SRI VENKATESWARA COLLEGE OF ENGINEERING
Karakambadi Road, Opposite LIC Training Centre, Tirupati – 517 507.
Department of Mechanical Engineering

Course Name: Dynamics of Machinery

Course Code: ME20APC401
Year/Semester II Year II Semester
Credits: 3
Batch: MECHANICAL 2020 - 2024

Dynamics of Machinery	C222.1	Understand the basic principles involved in friction, Precession, Balancing & Vibrations.(L2)
	C222.2	Determine Power Loss and Power Transmitted Due to Friction in Various Applications. (L3)
	C222.3	Apply Balancing Principles for Various Rotating and Reciprocating Masses. (L3)
	C222.4	Analyze the Magnitude of Vibration and Isolate Vibration of Dynamic Systems. (L4)
	C222.5	Determine the dimensions of Governors for Speed Control in mechanical devices. (L3)

II Year II Semester
Course Name: Dynamics of Machinery **Course Code: ME20APC401** **Year of Study:** II Year II Semester

Course Outcomes	POs & PSOs mapped	Periods of instruction
C222.1	PO1,PO2,PO5,PO6,PO7,PO12,PSO1,PSO2	8
C222.2	PO1,PO2,PO3,PO4,PO6,PO12,PSO1	10
C222.3	PO1,PO2,PO3,PO4,PO6,PO12,PSO1	8
C222.4	PO1,PO2,PO3,PO4,PO6,PO12,PSO1	7
C222.5	PO1,PO2,PO3,PO4,PO6,PO12,PSO1	7

C222 is the Second course in II year II semester and '.1' to '.6' are the outcomes of this course.

CO – PO/PSO matrix for the course

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C222.1	3	3	2			3							3	
C222.2	3	3	3			3	3					3	3	3
C222.3	3	3	3			3	3					3	3	3
C222.4	3	3	3			3	3					3	3	3
C222.5	3	3	3	3		3						3	3	

C222 is the Second course in II year II semester and '.1' to '.6' are the outcomes of this course.

Note: Enter correlation levels 1, 2 or 3 as defined below:
1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High),
If there is no correlation, put "-".

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Department of Mechanical Engineering

Procedure for establishing the correlation between the courses and POs& PSOs:
A course is related to POs and PSOs, by establishing a relation between the Course Outcomes of the course and the POs/PSOs.
The Course Outcomes defined for Course is taken as :

Course	Periods Engaged	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C222.1	8	8	8	2	0	0	7	0	0	0	0	0	0	8	0
C222.2	10	10	8	7	0	0	10	10	0	0	0	0	10	8	10
C222.3	8	8	8	8	8	0	8	0	0	0	0	0	8	8	0
C222.4	7	7	7	5	4	0	7	0	0	0	0	0	5	7	4
C222.5	7	7	7	6	6	0	6	0	0	0	0	0	6	7	0
Total	40	40	38	28	18	0	38	10	0	0	0	0	29	38	14
% PO		100	95	70	45	0	95	25	0	0	0	0	73	95	35
PO Level		3	3	3	2		3	2					3	3	2

More than one PO could be covered in a lecture, but each PO is given independent weightage for periods devoted

The target level of each PO is determined from this percentage as
Level 1: 5 to 25%; Level 2: 25 to <50%; Level 3: >= 50%

CO and Corresponding Target levels of POs
From the row , it is seen that the CO covers POs and PSOs
%

Course	Periods Engaged	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C222.1	8	100.00	100	25	0	0	88	0	0	0	0	0	0	100	0
C222.2	10	100.00	80	70	0	0	100	100	0	0	0	0	100	80	100
C222.3	8	80.00	100	100	100	0	100	0	0	0	0	0	100	100	0
C222.4	7	70.00	100	71	57	0	100	0	0	0	0	0	71.43	100	57.14
C222.5	7	70.00	100	86	86	0	86	0	0	0	0	0	85.71	100	0

CO – PO/PSO matrix for the course

Course	Periods Engaged	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C222.1	8	3	3	2			3							3	
C222.2	10	3	3	3			3	3					3	3	3
C222.3	8	3	3	3			3	3					3	3	3
C222.4	7	3	3	3			3	3					3	3	3
C222.5	7	3	3	3	3		3						3	3	

C222 is the Second course in II year II semester and '.1' to '.6' are the outcomes of this course.

Note: Enter correlation levels 1, 2 or 3 as defined below:
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SRI VENKATESWARA COLLEGE OF ENGINEERING
Karakambadi Road, Opposite LIC Training Centre, Tirupati – 517 507.
Department of Mechanical Engineering

Course Name: Dynamics of Machinery

S.No	CO	DESCRIPTION OF TOPIC	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	CO1	Basic principles of friction	1	1				1							1	
2	CO1	Basic principles in precession,	1	1				1							1	
3	CO1	Basic Principles in balancing	1	1											1	
4	CO1	Principles involved in Vibrations	1	1				1							1	
5	CO1	Dynamometer Principles and its types	1	1				1							1	
6	CO1	Friction in horizontal plane	1	1	1			1							1	
7	CO1	Friction in an Inclined plane	1	1				1							1	
8	CO1	Problems on inclined plane friction	1	1	1			1							1	
	CO1	**TOTAL**	**8**	**8**	**2**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**
1	CO2	Power transmission in bearings	1	1	1			1	1					1	1	1
2	CO2	Power transmission in clutches	1	1	1			1	1					1	1	1
3	CO2	Power transmission in Brakes	1	1	1			1	1					1	1	1
4	CO2	Turning moment Diagrams for Steam Engine,	1	1	1			1	1					1	1	1
5	CO2	IC Engine and Multi Cylinder Engine	1	1	1			1	1					1	1	1
6	CO2	Crank Effort - Coefficient of Fluctuation of Energy, Coefficient of Fluctuation of Speed	1	1	1			1	1					1	1	1
7	CO2	Fly Wheels and their Design	1	1				1	1					1	1	1
8	CO2	Problems on flywheel design	1	1	1			1	1					1	1	1
9	CO2	Fly Wheels for Punching Machines	1	1	1			1	1					1	1	1
10	CO2	Problems on Punching press power consumption	1	1	1			1	1					1	1	1
	CO2	**TOTAL**	**10**	**8**	**7**	**0**	**0**	**10**	**10**	**0**	**0**	**0**	**0**	**10**	**8**	**10**
1	CO3	Balancing of Rotating Masses in single Plane.	1	1	1	1		1						1	1	
2	CO3	Balancing of Rotating Masses in different Plane.	1	1	1	1		1						1	1	
3	CO3	Problems on balancing	1	1	1	1		1						1	1	
4	CO3	Balancing of reciprocating masses	1	1	1	1		1						1	1	
5	CO3	Primary balancing	1	1	1	1		1						1	1	
6	CO3	Secondary balancing	1	1	1	1		1						1	1	
7	CO3	Balancing in V cylinder Engines	1	1	1	1		1						1	1	
8	CO3	Balancing inline & Radial Engines	1	1	1	1		1						1	1	
	CO3	TOTAL	8	8	8	8	0	8	0	0	0	0	0	8	8	0

S.No	CO	DESCRIPTION OF TOPIC	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	CO4	Free and Forced Vibration of Single Degree of Freedom Systems introduction	1	1				1						1	1	
2	CO4	Damping principles	1	1				1							1	
3	CO4	Whirling of shaft phenomenon	1	1	1	1		1						1	1	
4	CO4	Problems on free and damped vibrations	1	1	1	1		1							1	1
5	CO4	Transverse Vibrations of Beams with Concentrated and Distributed Loads	1	1	1	1		1						1	1	1
6	CO4	Methods to found vibrations	1	1	1	1		1						1	1	1
7	CO4	Torsional vibrations - 2 & 3 rotor systems	1	1	1	1		1						1	1	1
	CO4	**TOTAL**	7	7	5	4	0	7	0	0	0	0	0	5	7	4
1	CO5	Governors Introduction	1	1				1							1	
2	CO5	Watt, Porter and Proell Governors	1	1	1	1		1						1	1	
3	CO5	Spring Loaded Governors	1	1	1	1		1						1	1	
4	CO5	Hartnell & Hartung Governors	1	1	1	1		1						1	1	
5	CO5	Problems on centrifugal governors	1	1	1	1								1	1	
6	CO5	Problems on Spring loaded Governors	1	1	1	1		1						1	1	
7	CO5	Charecteristics of Governors	1	1	1	1		1						1	1	
	CO5	**TOTAL**	7	7	6	6	0	6	0	0	0	0	0	6	7	0

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Instructions: Enter the course inform... in row ... Enter the blooms level (1, 2, ..5) of the question in row 10. Enter Max ma... Five assignments in row 9. Enter the blooms level (1, 2, ..5) of the question in row 10. Enter the roll numbers and marks of each student against each question in the subsequent rows. If a particular row 11. (sub)question is not used leave the entire column blank.

SRI VENKATESWARA COLLEGE OF ENGINEERING :: TIRUPATI

Department of Mechancal Engineering

MID EXAM MARKS ANALYSIS SHEET

	Academic Year :	20 - 21					Class Strength:		138											Subject Code & Title:				ME20APC401,DOM				
	Class/Semester:	II - II																		Course Instructor:				Dr. K. RENUGADEVI				
	Tool	Test 1												Test 2												Assigment				
	Q. No.	1a	1b	2a	2b	3a	3b	4a	4b	5a	5b	6a	6b	1a	1b	2a	2b	3a	3b	4a	4b	5a	5b	6a	6b	1	2	3	4	5
	CO	1	1	2	2	2	2	1	1	2	2	2	2	5	5	5	5	3	3	3	3	4	4	4	4	1	2	5	3	4
S.No	Max. Marks / Roll Number	10		10		10		10		10		10		10		10		10		10		10				10	10	10	10	10
1	20BF1A0301	5		5		8						7				9		9				10				9	10	10	9	9
2	20BF1A0302	10				8										10		10				9				9	10	10	9	10
3	20BF1A0303	5						5		9						10		7						10		9	8	9	8	10
4	20BF1A0304	10				8								1				0								10	10	10	9	9
5	20BF1A0305					5										2						5				10	10	10	10	10
6	20BF1A0306	3				2				1						9		8								9	10	8	8	9
7	20BF1A0307	10				9						9				10		10				10				10	10	10	10	10
8	20BF1A0308			5		8		1		1								10				10				8	7	8	7	8
9	20BF1A0309	8				6		4		3						10		10		10		10				8.5	9	10	10	10
10	20BF1A0310	10				10				9						10				10		10				10	10	10	10	10
11	20BF1A0311					10										10		7				10				9	9	10	9	9
12	20BF1A0312	10				8						10				10		9				10				10	10	10	10	8
13	20BF1A0313	10				10						10				10		10				10				9	10	10	10	10
14	20BF1A0314	10						9		10						10		10						10		10	10	10	10	10
15	20BF1A0315	3				3				3		1														10	10	10	10	10
16	20BF1A0316	5				5		2								10		10				4				9	8	9	8	8
17	20BF1A0317	0										0				9		5						2		9	9	9	9	10
18	20BF1A0318	4						3								9						5				9	9	9	10	10
19	20BF1A0319	10				9				10						10		10						10		10	10	9	9	9
20	20BF1A0320	8				6				6		7				10		10				10				9	10	9	10	10
21	20BF1A0321	0				0								10										2		7	8	8	8	7
22	20BF1A0322	5				10										9		10						10		10	10	9	9	9
23	20BF1A0323	9				9										9		5		0						9	9	10	10	10
24	20BF1A0324	8				8				5						10		10				10				9	10	10	10	10

	Q. No.	1a	1b	2a	2b	3a	3b	4a	4b	5a	5b	6a	6b	1a	1b	2a	2b	3a	3b	4a	4b	5a	5b	6a	6b	1	2	3	4	5
	CO	1	1	2	2	2	2	1	1	2	2	2	2	5	5	5	5	3	3	3	3	4	4	4	4	1	2	5	3	4
S.No	Max. Marks / Roll Number	10		10		10		10		10		10		10		10		10		10		10				10	10	10	10	10
25	20BF1A0325			1		0						2				10						5				8	7	8	8	8
26	20BF1A0326	3		0		3		0		3																10	10	10	10	10
27	20BF1A0327									2		2				5		0						0		10	10	10	10	10
28	20BF1A0328	10				10				10						10		10				10				10	10	10	10	10
29	20BF1A0329	4				8				0		6				9		10						10		9	9	10	9	10
30	20BF1A0330	10				10				10						10		9				10				9	9	10	9	10
31	20BF1A0331	4				2		3								10		10								8	7	8	9	9
32	20BF1A0332	8				5						9				10		9				10				8.5	10	10	10	10
33	20BF1A0333	1				1						1				10		1				10				8	7	8	9	9
34	20BF1A0334	8				10						5				10		10				10				10	10	10	9	9
35	20BF1A0335	10				10								7				10				5				9	9	10	10	10
36	20BF1A0336	10				7				8				10				10		0		10				8	8	9	7	7
37	20BF1A0337	9				8				4						10		10				10				10	10	10	10	10
38	20BF1A0338	0				0		0		2						5						2				9	8	10	9	10
39	20BF1A0339	5								7						10		3		3						8	9	9	10	10
40	20BF1A0340	0				0										10		10								8	7	9	9	8
41	20BF1A0341	2						0				2				10		7				3				10	9	9	9	9
42	20BF1A0342	10				7				10						10		10						5		10	10	10	10	10
43	20BF1A0343	5						3												8						10	10	10	10	10
44	20BF1A0344	10				10						9				8		10						10		10	10	10	10	10
45	20BF1A0345	6						4				0				8		8						7		9	8	7	9	8
46	20BF1A0346			2		10										10		10				10				8	8	7	8	7
47	20BF1A0347	6						4				2				6		4						2		10	10	10	10	10
48	20BF1A0348			3		6								8				10						8		9	9	10	10	10
49	20BF1A0350	10				10						9				10		10						10		10	9	9	10	10
50	20BF1A0351	10												5												8	9	10	9	10
51	20BF1A0352	5				2										7		10						9		10	9	10	10	10
52	20BF1A0353	10				10						2				7		10				10				10	10	10	10	10
53	20BF1A0354			5		5										10		10				3				8.5	9	10	10	10
54	20BF1A0355	10						7		9						10		8						10		9	9	9	10	10
55	20BF1A0356			5								2				10				10				2		9	9	9	10	10
56	20BF1A0357	10				4				9		9				10		10				10				8	8	9	9	9
57	20BF1A0358	10				10				9						10		9				10				10	10	10	10	10
58	20BF1A0359	10				10										10		10						10		9	9	10	10	10
59	20BF1A0360	10				2										7		5						7		9	8	9	8	10

S.No	Q. No. / CO / Max. Marks / Roll Number	1a	1b	2a	2b	3a	3b	4a	4b	5a	5b	6a	6b	1a	1b	2a	2b	3a	3b	4a	4b	5a	5b	6a	6b					
	CO	1	1	2	2	2		1	1	2	2	2	2	5	5	5	5		3	3	3	4	4	4	4	1				
	Max. Marks	10		10		10		10		10		10		10		10		10		10		10				10	10	10		
95	20BF1A0391													8				7								8	7	8	7	6
96	20BF1A0392	9						9		7						10		10				10				10	10	10	10	10
97	20BF1A0393	10				10				2						9		7				10				10	8	7	8	7
98	20BF1A0394	7				9						10				8		10				10				9	10	10	10	10
99	20BF1A0395	2		2						2				8				10						8		8	8	9	10	10
100	20BF1A0396	10				9										10				10		10				7	7	7	8	8
101	20BF1A0397	8				7										10		10				10				7	7	7	8	7
102	20BF1A0398	4				2				2						10		10				6				10	10	10	10	10
103	20BF1A0399					5				3						7		4								7	7	8	7	7
104	20BF1A03A0	4						2								9		7								8	7	6	7	8
105	20BF1A03A1	10				10				6						10		9				10				9	10	8	8	8
106	20BF1A03A2	9				7				5						7				9		10				10	10	10	9	9
107	20BF1A03A3	10				10										10		10				10				9	10	10	10	10
108	20BF1A03A4	9				7										10				10		5				7	8	7	6	7
109	20BF1A03A5													7		6		10				10				6	6	7	8	9
110	20BF1A03A6	4								6						7		10				10				9	10	9	9	10
111	20BF1A03A7	2								10						10		8								10	9	9	9	9
112	20BF1A03A8							2		3				4										4		6	6	7	8	8.5
113	20BF1A03A9	10						7								10		10		10		10				9	9	10	10	10
114	20BF1A03B0	10				3										10		8				10				9	9	10	10	10
115	20BF1A03B1	10				8				8						10		10						6		9	10	9	9	10
116	20BF1A03B2	10												5						10		5				10	10	10	10	10
117	20BF1A03B3	10				10				2				7				10				4				7	7	6	8	8
118	20BF1A03B4							6								10		10								6	6	7	8	8.5
119	20BF1A03B5	10						8								10		10				10				10	8	7	8	7
120	20BF1A03B6	8						5		2		0		5		7		10				10				10	10	10	10	10
121	20BF1A03B7	8						8		2				7						10		10				10	10	10	10	10
122	20BF1A03B8	9				4				2						10		9				10				10	10	10	10	10
123	20BF1A03B9															4		3						5		7	8	7	7	8
124	20BF1A03C0	3				0								7				1				10				6	9	7	8	7
125	20BF1A03C1	10						6				8				10		10						10		10	10	10	10	10
126	20BF1A03C2	9				10				9						10		10				10				10	10	10	10	10
127	20BF1A03C3			2				2				2		5				2								10	10	10	10	10
128	20BF1A03C4	7				4				3						8		10				10				9	10	10	10	10
129	20BF1A03C5					2										8				10		10				10	10	10	10	10

	Q. No.	1a	1b	2a	2b	3a		4a	4b	5a	5b	6a	6b	1a	1b	2a	2b		3b	4a	4b	5a	5b	6a						
	CO	1	1	2	2	2		1	1	2	2	2	2	5	5	5	5		3	3	3	4	4	4	4					
S.No	Max. Marks / Roll Number	10		10		10		10		10		10		10		10		10		10		10								
130	20BF1A03C6	9				9				2						10		10				10				10	10	10	10	10
131	21BF5A0307	9				8										8		10				10		6		7	8	9	8	7
132	21BF5A0308					6										7		10				10				10	9	10	9	10
133	21BF5A0309	10		5		9				10				4		7		10				10				10	10	10	10	10
134	21BF5A0310	6		6				6		5				7		9		9		10		10				10	10	10	10	10
135	21BF5A0311	9						3		4						8		8						8		9	10	9	9	8.5
136	21BF5A0312	4				7				6						6		10				10				9	10	9	10	10
137	21BF5A0313	5		4		10				10						10		10				10				10	10	10	10	10
138	21BF5A0314	9				10				10		10				10		10				10				10	10	10	10	10
	Attempts	118	0	15	0	98	0	33	0	57	0	35	0	22	0	116	0	116	0	18	0	84	0	33	0	138	138	138	138	138
	Scores above 70%	79	0	2	0	63	0	9	0	27	0	18	0	13	0	108	0	99	0	13	0	67	0	33	0	134	135	136	136	136
	attainment	0.6695		0.13		0.64		0.27		0.47		0.51		0.59		0.93		0.85		0.72		0.8		1		0.97	0.98	0.99	0.99	0.99

NOTE: NA- NOT ATTEMPTED; A-ABSENT

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KARAKAMBADI ROAD, TIRUPATI - 517 507

Instructions: Enter the CO mapped to each question in the final exam in row 9. Enter the blooms level (1, 2, ..5) of the questions in row 10. In final exam each question carries 10 marks and you may leave row 11 unchanged. Enter the roll numbers andmarks of each student against each question in the subsequent rows. If a particular (sub)question is not attempted by the student, leave the cell blank.

SRI VENKATESWARA COLLEGE OF ENGINEERING :: TIRUPATI

Department of Mechancal Engineering

FINAL EXAM MARKS ANALYSIS SHEET

	Academic Year :	20-21				Class Strength:					138																		
	Class/Semester:	II-II																											
	Tool	Short Answer Questions					External Evaluator																						
	Q. No.	1a	1b	1c	1d	1e	2a	2b	3a	3b	4a	4b	5a	5b	6a	6b	7a	7b	8a	8b	9a	9b	10a	10b	11a	11b			
	CO	1	2	5	3	4	2	2	2	2	1	1	2	2	5	5	5	5	3	3	3	3	4	4	4	4			
S.No	Max. Marks / Bundle Numb...	2	2	2	2	2	10	0	5	5	5	5	10	0	10	0	5	5	10	0	5	5	10	0	10	0			
1	22217	0	0	0	0	0	4		4		2				2	1			4						2				
2	22217	2	2	2	1	0	7		5				7		5	4	8		4				10		8				
3	22217	2	2	2	2	2	8		2		2		8		5	4			2		6		8						
4	22217	0	0	0	0	0	8				4		6		5	2			6				10						
5	22217	2	2	2	2	1	10						8		4	4	8		8		4				10				
6	22217	2	2	2	2	2	10		10		6		8		5	4	5		10		5		10		10				
7	22217	2	2	2	2	1	10		10				10				10		10						10				
8	22217	2	2	2	1	2	10						8				8		6		6		10		6				
9	22217	2	2	2	2	1	10		10				10				10		10				10		10				
10	22217	2	2	2	0	1			8		5		10		5	4	8		10				5		10				
11	22217	2	0	0	0	0	4		8		4		7		1	1	7		9		2		5		6				
12	22217	2	0	1	1	1			10		4						8		6				10						
13	22217	2	2	2	2	1	10		6				6		5	4			8		10				6				
14	22217	2	0	0	0	1	5		4		2		6		5	4					5		8		5				
15	22217	2	1	0	1	0	8						7		4	3	5		5		4		10		4				
16	22217	1	0	0	0	0	5				5		5				4		4				8						
17	22217	2	2	0	1	0	10		10				8				10		10				10						
18	22217	2	2	2	2	1	10		10				8				10		10						8				
19	22216	2	2	0	0	0			8				5		5	1			2				10						
20	22216	2	2	2	1	1	8						10				8		6				10						
21	22216	0	0	0	1	1			2				2		2	1			2				10		1				
22	22216	2	1	1	1	0	8						10		0				5						2				
23	22216	0	1			1	6						10				8		6				10						
24	22216	2	1	1	1	0			6				10				8		8						8				
25	22216	2	2	1	0	0	8		4				10				5		8				8						
26	22216	2	1	1					8		6				5	2			4						2				
27	22216								5						1	1			2						2				
28	22216	2	2	2	1	2	8						6		5	4	6				4		10						
29	22216	2	1	2	1	2	8						4		5	2	10		5				10						
30	22216	2	1	2	0	1	10		6				10		5	4	10		6		5		10						
31	22216	0	0	0	0				2		4				2	2			2		2		4		4				
32	22216	2	0	0	0	0	6						10				10				7		8		1				
33	22216	2	1	0	0	0	10				8		5	3					6				8						
34	22216	2	0	0	0	0	10						7				8		5				8						
35	22216	0	0	0	0				4				4				2		2				2						
36	22216	2	0	0	0	0	2				2		8		4	1			2		2				2				
37	22216	2	0		0	1	10		4				10				10		4				8						
38	22216	2	0	0	0	0	10		4				6				4		4				8						
39	22216	2	2	2	2	1	10						10				8				8		10		10				
40	22216	2	0	0	1	1	7						1		5	2			6				6						
41	22216	2	0	0	1	0	6				5				5	2	6		6		5		10		5				
42	22216	2	0	1	0	0	5						7		5	2			8						7				
43	22216	2	2	2	1	2			6				10								6		10						
44	22216	2	2	0			10				2				2	2			4						8				
45	22216	2	2	2	2	2	10				8		10		5	3	2		8		7		10						
46	22216	2	2	0	0	0	2				4		5		5	2			5				8						
47	22216						8				4						4		6		0				8				
48	22216	2	2	1	1	0	8				5				4	2			5						5				
49	22216	2	2	2	1	0	10				8		7		5	2					5		10						
50	22216	2	1	1	0	1							2		1				5						5				
51	22216	2	0	0			10						10		5				10						5				
52	22216	2					4				2				5	4	4		2		2		5						
53	22216	2	2	0	0	0	10						8		5	0			4				4						
54	22216	1	0	0	0	0	4						6		5	4			6		4		5		5				
55	22216	2	2	2	2	1	10						10		5	2			5				7						
56	22216	1	1	1	1	0	0		2				4		4	2	0		1				5		1				
57	22216	0	2	0	0	0	10				4		6				8		8				6						

S.No	Q. No.	1a	1b	1c	1d	1e	2a	2b	3a	3b	4a	4b	5a	5b	6a	6b	7a	7b	8a	8b	8c	9b	10a	10b	10c
	CO	1	2	5	3	4	2		2	2	1	1	2	2	5	5	5	5	3	3	3	3	4	4	4
	Max. Marks	2	2	2	2	2	10	0	5	5	5	5	10	0	10	0	5	5	10	0	5	5	10	0	10
	Bundle Number																								
58	22216	1	2	0	0	1	10						8				10		8				8		
59	22214	2			2	1	4		8				6		4				6						5
60	22214	2	2	1	1	2	9						8		5	5			8		4		8		
61	22214	0	0	1	1	1	10						8		8		9		7						7
62	22214	1	2	1	1	1	7						7				5		5						5
63	22214	0	2				9						8		6				5						2
64	22214	0			1	1	8						8		4				6						5
65	22214	2	2	2	2	2	9						10		10		9		10		9		10		10
66	22214	2	2	2	1	1			4				5		4				5				7		
67	22214	1	2	1	1	1	9		10				9				8		8		7		10		
68	22214	2	2	2	1	1	7				7		9				8		10		7		10		
69	22214						7				5						7		7						5
70	22214	2	2	2	2	2	8		10				9		10		9		10				10		
71	22214	2	2	2	2	2			9				9				9		9				10		
72	22214	2	2	2	2	1	10		7				10		8				8				10		9
73	22214	0							0		5						2		2						2
74	22214	1	1	0	0	0	8				5								2						
75	22214	0	0	0	0	1	8		4				7				7		5						4
76	22214	1	1	1	1	0	4						4				4		4				6		
77	22214	1	2	2	2	2	10						10				10		9				10		
78	22214	2	2	2	2	2	7						7				6		7		7		8		
79	22214	0	1	0	0	1	7						5						5						
80	22214	2	2	2	2	2	10						8				8		8						9
81	22214	0	0	0	0	0			2										4		2				
82	22214	2	2	2	2	2			10				9				10		10		9		10		
83	22214	2	2	1	1	1	6		5		5						4		5		4		5		
84	22214	0			0		5				0		3				2								
85	22214								3				8				2		3						3
86	22214	2	2	1	1	2	9						8		8		8		8		5		10		9
87	22214	2	2	1	2	1	9						8		10				4		6				8
88	22214	2	2	2	2	2	8		7				9		6		6		5		6				10
89	22214	0	1	1	0	1	9						9				6		8				8		
90	22214	1	2	2	2	1	8						9		7				7				10		
91	22214	2	2	2	2	2	8						2				2		4						3
92	22214	2	2	2	2	2			9				8		10				10				10		
93	22214	0	0	0	1	1	10						9		8				9				8		
94	22214	1	1	1	1	1	8		7				7		7		9		9		7		8		8
95	22214	2	2	2	2	2	10		9		6		7		8		8		8		8		10		
96	22214	2	2	2	2	2			7				2				7		7						8
97	22214	2	2			2			3				5		5				4						7
98	22214	0	1	1	0	0			7				7		2						2				7
99	22215	2	0	0	1	0	10						8		5	2			10				7		
100	22215	2	2	2	1	1	10		10				10				10		8				8		10
101	22215	2	0	0	0	0			6				7		1	1			6						8
102	22215	2	2	2	2	1	8		10				8				10		10				8		10
103	22215	2	2	0	1	1	6						5				6		5						5
104	22215	2	2	2	1	2	8						10				8		10				6		
105	22215	2	0	0	0	1	4		1				5		0		4		4						
106	22215	2	2	0	1	0	10		6				10				10		10				10		10
107	22215	2		0	1		10				2				4	1			10		0		8		5
108	22215	2	0	0	0	1	10						8				10		8				10		
109	22215	2	2	2	1	1			10		1				4	2			10				1		
110	22215	2	2	2	1	2	10						10				10		10				10		
111	22215	2	2	2	1	2	10						10				10		10		10				
112	22215	0	0	0			2		2				6		6		10		2						7
113	22215	1	1		0				10				10				6		8						10
114	22215	2	2	2	1	1	9						10		5	1	10		8				10		
115	22215	2	2	2	1	2	9		10				10				8		8				10		
116	22215	2	2	0	0	2	7						10				8		8				0		5
117	22215	2	0	1	0	0	4						5		0	0	5		6						5
118	22215	0	0	0	0	0			10		1				1	1			5						6
119	22215	2	2	0	1	0	10						10		5	5			10				10		
120	22215			0	0	0	5		1				4		2	3	2		4				6		
121	22215	2	2	2	0	0			2				10		5	3			4						10
122	22215	0		0	0						1		4		5	2	4		8		1		8		
123	22215	2	2	2	2	2			8		5				5	5					4		10		

Q No.	1a	1b	1c	1d	1e	2a	2b	3a	3b	4a	4b	5a	5b	6a	6b	7a	7b	8a	8b	8c	9b	10a	10b	11a	11b
CO	1	2	5	3	4	2	2	2	2	1	1	2	2	5	5	5	5	3	3	3	3	4	4	4	4
Max. Marks	2	2	2	2	2	10	0	5	5	5	5	10	0	10	0	5	5	10	0	5	5	10	0	10	0
S.No / Bundle Number																									
124	22215	1	1	1	1	1	8				4					5		3				10			
125	22215	2	2	2	2	2	10		10				10				8		10				10		10	
126	22215	2	2	2	1	2	10		10				10				7		8				10			
127	22215	2	2	2	0	1	8								5		5				5		10			
128	22215	2	2	1	1	0	8						8		5	2	10		10		4		10			
129	22215	2			0	0	7		2				7				4		7				10			
130	22215	2	2	2	1	0	3		8				8		5	4	6		8		4				7	
131	22215	0	0	0	0	0			4		2						2				0		2		2	
132	22215	2	2	2	1	2	10						10		5	3	8				8		10			
133	22215	2	2	2	1	2	8		4		5				5	5					6		5			
134	22215	2	2	1	0	0	10						10				10		10				10			
135	22215	2	2	2	1	0	8						2				8		8						10	
136	22215	1	1		1	1	8		4		6		10		5	5			5		8		10			
137	22215	2	2	2	0	1	8						10				10		10				10			
138	22215	2	2	0	1	0	10						2		5	2									8	
139																										
140																										

Attempts	133	125	122	125	121	109	0	65	0	38	0	115	1	76	52	87	0	124	0	46	0	90	0	68	0
Scores above 60%	97	75	53	29	32	91	0	54	0	26	0	91	1	14	52	78	0	76	0	36	0	77	0	38	0
attainment	0.73	0.6	0.43	0.23	0.26	0.83		0.83		0.68		0.79	1	0.18	1	0.9		0.61		0.78		0.86		0.56	

NOTE: NA- NOT ATTEMPTED; A-ABSEN

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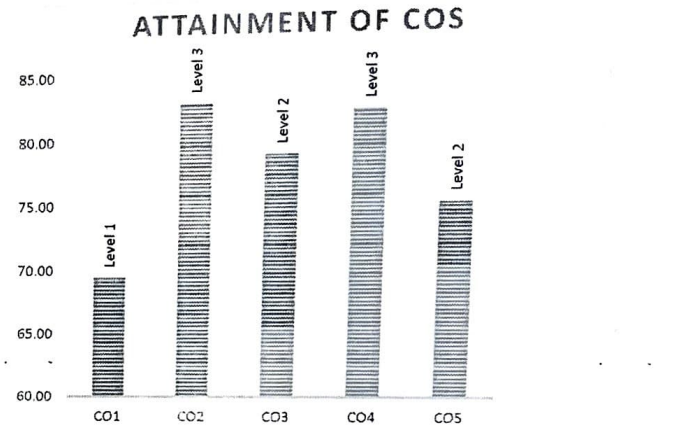
Course Outcome	Bloom's Level of the CO	Continous Internal Evaluation (40)					Semester End (60)	Final Attainment (100)	
		First Mid (30)		Second Mid (30)	Assignment (10)	Average of CIE	Final Exam		
		Avg. Blooms Level	Attainement	Attainment	Attainment	Attainment	Attainment	Attainment	Attainment Level
CO1	2	3	0.48		0.98	0.58	0.71	0.66	1
CO2	3	3	0.45		0.98	0.56	0.82	0.72	2
CO3	3			0.79	0.99	0.83	0.55	0.67	1
CO4	4			0.9	0.99	0.92	0.56	0.71	2
CO5	3			0.77	0.99	0.82	0.63	0.71	2



IA TARGET %	TARGET LEVEL
60% - 70%	LEVEL 1
70% - 80%	LEVEL 2
80% - 100%	LEVEL 3

	CO1	CO2	CO3	CO4	CO5
Total Number of Students ATTEMPTED	151	205	134	117	138
Total Number of Students above target level in Mid-Term	88	110	112	100	121
MID-TERM TEST CO ATTAINMNET	0.58	0.56	0.83	0.92	0.82
Total Number of Students ATTEMPTED	138	138	138	138	138
Total Number of Students above target level in Assignment	134	135	136	136	136
Assignmnet CO ATTAINMNET	0.97	0.98	0.99	0.99	0.99
CIE CO ATTAINMNET	0.58	1.00	0.90	1.00	0.77
Total Number of Students ATTEMPTED	171	415	295	279	337
Total Number of Students above target level	123	312	141	147	197
SEE CO ATTAINMNET	0.71	0.69	0.69	0.69	0.69
CO attainmnet (Direct)	0.66	0.81	0.77	0.81	0.72
Course exit survey	0.84	0.89	0.85	0.86	0.87
Overall CO Attainment	69.44	82.92	78.92	82.32	75.16
CO ATTAINMENT LEVEL	1	3	2	3	2

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Instruction: Enter the level at which each CO Maps to the POs and PSOs in the first table. The Course Mapping and the entire second table will be auto generated

CO - PO - PSO Mapping

Outcome		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	Understand the basic principles involved in friction, Precession, Balancing & Vibrations	3	3	2			3							3		
CO2	Determine Power Loss and Power Transmitted Due to Friction in Various Applications	3	3	3			3	3					3	3	3	
CO3	Apply Balancing Principles for Various Rotating and Reciprocating Masses.	3	3	3			3	3					3	3	3	
CO4	Analyze the Magnitude of Vibration and Isolate Vibration of Dynamic Systems.	3	3	3			3	3					3	3	3	
CO5	Determine the dimensions of Governors for Speed Control in mechanical devices.	3	3	3	3		3						3	3		
Course Mapping		3	3	2.8	3		3	3					3	3	3	

Note: 66% of the students are able to attain the minimum expected level towards PO1

Contribution towards PO Attainment updated formula

Outcome	CO Attainmnet	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	0.66	0.66	0.66	0.44			0.66							0.66		
CO2	0.72	0.72	0.72	0.72			0.72	0.72					0.72	0.72	0.72	
CO3	0.67	0.67	0.67	0.67			0.67	0.67					0.67	0.67	0.67	
CO4	0.71	0.71	0.71	0.71			0.71	0.71					0.71	0.71	0.71	
CO5	0.71	0.71	0.71	0.71	0.71		0.71						0.71	0.71		
Course Contribution		0.7	0.7	0.65	0.71		0.7	0.7					0.71	0.7	0.7	

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SRI VENKATESWARA COLLEGE OF ENGINEERING
Karakambadi Road, Opposite LIC Training Centre, Tirupati – 517 507.
Department of Mechanical Engineering

Course Name: Finite Element Methods

Course Code: ME20APC601
Year/Semester III/II
Credits: 3
Batch: MECHANICAL

0	C321.1	Distinguish different numerical methods involved in Finite Element Analysis (L3)
	C322.2	Apply equations in finite element methods for 1D, 2D and 3D problems. (L3)
	C323.3	Apply shape functions in finite element formulations and use linear, quadratic, and cubic shape functions for interpolation (L3)
	C324.4	Formulate and solve basic problems in heat transfer, solid mechanics and fluid mechanics. (L3)
	C325.5	Analyse beams and shafts using finite element analysis. (L4)

0
Course Name: Finite Element Methods **Course Code ME20APC601** **Year of Study:** III/II

Course Outcomes	POs & PSOs mapped	Periods of instruction
C321.1	PO1,PO2,PO3, PO9,PO12,PSO1	13
C322.2	PO1,PO2,PO3, PO9,PO12,PSO1	18
C323.3	PO1,PO2,PO3, PO9,PO12,PSO1	14
C324.4	PO1,PO2,PO3, PO9,PO12,PSO1	10
C325.5	PO1,PO2,PO3, PO9,PO12,PSO1	9

C226 is the Second course in I year II semester and '.1' to '.6' are the outcomes of this course.

CO – PO/PSO matrix for the course

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C321.1	3	1	3						2			2	3	1
C322.2	3	3	3	1					2			1	3	
C323.3	3	3	3	1					2			1	3	
C324.4	3	3	3	1					2			1	3	
C325.5	3	3	3	2					2			2	3	

C226 is the Second course in I year II semester and '.1' to '.6' are the outcomes of this course.

Note: Enter correlation levels 1, 2 or 3 as defined below:
1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High),
If there is no correlation, put "-".

Signature of the Faculty

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MECHANICAL ENGINEERING
SV COLLEGE OF ENGINEERING
KARAKAMBADI ROAD, TIRUPATHI - 517 507

SRI VENKATESWARA COLLEGE OF ENGINEERING
Karakambadi Road, Opposite LIC Training Centre, Tirupati – 517 507.
Department of Electrical & Electronics Engineering

Procedure for establishing the correlation between the courses and POs& PSOs:
A course is related to POs and PSOs, by establishing a relation between the Course Outcomes of the course and the POs/PSOs.
The Course Outcomes defined for Course is taken as :

Course	Periods Engaged	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C321.1	13	13	3	7	0	0	0	0	0	6	0	0	6	13	1
C322.2	18	18	12	15	4	0	0	0	0	8	0	0	4	13	0
C323.3	14	14	10	10	4	0	0	0	0	4	0	0	4	14	0
C324.4	10	10	6	5	0	0	0	0	0	6	0	0	3	10	2
C325.5	9	9	9	7	0	0	0	0	0	0	0	0	3	9	0
Total	64	64	40	44	8	0	0	0	0	24	0	0	20	59	3
% PO		100	63	69	13	0	0	0	0	38	0	0	31	92	5
PO Level		3	3	3	1					2			2	3	

More than one PO could be covered in a lecture, but each PO is given independent weightage for periods devoted

The target level of each PO is determined from this percentage as
Level 1: 5 to 25%; Level 2: 25 to <50%; Level 3: >= 50%

CO and Corresponding Target levels of POs
From the row , it is seen that the CO covers POs and PSOs
%

Course	Periods Engaged	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C321.1	13	100	23.1	53.8	0	0	0	0	0	46.2	0	0	46.15	100	7.692
C322.2	18	100	66.7	83.3	22	0	0	0	0	44.4	0	0	22.22	72.22	0
C323.3	14	100	71.4	71.4	29	0	0	0	0	28.6	0	0	28.57	100	0
C324.4	10	100	60	50	0	0	0	0	0	60	0	0	30	100	20
C325.5	9	100	100	77.8	0	0	0	0	0	0	0	0	33.33	100	0

CO – PO/PSO matrix for the course

Course	Periods Engaged	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C321.1	13	3	1	3						2			2	3	1
C322.2	18	3	3	3	1					2			1	3	
C323.3	14	3	3	3	1					2			1	3	
C324.4	10	3	3	3	1					2			1	3	
C325.5	9	3	3	3	2					2			2	3	

C226 is the Second course in I year II semester and '.1' to '.6' are the outcomes of this course.

Note: Enter correlation levels 1, 2 or 3 as defined below:
1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High),
If there is no correlation, put "-".

Signature of the Faculty

HOD

HEAD OF THE DEPARTMENT
MECHANICAL ENGINEERING
SV COLLEGE OF ENGINEERING
KARAKAMBADI ROAD, TIRUPATHI - 517 507

Instructions: Enter the CO mapped to each question in the final exam in row 8. Enter the blooms level (L1, L2, L3) of the question in row 10. In final exam each question carries 10 marks and you may leave row 11 unchecked. Enter the roll numbers and marks of each student against each question on the subsequent rows. If a particular (sub)question is not attempted by the student, leave the cell blank.

SRI VENKATESWARA COLLEGE OF ENGINEERING :: TIRUPATI

Department of Mechanical Engineering

FINAL EXAM MARKS ANALYSIS SHEET

Academic Year : 2022-2023 | Class Strength: 138

Class/Semester: III/II

		Tool	Short Answer Questions					External Evaluator																							
		CO	CO1	CO2	CO3	CO4	CO5	1a	1b	2a	2b	3a	3b	4a	4b	5a	5b	6a	6b	7a	7b	8a	8b	9a	9b	10a	10b	11a	11b	12a	12b
		Blooms Level	L2	L2	L3	L3	L3	L1	L1	L1	L1	L2	L2	L2	L2	L3	L3	L3	L3	L1	L1	L2	L2	L2	L2	L3	L3	L3	L3	L3	L3
		Max. Marks	2	2	3	3	3	3	3	3	3	5	5	5	5	5	5	5	5	10	10	10	10	10	10	10	10	10	10	10	10
S.No		Roll Numbers																													
1		31108	2	1	2	1		3				0		3						10		8				10					
2		31108	1	2	2	2				6		9		10						10		8				7					
3		31108	2	2	2	1	1	10				10								10				10		9					
4		31108	1	1	1	2	1			8		10								10				10		8					
5		31108						4						5						2				5		9					
6		31108	1	2	1	1	1	3				10								8		8				9		10			
7		31108	2	2	2	2	2	9		9		10								10		8		10		9		10			
8		31108	1	1	1	2		2				6				9						7		9		3		10			
9		31108	2	1	2	2	1	10				10				4						9		10		8		10			
10		31108	2	1	2	2	1	2		9		10				8						4		10		10					
11		31108	1	1	2							10								10				10		10					
12		31108	1	2	2	2	1	2		8		10								10				10		10					
13		31108	2	2	2	2		10				10								10		10				10					
14		31108	2	2	2	2	1	10				10				10								10		10					
15		31108	1	2				8				8				9										10					
16		31108	2	2						6		8				6				10				10		10					
17		31108	2	1	2	2	1			4		6								6		6				10					
18		31108	1		2		1			6		6								10		9		10		10					
19		31108	2	2	2	2	2	10				10								9				10		10					
20		31108	1	1	2	1	1			4		10								2				6		10					
21		31108	1	1	2	2	1					4								10				10		10					
22		31108	2	1	2	2	1	9				10								5		4				9					
23		31108	1	1	1	2	1			3		6								10		10		10		10					
24		31108	1	2	2	2	1			8		10												9		6					
25		31108	1	2	1	1	1	3		4		5		3		4								4		6					
26		31108	1			1		3		3		3		4		3								4							
27		31108						3		2		4		5						4						10					
28		31108	2	2	2	2	1	9						10						9		10						10			
29		31108	1	2	1	2		10						10		5				9		8									
30		31108	1	1	2	1	1	9				10				2				7				10		10					
31		31108	1	1	2	2	1			5		10								10		10				10					
32		31108	2	2	2	2	1	10				7								10		10		10		10					
33		31108	1	2	2	1		3				10		4						10				10		10					
34		31108	1	2	2	2						10								10		10				10					
35		31108	1	2	2	2	1	6				10		9		9				10		9		10		10		10			
36		31108	2	2	2	2	1	10				10								9				10		10					
37		31108	1	2	2	2	1	10				10				3						10		10		10		10			
38		31108	1	1	2	2	1.			6		10								5				6		10					
39		31108	1	2	2	1				6		10								5		6				3					
40		31108	1	1	2	1		4				8								10				8		8					
41		31109	2	0	0	0	0			7										10		7				7					
42		31109	2	2	0	1	0	8		3		10								6		7				8					
43		31109	1	2	1	1	0			6				6						9				8		10					
44		31109	2	2	0	1	0	4						7						10		6		6		7					
45		31109	1	2	1	1		4				10								7				7		8					
46		31109	1	0	0	1				5		10										2						5			
47		31109	1	2	1	1	0	4		5		8				9						6						5			
48		31109	1	0	0	1	0			2		3		3		3												3			
49		31109	1	0	0	1	0	2				8				6				7		6		6		9					
50		31109	1	2	2	1	0					10								7		7		7		8					
51		31109	1	0	0	0		5				6		8						8				9		7		3			
52		31109	0	0	1	1	0	1						4						7				9		7					
53		31109	2	2	2	1						1		8						7				8		8					
54		31109	1	0	2									3						6				8		10					
55		31109	2	1	2	2	1			10				9						8				9		9					
56		31109	2	1	2	1	0	2				5		3						9				8		7					
57		31109	0	0	2	0	0					5				4						6		6				4			
58		31109	0	1	0	1	0			6				6						6				7		8					
59		31109	1	0	0	0	1			4		4								5		3				3					
60		31109	2	2	2	1	0			4		8								9		7				7					
61		31109	1	0	1	0	0			2				1						2		2				2					
62		31109	1	1	1	0	0	6				4								8		5				6					
63		31109	2	1	0	1	0			8		10								10		8		9		10					
64		31109	2	2	2	1	1	3		6		9								9		8				10					

29	20BF1A0329	10						2				7		7				7				9				10	10	10	10	10
30	20BF1A0330	10														4		10				9				10	10	10	10	10
31	20BF1A0331			8				10				10						10						10		10	10	10	10	10
32	20BF1A0332	4						10				6		9				10				10				10	10	10	10	10
33	20BF1A0333			6						3				3				10						10		10	10	10	10	10
34	20BF1A0334			7				10				8		10				10						10		10	10	10	10	10
35	20BF1A0335			8				10				10		10				6						10		10	10	10	10	10
36	20BF1A0336	10				10		10		4						10		9						10		10	10	10	10	10
37	20BF1A0337	10						10				10		10				10						10		10	10	10	10	10
38	20BF1A0338			9		10						10				10				10				10		10	10	10	10	10
39	20BF1A0339			9						3		2		4				4		1		1				7	7	7	7	7
40	20BF1A0340	5						10								1				9				10		7	7	7	7	7
41	20BF1A0341	5				4				3				3				2						9		7	7	7	7	7
42	20BF1A0342			10				10				10				10				10				10		10	10	10	10	10
43	20BF1A0343			4				4						3										10		7	7	7	7	7
44	20BF1A0344	10						10				10				10		10						10		10	10	10	10	10
45	20BF1A0345	10						10				9				8		8						10		7	7	7	7	7
46	20BF1A0346			7				10		4				3				9						10		7	7	7	7	7
47	20BF1A0347			4				5				10		8				7								10	10	10	10	10
48	20BF1A0348			8				10				6		10				1						10		10	10	10	10	10
49	20BF1A0350	10						10				10		10				10						10		10	10	10	10	10
50	20BF1A0351			8				1		2				5				2				8				10	10	10	10	10
51	20BF1A0352							10				10		7				6						10		10	10	10	10	10
52	20BF1A0353	9						10				10		9				10						10		10	10	10	10	10
53	20BF1A0354			10				10				10		8				9						9		10	10	10	10	10
54	20BF1A0355			10		2						8		7				6				9				10	10	10	10	10
55	20BF1A0356			9		1		10										8						9		10	10	10	10	10
56	20BF1A0357	10						2		3						9				9						7	7	7	7	7
57	20BF1A0358			8				10				10		10				10						10		10	10	10	10	10
58	20BF1A0359	1				1				3				7				10						10		10	10	10	10	10
59	20BF1A0360			7				3				6		7				10						10		10	10	10	10	10
60	20BF1A0361			8		5				4				3				1				9				10	10	10	10	10
61	20BF1A0362	10						10		3						10				10		10				10	10	10	10	10
62	20BF1A0363	9										3				6				5				10		10	10	10	10	10
63	20BF1A0364	7		4						6				4				4						10		10	10	10	10	10

Instructions: Enter the course information in rows 5 and 6. Enter the CO mapped to each question in the two mid tests and Five assignments in row 9. Enter the blooms level (1, 2, ..5) of the question in row 10. Enter Max marks for each question in row 11. Enter the roll numbers and marks of each student against each question in the subsequent rows. If a particular (sub)question is not used leave the entire column blank.

SRI VENKATESWARA COLLEGE OF ENGINEERING :: TIRUPATI

Department of Mechancal Engineering

MID EXAM MARKS ANALYSIS SHEET

	Academic Year :	2022-2023						Class Strength:	138														**Subject Code & Title:**	ME20APC601 & FEM							
	Class/Semester:	III/II																					**Course Instructor:**	URU MAHESH & S.Jaya Kish							
	Tool	Test 1												Test 2												Assigment					
	Q. No.	1a	1b	2a	2b	3a	3b	4a	4b	5a	5b	6a	6b	1a	1b	2a	2b	3a	3b	4a	4b	5a	5b	6a	6b	1	2	3	4	5	
	CO	1		1		1		2		2		2		3		3		4		4		5		5		1	2	3	4	5	
S.No	**Max. Marks / Roll Number**	10		10		10		10		10		10		10		10		10		10		10		10		10	10	10	10	10	
1	20BF1A0301	2						9				9				8				9				9		10	10	10	10	10	
2	20BF1A0302							10		8						9				8				9		10	10	10	10	10	
3	20BF1A0303			8				8		3				9				6						10		10	10	10	10	10	
4	20BF1A0304			9				10		2				5				2		0						10	10	10	10	10	
5	20BF1A0305															9								9		10	10	10	10	10	
6	20BF1A0306	2						8				10				9				7				10		10	10	10	10	10	
7	20BF1A0307			10				10				10				10		10				9		10		10	10	10	10	10	
8	20BF1A0308			9				10								9				9						10	10	10	10	10	
9	20BF1A0309	10						10				10				10		10				10				10	10	10	10	10	
10	20BF1A0310	10						9				6		9				10						10		10	10	10	10	10	
11	20BF1A0311			3		8								7				3						10		10	10	10	10	10	
12	20BF1A0312	9						10				10		7				9						10		10	10	10	10	10	
13	20BF1A0313	10						10				10		7				10						10		10	10	10	10	10	
14	20BF1A0314	10						10				7		9				10						10		10	10	10	10	10	
15	20BF1A0315			7				1		3				2				10						10		10	10	10	10	10	
16	20BF1A0316	4								2		1		3				2						10		7	7	7	7	7	
17	20BF1A0317			10				10				6				3		9						9		7	7	7	7	7	
18	20BF1A0318					10						10				9								10		10	10	10	10	10	
19	20BF1A0319			10				10				10		10				10						10		10	10	10	10	10	
20	20BF1A0320	10						10				10		5				7						10		10	10	10	10	10	
21	20BF1A0321			9				5				3		3				7						10		10	10	10	10	10	
22	20BF1A0322			7				10				9		9				10						9		10	10	10	10	10	
23	20BF1A0323	4						10		5		1				9		5				9				10	10	10	10	10	
24	20BF1A0324			9				10				10				10				9				10		10	10	10	10	10	
25	20BF1A0325			5				9				3				8		3				9				10	10	10	10	10	
26	20BF1A0326			4		0		10		2				2										7		7	7	7	7	7	
27	20BF1A0327	5								2		2		2				2						6		7	7	7	7	7	
28	20BF1A0328			10				10				10		10				10				9				10	10	10	10	10	

64	21BF5A0301	10						10		10				10				9		10				10		10	10	10	10	10
65	21BF5A0302	10						10				10		10				10						10		10	10	10	10	10
66	21BF5A0303			9				10				10		3										10		7	7	7	7	7
67	21BF5A0304	10						10		10						8		9				10		10		10	10	10	10	10
68	21BF5A0305	10						10				10		7				10						10		10	10	10	10	10
69	21BF5A0306	10										10		10				10						10		10	10	10	10	10
70	20BF1A0365	6		3								2				7		9				8				7	7	7	7	7
71	20BF1A0366	7						10				4		8				8						8		3	3	3	3	3
72	20BF1A0367					10				4				7				8						9		3	3	3	3	3
73	20BF1A0368			10				10				10		10				10						10		10	10	10	10	10
74	20BF1A0369							10		8						9				8				10		9	9	9	9	9
75	20BF1A0370			6				2		2						6		3				7				7	7	7	7	7
76	20BF1A0371			7								8		9				10						10		7	8	7	8	8
77	20BF1A0372			3				10				8		10						6				10		8	8	8	8	8
78	20BF1A0373							10		2				8						8				10		9	9	9	9	9
79	20BF1A0374	4				4				5				3						8		2				9	9	9	9	9
80	20BF1A0375			7		8						3				3		4				8				9	9	9	9	9
81	20BF1A0377	10				8						5		10				8						10		8	8	8	8	8
82	20BF1A0378							9				10				6				8				10		10	10	10	10	10
83	20BF1A0379	5				8						6		8				10						10		9	9	9	9	9
84	20BF1A0380			8				10		6				10				3						10		9	9	9	9	9
85	20BF1A0381	10						10				2		10						8				10		9	9	9	9	9
86	20BF1A0382			5		8										4				8				10		9	9	9	9	9
87	20BF1A0383	5				8						8		3				10						10		8	8	8	8	8
88	20BF1A0384	6						9				10		8				10						10		9	9	9	9	9
89	20BF1A0385			6		3				3				3				3		8				10		8	8	8	8	8
90	20BF1A0386	10				10						8		10				8						10		9	9	9	9	9
91	20BF1A0387			8		8								8				10						10		10	10	10	10	10
92	20BF1A0388	8						8						8				10						10		10	10	10	10	10
93	20BF1A0389			7				5				3		10						8				10		9	9	9	9	9
94	20BF1A0390			7				9		3				8						8				10		8	8	8	8	8
95	20BF1A0391			8				5		2				3				8				8				6	6	6	6	6
96	20BF1A0392	10						8				6		10						8				10		10	10	10	10	10
97	20BF1A0393	10						10				3		8						8		8				9	9	9	9	9
98	20BF1A0394			10				10				6		8						8		6		10		9	9	9	9	9
99	20BF1A0395	8				8						6		8		6		8						8		10	10	10	10	10
100	20BF1A0396			8				8				4		10						8				10		9	9	9	9	9
101	20BF1A0397			7		7				6						10								10		3	3	3	3	3
102	20BF1A0398	8						4		3				10						3				10		9	9	9	9	9
103	20BF1A0399	3				6										8				10				10		9	9	9	9	9

104	20BF1A03A0			6		8						6				8						8				3	3	3	3	3
105	20BF1A03A1													10				10						10		8	8	8	8	8
106	20BF1A03A2	4						10				6		8						8				10		9	9	9	9	9
107	20BF1A03A3			8				10				8		10						10				10		9	9	9	9	9
108	20BF1A03A4	9										5				9		1						10		8	8	8	8	8
109	20BF1A03A5			7				10		3				10				3						10		9	9	9	9	9
110	20BF1A03A6			4		0						4		10				8						10		8	8	8	8	8
111	20BF1A03A7	6						2						9										9		10	10	10	10	10
112	20BF1A03A8			8																						10	10	10	10	10
113	20BF1A03A9	10						9				10		8		10				10		10		8		9	9	9	9	9
114	20BF1A03B0			2		10				4				8				10						10		9	9	9	9	9
115	20BF1A03B1			7				8						8				10						6		8	8	8	8	8
116	20BF1A03B2			8				8				5		8				3						10		8	8	8	8	8
117	20BF1A03B3			4				10				8		10						8				10		8	8	8	8	8
118	20BF1A03B4			6				6				6						3						10		9	9	9	9	9
119	20BF1A03B5					10						10		10				8						10		10	10	10	10	10
120	20BF1A03B6			8				8		8		6				6		8		6		8		10		10	10	10	10	10
121	20BF1A03B7			8		6				5						7		6				9				8	8	8	8	8
122	20BF1A03B8	6						5				10		10						6				10		9	9	9	9	9
123	20BF1A03B9													10				3				8				3	3	3	3	3
124	20BF1A03C0			4						9				7				7						10		8	8	8	8	8
125	20BF1A03C1	10						10		10				10				10						10		10	10	10	10	10
126	20BF1A03C2			10				9		9				10						8				10		10	10	10	10	10
127	20BF1A03C3			7		2				4				4				8				8				3	3	3	3	3
128	20BF1A03C4							8		8				8				8				10		10		10	10	10	10	10
129	20BF1A03C5			6				5				3		10				8						10		10	10	10	10	10
130	20BF1A03C6	2						9				6		8				8						10		3	3	3	3	3
131	21BF5A0307	10						10				8				10				10		10				9	9	9	9	9
132	21BF5A0308			6				10				6		8				6				8				9	9	9	10	10
133	21BF5A0309	10				10				9				10						10				10		10	10	10	10	10
134	21BF5A0310	9						10		10				8				8				9				10	10	10	10	10
135	21BF5A0311			8				8				6		10				10				10				3	3	3	3	3
136	21BF5A0312			6				6		6				6				6				8				10	10	10	10	10
137	21BF5A0313			3						10				8				8				8				9	9	9	9	9
138	21BF5A0314			8				10		10				8				10				10				10	10	10	10	10
	Attempts	57	0	71	0	30	0	95	0	46	0	81	0	98	0	38	0	95	0	39	0	35	0	104	0	138	138	138	138	138
	Scores above 70%	38	0	49	0	18	0	78	0	13	0	46	0	76	0	28	0	67	0	32	0	32	0	104	0	129	129	129	129	129
	attainment	0.7		0.7		0.6		0.8		0.3		0.6		0.8		0.7		0.7		0.8		0.9		1.0		0.9	0.9	0.9	0.9	0.9

NOTE: NA- NOT ATTEMPTED; A-ABSENT

Signatute of the Course Instructor

Program Coordinator

HEAD OF THE DEPARTMENT
MECHANICAL ENGINEERING
SV COLLEGE OF ENGINEERING
KARAKAMBADI ROAD, TIRUPATHI - 517 507

Instruction: Enter the level at which each CO Maps to the POs and PSOs in the first table. The Course Mapping and the entire second table will be auto generated

CO - PO - PSO Mapping

Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	1	3						2			2	1	
CO2	3	3	3	1					2			1	3	
CO3	3	3	3	1					2			1	3	
CO4	3	3	3	1					2			1	3	
CO5	3	3	3	2					2			2	3	
Course Mapping	3	2.6	3	1.25					2			1.4	2.6	

Contribution towards PO Attainment updated formula

Outcome	Attainmnet	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	0.67	0.673	0.224	0.673						0.449			0.449	0.224	
CO2	0.76	0.756	0.756	0.756	0.252					0.504			0.252	0.756	
CO3	0.84	0.839	0.839	0.839	0.28					0.559			0.28	0.839	
CO4	0.78	0.781	0.781	0.781	0.26					0.521			0.26	0.781	
CO5	0.83	0.834	0.834	0.834	0.556					0.556			0.556	0.834	
Course Contribution		0.78	0.69	0.78	0.34					0.52			0.36	0.69	

Course Instructor

HOD

HEAD OF THE DEPARTMENT
MECHANICAL ENGINEERING
SV COLLEGE OF ENGINEERING
KARAKAMBADI ROAD, TIRUPATHI - 517 507

SRI VENKATESWARA COLLEGE OF ENGINEERING
KARKAMBADI ROAD,TIRUPATI
DEPARTMENT OF INFORMATION TECHNOLOGY

CO ATTAINMENT

Course Name:	Problem solving and Programming	
Course Code:	19A05101T	C113
Session of Course:	August 2019- January 2020	
L:T:P	03:01:00	
Year/Semester	I-I B.Tech	
Credits:	4	
Batch:	2019-2023	

CO MAPPING

	COURSE OUTCOMES	Test-1	Test-2	Assign-1	Assign-2
CO1	Construct his own computer using parts	Q1,Q2, Q3		CO1,CO2	
CO2	Recognize the importance of programming language independent constructs	Q4,Q5, Q6		CO1,CO2	
CO3	Solve computational problems		Q1,Q2		CO3,CO4,CO5
CO4	Select the features of C language appropriate for solving a problem		Q3,Q4		CO3,CO4,CO5
CO5	Design computer programs for real world problems		Q5,Q6		CO3,CO4,CO5

CO	3	2	1	SUM	TOTAL NO	INDIRECT LEVEL	% INDIRECT LEVEL
CO1	216	30	10	718	256	2.80	81.81
CO2	231	17	8	735	256	2.87	84.78
CO3	231	19	6	737	256	2.88	81.56
CO4							
CO5	246	8	2	756	256	2.95	88.60

COs ATTAINMENT:

Mapping of COs						Assign-1	Assign-2	Obj-1	Obj-2	External Attainment level	Direct Attainment levels	Indirect (CES) Attainment Level	CO Attained	% CO Attained
CO	Mapping of Mid I & Mid II Term Examination													
CO1	2.33	2.87	2.20			3.00		2.90		1.42	2.45	2.68	2.50	83.34
CO2	2.37	2.53	3.00			3.00		2.95		1.41	2.54	2.72	2.58	85.95
CO3	3.00	1.88					3.00		2.95	1.41	2.45	2.72	2.50	83.38
CO4	3.00	2.93					3.00		2.95	1.41	2.66	2.61	2.65	88.31
CO5	2.93	3.00					3.00		2.95	1.41	2.66	2.68	2.66	88.77

CO ATTAINMENT ANALYSIS: **Target Level: 1.95**

Based on the above results COs are attained.

ACTION SUGGESTED:

For the forth coming batch target level can be increased.

PO ATTAINMENT

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	Levels
CO1	3	2	2	2									3	3	2.50
CO2	3	3	3	2									3	3	2.58
CO3	3	3	3										3	3	2.50
CO4	3	3	3										3	3	2.65
CO5	3	3	3										3	3	2.66
TOTAL	5	5	5	2	0	0	0	0	0	0	0	0	5	5	

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO-PO LEVEL	2.58	2.41	2.41	1.69									2.58	2.58
% CO-PO	85.95	80.40	80.40	56.43									85.95	85.95

Signature of the Faculty

In-Charge

HOD