

# FINAL YEAR: MECHANICAL ENGINEERING

## SCHEME OF INSTRUCTION AND EXAMINATION

(RC 2016-17)

### SEMESTER – VII

Subject Code	Name of the Subject	Scheme of Instruction Hrs/Week			Scheme of Examination						
		L	T	P#	Th Duration (Hrs)	Marks					Total
						Th	S	TW	P	O	
ME 7.1	Heat and Mass Transfer	3	--	2	3	100	25	--	--	--	125
ME 7.2	Industrial Engineering and Operations Management	4	1	--	3	100	25	--	--	--	125
ME 7.3	CAD and FEA	3	1	2	3	100	25	--	25	--	150
ME 7.4	Elective - I	3	--	2	3	100	25	--	--	25	150
ME 7.5	Elective - II	3	--	2	3	100	25	--	--	25	150
ME 7.6	Project	--	--	4	--	--	--	--	--	25	25
<b>TOTAL</b>		<b>16</b>	<b>2</b>	<b>12</b>	<b>--</b>	<b>500</b>	<b>125</b>	<b>--</b>	<b>25</b>	<b>75</b>	<b>725</b>

#A candidate is considered to have successfully fulfilled the requirement of a semester, provided he/she submits to the department a certified journal reporting the experiments conducted during the semester.

#### List of Electives

Subject Code	Elective - I	Subject Code	Elective - II
ME 7.4.1	Advanced Mechanics of Solids	ME 7.5.1	Six Sigma Management
ME 7.4.2	Advanced Analysis and Synthesis of Mechanism	ME 7.5.2	Management Information System
ME 7.4.3	Vibration and Noise control	ME 7.5.3	System Modeling and Simulation
ME 7.4.4	Alternate Energy Sources	ME 7.5.4	Applied Operations Research
ME 7.4.5	Power Plant Engineering	ME 7.5.5	Industrial Safety and Environment
ME 7.4.6	Design of Heat Exchangers	ME 7.5.6	Industrial Automation and Process Control
ME 7.4.7	Modern Manufacturing Practices	ME 7.5.7	Micro Electro Mechanical Systems
ME 7.4.8	Tool Engineering	ME 7.5.8	Competitive Manufacturing Management

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## SCHEME OF INSTRUCTION AND EXAMINATION

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### SEMESTER – VIII

Subject Code	Name of the Subject	Scheme of Instruction Hrs/Week			Scheme of Examination						
		L	T	P#	Th Duration (Hrs)	Marks					
						Th	S	TW	P	O	Total
ME 8.1	Computer Integrated Manufacturing Systems	4	--	2	3	100	25	--	--	--	<b>125</b>
ME 8.2	Refrigeration and Air-Conditioning	4	--	2	3	100	25	--	25	--	<b>150</b>
ME 8.3	Elective - III	3	--	2	3	100	25	--	--	25	<b>150</b>
ME 8.4	Elective - IV	3	--	2	3	100	25	--	--	25	<b>150</b>
ME 8.5	Project*	--	--	8	--	--	--	75	--	75	<b>150</b>
<b>TOTAL</b>		<b>14</b>	<b>--</b>	<b>16</b>	<b>--</b>	<b>400</b>	<b>100</b>	<b>75</b>	<b>25</b>	<b>125</b>	<b>725</b>

\*Term Work in Project is a separate Head of Passing

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#### List of Electives

Subject Code	Elective - III	Subject Code	Elective - IV
ME 8.3.1	Finite Element Method in Engineering	ME 8.4.1	Supply Chain Management
ME 8.3.2	Tribology	ME 8.4.2	Corporate Finance
ME 8.3.3	Product Design and Development	ME 8.4.3	Entrepreneurship Development
ME 8.3.4	Cryogenics	ME 8.4.4	Advanced Optimization
ME 8.3.5	Energy Audit and Management	ME 8.4.5	Maintenance Engineering and Management
ME 8.3.6	Computational Fluid Dynamics	ME 8.4.6	Fluid Power Control
ME 8.3.7	Nanotechnology	ME 8.4.7	Industrial Robotics
ME 8.3.8	Fibre Reinforced Composites	ME 8.4.8	Control System Engineering