.55
1SV16ME417	2	3	5	3	11	14	8	4	12	1	1	1	1	1	9.4	9.4	9.4	9.4	9.4	47	12.4	16.4	21.4	18.4	14.4	0.36	0.37	0.63	0.54	0.42
1SV16ME418	0	0	0	5	10	15	7	7	14	1	1	1	1	1	13.2	13.2	13.2	13.2	13.2	66	14.2	19.2	24.2	21.2	21.2	0.42	0.44	0.71	0.62	0.62
1SV16ME419	0	0	0	8	7	15	3	10	13	1	1	1	1	1	10.2	10.2	10.2	10.2	10.2	51	11.2	19.2	18.2	14.2	21.2	0.33	0.44	0.54	0.42	0.62
1SV16ME421	1	1	2	7	6	13	5	8	13	1	1	1	1	1	6.4	6.4	6.4	6.4	6.4	32	8.4	15.4	13.4	12.4	15.4	0.25	0.35	0.39	0.36	0.45
1SV16ME423	1	4	5	3	11	14	8	6	14	1	1	1	1	1	8	8	8	8	8	40	10	16	20	17	15	0.29	0.36	0.59	0.50	0.44
1SV16ME424	0	0	0	5	5	10	7	7	14	1	1	1	1	1	8	8	8	8	8	40	9	14	14	16	16	0.26	0.32	0.41	0.47	0.47
1SV16ME425	1	4	5	4	11	15	3	13	16	1	1	1	1	1	5.4	5.4	5.4	5.4	5.4	27	7.4	14.4	17.4	9.4	19.4	0.22	0.33	0.51	0.28	0.57
TOTAL	164	148	312	285	447	732	319	441	760	64	64	64	64	64	549.2	549.2	549.2	549.2	549.2	2746	777.2	1046.2	1060.2	932.2	1054.2	22.86	23.78	31.18	27.42	31.01
No of Students	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
Average	2.56	2.3	4.875	4.45	6.984	11.438	4.98	6.89	11.88	1	1	1	1	1	8.58125	8.581	8.581	8.581	8.581	42.91	12.14	16.35	16.57	14.57	16.47	35.72	37.15	48.72	42.84	48.45

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SIRA ROAD, TUMKUR- 572 106.

DEPARTMENT OF ME

SUBJECT	ADDITIVE MANUFACTURING	SUBJECT CODE	15ME82

COURSE OUTCOME

CO1	Demonstrate the knowledge of the broad range of AM processes, devices, capabilities and materials that are available....
CO2	Demonstrate the knowledge of the broad range of AM processes, devices, capabilities and materials that are available
CO3	Understand the various software tools, processes and techniques that enable advanced/additive manufacturing
C04	Apply the concepts of additive manufacturing to design and create components that satisfy product development/prototyping requirements, using advanced/additive manufacturing devices and processes.
C05	Understand characterization techniques in additive manufacturing

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, 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: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

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 the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

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COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME	PRASHANTH S											
BRANCH	ME			ACADEMIC YEAR			2018-19					
COURSE	B.E	SEMESTER	VIII	SECTION								
SUBJECT	ADDITIVE MANUFACTURING					SUBJECT CODE	15ME82					

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3											
CO2	3	2										
CO3	3	2				1	1					
CO4												
CO5												
AVERAGE	3	2				1	1					
OVERALL MAPPING OF SUBJECT												1.75

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	50.98	1.52											
CO2	50.65	1.51	1.01										
CO3	47.53	1.42	0.95				0.47	0.47					
CO4	50.97												
CO5	47.53												
AVERAGE	49.53	1.48	0.98				0.47	0.47					
FINAL ATTAINMENT LEVEL													1.13

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Academic year	2018-19			SEM	VIII		Total strength			64		Subject	Additive Manufacturing				Subject Code			15ME82									
SEM:III	IA TEST 1(30M)			IA TEST 2(30M)			IA TEST 3(30M)			SSIGNEM		QUIZ(10 M					SEE MARKS(60)						Cos ATTAINMENT					% of individual CO				
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1=12	CO2	CO3	CO4	CO5	TOTAL	CO1=34	CO2=44	CO3=34	CO4=34	CO5=34	CO1	CO2	CO3	CO4	CO5
1SV14ME011	5	4	9	5	4	9	5	4	9	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	14.2	18.2	13.2	14.2	13.2	0.42	0.41	0.39	0.42	0.39
1SV14ME016	7	3	10	7	3	10	7	3	10	1	1	1	1	1	8	8	8	8	8	40	16	19	12	16	12	0.47	0.43	0.35	0.47	0.35
1SV14ME018	9	1	10	9	1	10	9	1	10	1	1	1	1	1	10.8	10.8	10.8	10.8	10.8	54	20.8	21.8	12.8	20.8	12.8	0.61	0.50	0.38	0.61	0.38
1SV14ME026	6	4	10	6	4	10	6	4	10	1	1	1	1	1	11.6	11.6	11.6	11.6	11.6	58	18.6	22.6	16.6	18.6	16.6	0.55	0.51	0.49	0.55	0.49
1SV14ME034	4	6	10	4	6	10	4	6	10	1	1	1	1	1	7.6	7.6	7.6	7.6	7.6	38	12.6	18.6	14.6	12.6	14.6	0.37	0.42	0.43	0.37	0.43
1SV14ME055	7	3	10	7	3	10	7	3	10	1	1	1	1	1	8.6	8.6	8.6	8.6	8.6	43	16.6	19.6	12.6	16.6	12.6	0.49	0.45	0.37	0.49	0.37
1SV14ME064	8	3	11	8	3	11	8	3	11	1	1	1	1	1	13	13	13	13	13	65	22	25	17	22	17	0.65	0.57	0.50	0.65	0.50
1SV14ME083	1	6	7	1	6	7	1	6	7	1	1	1	1	1	9.4	9.4	9.4	9.4	9.4	47	11.4	17.4	16.4	11.4	16.4	0.34	0.40	0.48	0.34	0.48
1SV14ME084	8	1	9	8	1	9	8	1	9	1	1	1	1	1	11.8	11.8	11.8	11.8	11.8	59	20.8	21.8	13.8	20.8	13.8	0.61	0.50	0.41	0.61	0.41
1SV15ME001	7	6	13	7	6	13	7	6	13	1	1	1	1	1	11.8	11.8	11.8	11.8	11.8	59	19.8	25.8	18.8	19.8	18.8	0.58	0.59	0.55	0.58	0.55
1SV15ME003	8	5	13	8	5	13	8	5	13	1	1	1	1	1	8.4	8.4	8.4	8.4	8.4	42	17.4	22.4	14.4	17.4	14.4	0.51	0.51	0.42	0.51	0.42
1SV15ME007	9	6	15	9	6	15	9	6	15	1	1	1	1	1	11	11	11	11	11	55	21	27	18	21	18	0.62	0.61	0.53	0.62	0.53
1SV15ME008	6	6	12	6	6	12	6	6	12	1	1	1	1	1	13.8	13.8	13.8	13.8	13.8	69	20.8	26.8	20.8	20.8	20.8	0.61	0.61	0.61	0.61	0.61
1SV15ME010	5	5	10	5	5	10	5	5	10	1	1	1	1	1	7.8	7.8	7.8	7.8	7.8	39	13.8	18.8	13.8	13.8	13.8	0.41	0.43	0.41	0.41	0.41
1SV15ME017	4	8	12	4	8	12	4	8	12	1	1	1	1	1	8	8	8	8	8	40	13	21	17	13	17	0.38	0.48	0.50	0.38	0.50
1SV15ME018	8	5	13	8	5	13	8	5	13	1	1	1	1	1	12	12	12	12	12	60	21	26	18	21	18	0.62	0.59	0.53	0.62	0.53
1SV15ME019	7	2	9	7	2	9	7	2	9	1	1	1	1	1	9.4	9.4	9.4	9.4	9.4	47	17.4	19.4	12.4	17.4	12.4	0.51	0.44	0.36	0.51	0.36
1SV15ME023	9	6	15	9	6	15	9	6	15	1	1	1	1	1	12	12	12	12	12	60	22	28	19	22	19	0.65	0.64	0.56	0.65	0.56
1SV15ME025	5	8	13	5	8	13	5	8	13	1	1	1	1	1	10.8	10.8	10.8	10.8	10.8	54	16.8	24.8	19.8	16.8	19.8	0.49	0.56	0.58	0.49	0.58
1SV15ME027	4	7	11	4	7	11	4	7	11	1	1	1	1	1	10	10	10	10	10	50	15	22	18	15	18	0.44	0.50	0.53	0.44	0.53
1SV15ME028	6	6	12	6	6	12	6	6	12	1	1	1	1	1	10.2	10.2	10.2	10.2	10.2	51	17.2	23.2	17.2	17.2	17.2	0.51	0.53	0.51	0.51	0.51
1SV15ME032	8	5	13	8	5	13	8	5	13	1	1	1	1	1	8.4	8.4	8.4	8.4	8.4	42	17.4	22.4	14.4	17.4	14.4	0.51	0.51	0.42	0.51	0.42
1SV15ME034	2	7	9	2	7	9	2	7	9	1	1	1	1	1	9.2	9.2	9.2	9.2	9.2	46	12.2	19.2	17.2	12.2	17.2	0.36	0.44	0.51	0.36	0.51
1SV15ME039	7	4	11	7	4	11	7	4	11	1	1	1	1	1	10.4	10.4	10.4	10.4	10.4	52	18.4	22.4	15.4	18.4	15.4	0.54	0.51	0.45	0.54	0.45
1SV15ME042	9	2	11	9	2	11	9	2	11	1	1	1	1	1	10.2	10.2	10.2	10.2	10.2	51	20.2	22.2	13.2	20.2	13.2	0.59	0.50	0.39	0.59	0.39
1SV15ME044	6	3	9	6	3	9	6	3	9	1	1	1	1	1	11.4	11.4	11.4	11.4	11.4	57	18.4	21.4	15.4	18.4	15.4	0.54	0.49	0.45	0.54	0.45
1SV15ME045	5	7	12	5	7	12	5	7	12	1	1	1	1	1	10.6	10.6	10.6	10.6	10.6	53	16.6	23.6	18.6	16.6	18.6	0.49	0.54	0.55	0.49	0.55
1SV15ME048	4	11	15	4	11	15	4	11	15	1	1	1	1	1	9	9	9	9	9	45	14	25	21	14	21	0.41	0.57	0.62	0.41	0.62
1SV15ME049	6	4	10	6	4	10	6	4	10	1	1	1	1	1	8.6	8.6	8.6	8.6	8.6	43	15.6	19.6	13.6	15.6	13.6	0.46	0.45	0.40	0.46	0.40
1SV15ME051	9	3	12	9	3	12	9	3	12	1	1	1	1	1	10.6	10.6	10.6	10.6	10.6	53	20.6	23.6	14.6	20.6	14.6	0.61	0.54	0.43	0.61	0.43
1SV15ME056	7	4	11	7	4	11	7	4	11	1	1	1	1	1	11.8	11.8	11.8	11.8	11.8	59	19.8	23.8	16.8	19.8	16.8	0.58	0.54	0.49	0.58	0.49
1SV15ME058	4	6	10	4	6	10	4	6	10	1	1	1	1	1	11	11	11	11	11	55	16	22	18	16	18	0.47	0.50	0.53	0.47	0.53
1SV15ME059	6	4	10	6	4	10	6	4	10	1	1	1	1	1	8.8	8.8	8.8	8.8	8.8	44	15.8	19.8	13.8	15.8	13.8	0.46	0.45	0.41	0.46	0.41
1SV15ME062	5	7	12	5	7	12	5	7	12	1	1	1	1	1	10.8	10.8	10.8	10.8	10.8	54	16.8	23.8	18.8	16.8	18.8	0.49	0.54	0.55	0.49	0.55
1SV15ME066	9	6	15	9	6	15	9	6	15	1	1	1	1	1	13.6	13.6	13.6	13.6	13.6	68	23.6	29.6	20.6	23.6	20.6	0.69	0.67	0.61	0.69	0.61
1SV15ME067	8	1	9	8	1	9	8	1	9	1	1	1	1	1	7.8	7.8	7.8	7.8	7.8	39	16.8	17.8	9.8	16.8	9.8	0.49	0.40	0.29	0.49	0.29
1SV15ME070	7	4	11	7	4	11	7	4	11	1	1	1	1	1	11.8	11.8	11.8	11.8	11.8	59	19.8	23.8	16.8	19.8	16.8	0.58	0.54	0.49	0.58	0.49
1SV15ME072	4	9	13	4	9	13	4	9	13	1	1	1	1	1	9.2	9.2	9.2	9.2	9.2	46	14.2	23.2	19.2	14.2	19.2	0.42	0.53	0.56	0.42	0.56
1SV15ME073	5	6	11	5	6	11	5	6	11	1	1	1	1	1	10.8	10.8	10.8	10.8	10.8	54	16.8	22.8	17.8	16.8	17.8	0.49	0.52	0.52	0.49	0.52
1SV15ME074	6	5	11	6	5	11	6	5	11	1	1	1	1	1	10.6	10.6	10.6	10.6	10.6	53	17.6	22.6	16.6	17.6	16.6	0.52	0.51	0.49	0.52	0.49
1SV15ME075	7	5	12	7	5	12	7	5	12	1	1	1	1	1	12.2	12.2	12.2	12.2	12.2	61	20.2	25.2	18.2	20.2	18.2	0.59	0.57	0.54	0.59	0.54
1SV15ME076	9	3	12	9	3	12	9	3	12	1	1	1	1	1	10.4	10.4	10.4	10.4	10.4	52	20.4	23.4	14.4	20.4	14.4	0.60	0.53	0.42	0.60	0.42
1SV15ME077	5	3	8	5	3	8	5	3	8	1	1	1	1	1	10.4	10.4	10.4	10.4	10.4	52	16.4	19.4	14.4	16.4	14.4	0.48	0.44	0.42	0.48	0.42
1SV15ME079	4	6	10	4	6	10	4	6	10	1	1	1	1	1	11.4	11.4	11.4	11.4	11.4	57	16.4	22.4	18.4	16.4	18.4	0.48	0.51	0.54	0.48	0.54
1SV15ME083	6	5	11	6	5	11	6	5	11	1	1	1	1	1	10.6	10.6	10.6	10.6	10.6	53	17.6	22.6	16.6	17.6	16.6	0.52	0.51	0.49	0.52	0.49
1SV16ME400	8	0	8	8	0	8	8	0	8	1	1	1	1	1	10.6	10.6	10.6	10.6	10.6	53	19.6	19.6	11.6	19.6	11.6	0.58	0.45	0.34	0.58	0.34
1SV16ME402	7	4	11	7	4	11	7	4	11	1	1	1	1	1	7.4	7.4	7.4	7.4	7.4	37	15.4	19.4	12.4	15.4	12.4	0.45	0.44	0.36	0.45	0.36
1SV16ME403	9	0	9	9	0	9	9	0	9	1	1	1	1	1	9.4	9.4	9.4	9.4	9.4	47	19.4	19.4	10.4	19.4	10.4	0.57	0.44	0.31	0.57	0.31
1SV16ME404	5	8	13	5	8	13	5	8	13	1	1	1	1	1	12.2	12.2	12.2	12.2	12.2	61	18.2	26.2	21.2	18.2	21.2	0.54	0.60	0.62	0.54	0.62
1SV16ME405	4	8	12	4	8	12	4	8	12	1	1	1	1	1	10	10	10	10	10	50	15	23	19	15	19	0.44	0.52	0.56	0.44	0.56
1SV16ME407	6	5	11	6	5	11	6	5	11	1	1	1	1	1	10	10	10	10	10	50	17	22	16	17	16	0.50	0.50	0.47	0.50	0.47

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1SV16ME408	2	5	7	2	5	7	2	5	7	1	1	1	1	1	9.6	9.6	9.6	9.6	9.6	48	12.6	17.6	15.6	12.6	15.6	0.37	0.40	0.46	0.37	0.46
1SV16ME409	5	7	12	5	7	12	5	7	12	1	1	1	1	1	13	13	13	13	13	65	19	25	21	19	21	0.56	0.59	0.62	0.56	0.62
1SV16ME410	6	5	11	6	5	11	6	5	11	1	1	1	1	1	7.2	7.2	7.2	7.2	7.2	36	14.2	19.2	13.2	14.2	13.2	0.42	0.44	0.39	0.42	0.39
1SV16ME412	6	5	11	6	5	11	6	5	11	1	1	1	1	1	11.8	11.8	11.8	11.8	11.8	59	18.8	23.8	17.8	18.8	17.8	0.55	0.54	0.52	0.55	0.52
1SV16ME413	5	5	10	5	5	10	5	5	10	1	1	1	1	1	8.2	8.2	8.2	8.2	8.2	41	14.2	19.2	14.2	14.2	14.2	0.42	0.44	0.42	0.42	0.42
1SV16ME416	6	3	9	6	3	9	6	3	9	1	1	1	1	1	10.4	10.4	10.4	10.4	10.4	52	17.4	20.4	14.4	17.4	14.4	0.51	0.46	0.42	0.51	0.42
1SV16ME417	2	9	11	2	9	11	2	9	11	1	1	1	1	1	10.2	10.2	10.2	10.2	10.2	51	13.2	22.2	20.2	13.2	20.2	0.39	0.50	0.59	0.39	0.59
1SV16ME418	6	6	12	6	6	12	6	6	12	1	1	1	1	1	9.8	9.8	9.8	9.8	9.8	49	16.8	22.8	16.8	16.8	16.8	0.49	0.52	0.49	0.49	0.49
1SV16ME419	9	3	12	9	3	12	9	3	12	1	1	1	1	1	11.8	11.8	11.8	11.8	11.8	59	21.8	24.8	15.8	21.8	15.8	0.64	0.56	0.46	0.64	0.46
1SV16ME421	6	7	13	6	7	13	6	7	13	1	1	1	1	1	10	10	10	10	10	50	17	24	18	17	18	0.50	0.55	0.53	0.50	0.53
1SV16ME423	4	8	12	4	8	12	4	8	12	1	1	1	1	1	10.2	10	10	10	10	51	15.2	23	19	15	19	0.45	0.52	0.56	0.44	0.56
1SV16ME424	6	6	12	6	6	12	6	6	12	1	1	1	1	1	9.2	9.2	9.2	9.2	9.2	46	16.2	22.2	16.2	16.2	16.2	0.48	0.50	0.48	0.48	0.48
1SV16ME425	9	2	11	9	2	11	9	2	11	1	1	1	1	1	8.6	8.6	8.6	8.6	8.6	43	18.6	20.6	11.6	18.6	11.6	0.55	0.47	0.34	0.55	0.34
TOTAL	392	317	709	392	317	709	392	317	709	64	64	64	64	64	653.4	653.2	653.2	653.2	653.2	3267	1109.4	1426.2	1034.2	1109.2	1034.2	32.63	32.41	30.42	32.62	30.42
NO OF STUDENTS	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
AVERAGE	6.13	4.953	11.08	6.13	4.953	11.078	6.13	4.95	11.08	1	1	1	1	1	10.21	10.21	10.21	10.21	10.21	51.05	17.33	22.28	16.16	17.33	16.16	50.98	50.65	47.53	50.97	47.53

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