

JABALPUR ENGINEERING COLLEGE, JABALPUR (MP)
(An Autonomous Institute of Govt. of M.P.)
Affiliated to Rajiv Gandhi Technological University, Bhopal (MP)

Scheme of Study and Examination (w.e.f. July 2010)

M.E. II Sem. Branch : Civil Engg. Specialization : Environment Engineering

Course Code	Subject	Periods			EVALUATION SCHEME					Credits
		L	T	P	SESSIONAL EXAM			ESE	SUB TOTAL	
					TA	CT	TOT			
<u>CE-126</u>	Water Treatment - II	3	1	-	10	20	30	70	100	4
<u>CE-127</u>	Waste Water Treatment - II	3	1	-	10	20	30	70	100	4
<u>CE-128</u>	Air Pollution	3	1	-	10	20	30	70	100	4
<u>CE-129A</u>	Elective – I (Any One)									
	Industrial water & Waste Treatment									
<u>CE-129B</u>	Environmental Accounting & Auditing	3	1	-	10	20	30	70	100	4
<u>CE-129C</u>	Environmental Degradation									
<u>CE-130A</u>	Elective - II (Any One)									
	Solid Waste Management and E.I.A.									
<u>CE-130B</u>	Hazardous Waste Management	3	1	-	10	20	30	70	100	4
<u>CE-130C</u>	Applied Environmental Structures									
(PRACTICAL/DRAWING/DESIGN)										
<u>CE-131L</u>	Advanced Enviro. Lab -II	-	-	2	60	-	60	90	150	6
<u>CE132L</u>	Field Testing Lab -II	-	-	2	60	-	60	90	150	6
	Total	15	5	4	170	100	270	530	800	32

T.A. Teachers Assessment, CT- Class Test, ESE - End Semester Examination, Total Marks 800

Total Periods : 24 Total Credits : 32



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M.E. II Sem. Branch : Civil Engg. Specialization : Geotechnical Engineering

Course Code	Subject	Periods			EVALUATION SCHEME					Credits
		L	T	P	SESSIONAL EXAM			ESE	SUB TOTAL	
					TA	CT	TOT			
<u>CE-119</u>	Soil Structure Interaction	3	1	-	10	20	30	70	100	4
<u>CE-120</u>	Geo technic of Dams	3	1	-	10	20	30	70	100	4
<u>CE-121</u>	Geodynamics & Machine Foundation	3	1	-	10	20	30	70	100	4
<u>CE-122A</u>	Elective – I (Any One)									
	Rock Mechanics									
<u>CE-122B</u>	Advances in Geotechnical Engineering	3	1	-	10	20	30	70	100	4
<u>CE-122C</u>	Tunnel Engineering									
<u>CE-122D</u>	Geosynthetics and Reinforced Earth									
	Elective - II (Any One)									
<u>CE-123A</u>	Advanced Foundation Engineering									
<u>CE-123B</u>	Geotechnical Processes	3	1	-	10	20	30	70	100	4
<u>CE-123C</u>	Remote Sensing GIS & Geointerpretation									
<u>CE-123D</u>	Environmental Geotechnology									
(PRACTICAL/DRAWING/DESIGN)										
<u>CE-124L</u>	Advanced Geotech. Lab	-	-	2	60	-	60	90	150	6
<u>CE-125L</u>	Geotech Field Testing Lab - II	-	-	2	60	-	60	90	150	6
	Total	15	5	4	170	100	270	530	800	32

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M.E. II Sem. Branch : Civil Engg. Specialization : Structural Engineering

Course Code	Subject	Periods			EVALUATION SCHEME					Credits
		L	T	P	SESSIONAL EXAM			ESE	SUB TOTAL	
					TA	CT	TOT			
<u>CE-133</u>	Structural Dynamics	3	1	-	10	20	30	70	100	4
<u>CE-134</u>	Design of Earthquake Resistant Structures	3	1	-	10	20	30	70	100	4
<u>CE-135</u>	Theory of Plates & Shells and FEM Applications	3	1	-	10	20	30	70	100	4
<u>CE-136A</u>	Elective – I (Any One)									
	Experimental Stress Analysis									
<u>CE-136B</u>	Structural Optimization	3	1	-	10	20	30	70	100	4
<u>CE-136C</u>	Non Destructive Testing of Structures									
<u>CE-137A</u>	Elective - II (Any One)									
	Industrial Structures									
<u>CE-137B</u>	Advanced Construction Materials	3	1	-	10	20	30	70	100	4
<u>CE-137C</u>	Pre-stressed Concrete Design									
<u>CE-137D</u>	Plastic Analysis & Design									
(PRACTICAL/DRAWING/DESIGN)										
<u>CE-138L</u>	CAD Lab	-	-	2	60	-	60	90	150	6
<u>CE-139L</u>	Non Destructive Testing Lab	-	-	2	60	-	60	90	150	6
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Scheme of Study and Examination (w.e.f. July 2010)
M.E. II Sem. Branch : Electrical Engg. Specialization : Control Engineering

Course Code	Subject	Periods			EVALUATION SCHEME					Credits
		L	T	P	SESSIONAL EXAM			ESE	SUB TOTAL	
					TA	CT	TOT			
<u>EE-116</u>	Fuzzy Maths & Application Controller	3	1	-	10	20	30	70	100	4
<u>EE-117</u>	Optimal & Adaptive Control	3	1	-	10	20	30	70	100	4
<u>EE-118</u>	Advanced Digital Signal Processing	3	1	-	10	20	30	70	100	4
<u>EE-119A</u>	Elective – I (Any One)									
	Pattern Recognition	3	1	-	10	20	30	70	100	4
<u>EE-119B</u>	Robust Control System									
<u>EE-119C</u>	SCADA									
<u>EE-120A</u>	Elective – II (Any One)									
	Adv.System Engineering									
<u>EE-120B</u>	Computer Control Process	3	1	-	10	20	30	70	100	4
<u>EE-120C</u>	Advance Microprocessor & Microcontroller									
(PRACTICAL/DRAWING/DESIGN)										
<u>EE-121L</u>	CS Engg. Lab - III	-	-	2	60	-	60	90	150	6
<u>EE-122L</u>	CS Engg. Lab - IV	-	-	2	60	-	60	90	150	6
	Total	15	5	4	170	100	270	530	800	32

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M.E. II Sem. Branch : Electrical Engg. Specialization : High Voltage Engineering

Course Code	Subject	Periods			EVALUATION SCHEME					Credits
		L	T	P	SESSIONAL EXAM			ESE	SUB TOTAL	
					TA	CT	TOT			
<u>EE-123</u>	Soft Computing Techniques & Applications to Power Systems	3	1	-	10	20	30	70	100	4
<u>EE-124</u>	Overvoltage Protection	3	1	-	10	20	30	70	100	4
<u>EE-125</u>	Insulation Engg.	3	1	-	10	20	30	70	100	4
<u>EE-126A</u>	Elective – I (Any One)									
	HVDC Transmission	3	1	-	10	20	30	70	100	4
<u>EE-126B</u>	FACTS Controllers									
<u>EE-127A</u>	Elective - II (Any One)									
	Electrical Design of super Tension Overhead Transmission Line	3	1	-	10	20	30	70	100	4
<u>EE-127B</u>	Computer Application in Power System Engineering									
(PRACTICAL/DRAWING/DESIGN)										
<u>EE-128L</u>	HV Engg. Lab - III	-	-	2	60	-	60	90	150	6
<u>EE-129L</u>	HV Engg. Lab - IV	-	-	2	60	-	60	90	150	6
	Total	15	5	4	170	100	270	530	800	32

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M.E. II Sem.

Branch : Electrical Engg.

Specialization : High Voltage & Power System Engineering

Course Code	Subject	Periods			EVALUATION SCHEME					Credits
		L	T	P	SESSIONAL EXAM			ESE	SUB TOTAL	
					TA	CT	TOT			
<u>EE-123</u>	Soft Computing Techniques & Applications to Power System	3	1	-	10	20	30	70	100	4
<u>EE-124</u>	Overvoltage Protection	3	1	-	10	20	30	70	100	4
<u>EE-130</u>	Power System dynamics & Control	3	1	-	10	20	30	70	100	4
	Elective – I (Any One)									
<u>EE-131A</u>	EHV AC-DC Transmission	3	1	-	10	20	30	70	100	4
<u>EE-126B</u>	FACTS Controller									
	Elective - II (Any One)									
<u>EE-127B</u>	Computer Application in Power System Engg.	3	1	-	10	20	30	70	100	4
<u>EE-119C</u>	SCADA									
(PRACTICAL/DRAWING/DESIGN)										
<u>EE-132L</u>	HVPS Engg. Lab III	-	-	2	60	-	60	90	150	6
<u>EE-133L</u>	HVPS Engg. Lab IV	-	-	2	60	-	60	90	150	6
	Total	15	5	4	170	100	270	530	800	32

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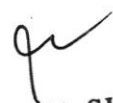
M.E. II Sem. Branch : E & C Engg.

Specialization : Communication System Engineering

Course Code	Subject	Periods			EVALUATION SCHEME					Credits
		L	T	P	SESSIONAL EXAM			ESE	SUB TOTAL	
					TA	CT	TOT			
<u>EC-113</u>	Detection & Estimation Theory	3	1	-	10	20	30	70	100	4
<u>EC-114</u>	Communication Theory	3	1	-	10	20	30	70	100	4
<u>EC-115</u>	Information Theory & Coding,	3	1	-	10	20	30	70	100	4
	Elective - I (Any One)									
<u>EC-116A</u>	Wavelet Transform for Signal & Image Processing	3	1	-	10	20	30	70	100	4
<u>EC-116B</u>	Speech Processing									
	Elective - II (Any One)									
<u>EC-117A</u>	Mobile Communication & Standards	3	1	-	10	20	30	70	100	4
<u>EC-117B</u>	VLSI Design									
(PRACTICAL/DRAWING/DESIGN)										
<u>EC-118L</u>	Communication System Lab - II	-	-	2	60	-	60	90	150	6
<u>EC-119L</u>	Minor Project - II	-	-	2	60	-	60	90	150	6
	Total	15	5	4	170	100	270	530	800	32

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Total Periods : 24 Total Credits : 32

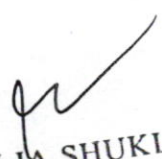

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M.E. II Sem. Branch : E & C Engg. Specialization : Microwave Engineering

Course Code	Subject	Periods			EVALUATION SCHEME					Credits
		L	T	P	SESSIONAL EXAM			ESE	SUB TOTAL	
					TA	CT	TOT			
<u>EC-120</u>	MIC and MMIC Design	3	1	-	10	20	30	70	100	4
<u>EC-121</u>	EMI and EMC Techniques	3	1	-	10	20	30	70	100	4
<u>EC-122</u>	Microwave Networks and Measurements	3	1	-	10	20	30	70	100	4
	Elective – I (Any One)									
<u>EC-123A</u>	Analytical and Computational Techniques in Electromagnetics	3	1	-	10	20	30	70	100	4
<u>EC-123B</u>	Microwave Communication & System									
	Elective - II (Any One)									
<u>EC-124A</u>	Radar Signature Analysis and Imaging	3	1	-	10	20	30	70	100	4
<u>EC-124B</u>	Phased Array Radar									
(PRACTICAL/DRAWING/DESIGN)										
<u>EC-125L</u>	Microwave Lab	-	-	2	60	-	60	90	150	6
<u>EC-126L</u>	Minor Project - II	-	-	2	60	-	60	90	150	6
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M.E. II Sem. Branch : Mech. Engg. Specialization : Heat Power

ME-11 Course: Branch: Mech: Engg. Specialization: Heat Engg.										
Course Code	Subject	Periods			EVALUATION SCHEME					Credits
		L	T	P	SESSIONAL EXAM			ESE	SUB TOTAL	
					TA	CT	TOT			
<u>ME-113</u>	Numerical Methods in Fluid Flow & Heat Transfer	3	1	-	10	20	30	70	100	4
<u>ME-114</u>	Control Theory & Systems	3	1	-	10	20	30	70	100	4
<u>ME-115</u>	Design of Heat Exchanger Equipments	3	1	-	10	20	30	70	100	4
<u>ME-116A</u>	Elective – I (Any One)									
	Refrigeration Systems									
<u>ME-1116B</u>	Design of I.C Engines	3	1	-	10	20	30	70	100	4
<u>ME-116C</u>	Application of F.E.M. to Thermal Engineering									
<u>ME-117A</u>	Elective - II (Any One)									
	Design of Air Conditioning Systems									
<u>ME-117B</u>	Engine System Modeling and Analysis									
(PRACTICAL/DRAWING/DESIGN)										
<u>ME-118L</u>	Numerical Methods in Fluid Flow & Heat Transfer Lab	-	-	2	60	-	60	90	150	6
<u>ME-119L</u>	Refrigeration Systems Lab	-	-	2	60	-	60	90	150	6
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M.E. II Sem. Branch : Mechanical Engg. Specialization : Machine Design

Course Code	Subject	Periods			EVALUATION SCHEME					Credits
		L	T	P	SESSIONAL EXAM			ESE	SUB TOTAL	
					TA	CT	TOT			
ME-120	Advanced Machine Design	3	1	-	10	20	30	70	100	4
ME-121	Finite Element Method	3	1	-	10	20	30	70	100	4
ME-122	Mechanics of Materials Failure and Fracture	3	1	-	10	20	30	70	100	4
ME-123A	Elective – I (Any One)									
	Random Vibration									
ME-123B	Vibration and Noise Control	3	1	-	10	20	30	70	100	4
ME-123C	Applied Dynamics and Vibration Control									
ME-123D	Dynamics of Mechanical System.									
ME-124A	Elective - II (Any One)									
	Mechanical Analysis and Synthesis									
ME-124B	Advanced Topics in Mechanism	3	1	-	10	20	30	70	100	4
ME-124C	Introduction to Robotics									
ME-124D	Robotics and Robot Applications									
(PRACTICAL/DRAWING/DESIGN)										
ME-125L	Finite Element Method Practice	-	-	2	60	-	60	90	150	6
ME-126L	Robotics Lab	-	-	2	60	-	60	90	150	6
	Total	15	5	4	170	100	270	530	800	32

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