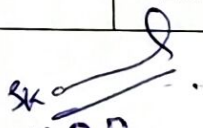


B.E. Mechanical Engineering

III SEMESTER

Sl. No	Subject Code	Title	Teaching Hours /Week			Examination				Credits
			Lecture	Tutorial	Practical	Duration (Hours)	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15MAT31	Engineering Mathematics – III	04			03	80	20	100	4
2	15ME32	Materials Science	04			03	80	20	100	4
3	15ME33	Basic Thermodynamics	03	02		03	80	20	100	4
4	15ME34	Mechanics of Materials	03	02		03	80	20	100	4
5	15ME35A/	Metal Casting and Welding	04			03	80	20	100	4
	15ME35B	Machine Tools and Operations								
6	15ME36 A/	Computer Aided Machine Drawing	02		4	03	80	20	100	3
	15ME36B	Mechanical Measurements and Metrology	04							
7	15MEL37A/	Materials Testing Lab/	1		2	03	80	20	100	2
	15MEL37B	Mechanical Measurements and Metrology Lab								
8	15MEL38A/	Foundry and Forging Lab	1		2	03	80	20	100	2
	15MEL38B	Machine Shop/								
TOTAL			22/24	04	08/04		640	160	800	27


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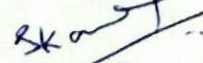

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Sl. No	Subject Code	Title	Teaching Hours /Week			Examination				Credits
			Lecture	Tutorial	Practical	Duration (Hours)	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15MAT41	Engineering Mathematics – III	04			03	80	20	100	04
2	15ME42	Kinematics of Machinery	03	02		03	80	20	100	04
3	15ME43	Applied Thermodynamics	03	02		03	80	20	100	04
4	15ME44	Fluid mechanics	03	02		03	80	20	100	04
5	15ME45A/	Metal Casting and Welding	04			03	80	20	100	04
	15ME45B	Machine Tools and Operations								
6	15ME46 A/	Computer Aided Machine Drawing	02		4	03	80	20	100	03
	15ME46B	Mechanical Measurements and Metrology	04							
7	15MEL47A /	Materials Testing Lab/	1		2	03	80	20	100	02
	15MEL47B	Mechanical Measurements and Metrology Lab								
8	15MEL48A /	Foundry and Forging Lab	1		2	03	80	20	100	02
	15MEL48B	Machine Shop/								
TOTAL			19/21	06	08/04		640	160	800	27



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Dept. Of Mechanical Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

V SEMESTER

B.E. Mechanical Engineering

Sl. No	Subject Code	Title	Teaching Hours /Week			Examination				Credits
			Lecture	Tutorial	Practical	Duration (Hours)	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15ME51	Management and Engineering Economics	3	2	0	03	80	20	100	4
2	15ME52	Dynamics of Machinery	3	2	0	03	80	20	100	4
3	15ME53	Turbo Machines	3	2	0	03	80	20	100	4
4	15ME54	Design of Machine Elements - I	3	2	0	03	80	20	100	4
5	15ME55X	Professional Elective-I	3	0	0	03	80	20	100	4
6	15ME56X	Open Elective-I	3	0	0	03	80	20	100	3
7	15MEL57	Fluid Mechanics & Machinery Lab	1	0	2	03	80	20	100	3
8	15MEL58	Energy Lab	1	0	2	03	80	20	100	2
TOTAL			21	06	04		640	160	800	26

Professional Elective-I

15ME551	Refrigeration and Air-conditioning
15ME552	Theory of Elasticity
15ME553	Human Resource Management
15ME554	Non Traditional Machining

Open Elective-I

15ME561	Optimization Techniques
15ME562	Energy and Environment
15ME563	Automation and Robotics
15ME564	Project Managemet

- 1. Core subject:** This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.
- 2. Professional Elective:** Elective relevant to chosen specialization/ branch
- 3. Open Elective:** Electives from other technical and/or emerging subject areas.



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Dept. Of Mechanical Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

VI SEMESTER

B.E. Mechanical Engineering

Sl. No	Subject Code	Title	Teaching Hours /Week			Examination				Credits
			Lecture	Tutorial	Practical	Duration (Hours)	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15ME61	Finite Element Analysis	3	2	0	03	80	20	100	4
2	15ME62	Computer integrated Manufacturing	4	0	0	03	80	20	100	4
3	15ME63	Heat Transfer	3	2	0	03	80	20	100	4
4	15ME64	Design of Machine Elements -II	3	2	0	03	80	20	100	4
5	15ME65X	Professional Elective-II	3	0	0	03	80	20	100	3
6	15ME66X	Open Elective-II	3	0	0	03	80	20	100	3
7	15MEL67	Heat Transfer Lab	1	0	2	03	80	20	100	2
8	15MEL68	Modeling and Analysis Lab(FEA)	1	0	2	03	80	20	100	2
TOTAL			21	6	04		640	160	800	26

Professional Elective-II		Open Elective-II	
15ME651	Computational Fluid Dynamics	15ME661	Energy Auditing
15ME652	Mechanics of Composite Materials	15ME662	Industrial Safety
15ME653	Metal Forming	15ME663	Maintenance Engineering
15ME654	Tool Design	15ME664	Total Quality Management
15ME655	Automobile Engineering		

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- 2. Professional Elective:** Elective relevant to chosen specialization/ branch
- 3. Open Elective:** Electives from other technical and/or emerging subject areas.

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Dept. Of Mechanical Engineering
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VII SEMESTER

B.E. Mechanical Engineering

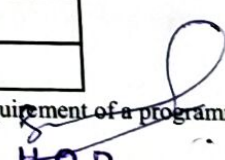
Sl. No	Subject Code	Title	Teaching Hours /Week			Examination				Credits
			Lecture	Tutorial	Practical	Duration (Hours)	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15ME71	Energy Engineering	3	2	0	03	80	20	100	4
2	15ME72	Fluid Power Systems	4	0	0	03	80	20	100	4
3	15ME73	Control Engineering	3	2	0	03	80	20	100	4
4	15ME74X	Professional Elective - III	3	0	0	03	80	20	100	3
5	15ME75X	Professional Elective-IV	3	0	0	03	80	20	100	3
6	15MFL76	Design Lab	1	0	2	03	80	20	100	2
7	15MEL77	CIM Lab	1	0	2	03	80	20	100	2
8	15MEP78	Project Phase – I	-	-	-	-	-	100	100	2
TOTAL			18	4	04		560	240	800	24

Professional Elective-III		Professional Elective-IV	
15ME741	Design of Thermal Equipments	15ME751	Automotive Electronics
15ME742	Tribology	15ME752	Fracture Mechanics
15ME743	Financial Management	15ME753	Mechatronics
15ME744	Design for Manufacturing	15ME754	Advanced Vibrations
15ME745	Smart Materials & MEMS		

1. **Core subject:** This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. **Professional Elective:** Elective relevant to chosen specialization/ branch


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 Dept. Of Mechanical Engineering
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SCHEME OF TEACHING AND EXAMINATION 2015-2016

VIII SEMESTER

B.E. Mechanical Engineering

Sl. No	Subject Code	Title	Teaching Hours /Week			Examination				Credits
			Lecture	Tutorial	Practical	Duration (Hours)	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15ME81	Operations Research	3	2	0	03	80	20	100	4
2	15ME82	Additive Manufacturing	4	0	0	03	80	20	100	4
3	15ME83X	Professional Elective - V	3	0	0	03	80	20	100	3
4	15ME84	Internship / Professional Practice	Industry Oriented			03	50	50	100	2
5	15ME85	Project Phase – II	-	6	-	03	100	100	200	6
6	15ME86	Seminar	-	4	-	-	-	100	100	1
TOTAL			10	12	-		390	310	700	20

Professional Elective-V

15ME831	Cryogenics
15ME832	Experimental Stress Analysis
15ME833	Theory of Plasticity
15ME834	Green Manufacturing
15ME835	Product life cycle management

1. **Core subject:** This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.
2. **Professional Elective:** Elective relevant to chosen specialization/ branch
3. **Internship / Professional Practice:** To be carried out between 6th & 7th semester vacation or 7th & 8th semester vacation.


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