

MTech – Mechanical (HPE)

Scheme of Examination for MTech - Mechanical Engineering												
Branch- Heat Power Engineering												
Semester- I												
Subject code	Subject Name	Teaching Scheme (Weekly Load in hrs.)				Credits	Evaluation Scheme					ESE Duration (Hrs.)
		Lecture	Tutorial	Practical	Total		Theory			Practical	Total	
							TAE 20%	CAE 20%	ESE 60%	Cont. Ass.		
MHPL501	Advanced Mathematics and Numerical Methods	3	1	--	4	4	20	20	60	--	100	3
MHPL502	Advanced Thermodynamics and Combustion Technology	3	1	--	4	4	20	20	60	--	100	3
MHPL503	Advanced Fluid Mechanics	3	1	--	4	4	20	20	60	--	100	3
MHPL504	Research Methodology	3	1	--	4	4	20	20	60	--	100	3
MHPL505	Elective I	2	--	--	2	2	20	20	60	--	100	3
MHPP506	Lab Practice I	--	--	4	4	2	--	--	--	100	100	--
MSDP501	Advance Skill Development	--	--	2	2	AU	--	--	--	--	--	--
	Total	14	4	6	24	20	100	100	300	100	600	--

MHPL505: Elective-I			
Modules of 2 Credits (Select any One)			
Code No.	Title	Code No.	Title
MHPL505A	Energy Audit and Management	MHPL505G	Operation Management
MHPL505B	Financial Management	MHPL505H	Engineering Economics
MHPL505C	Financial Costing	MHPL505I	Technology Forecasting
MHPL505D	Project Management	MHPL505J	Technology Transfer
MHPL505E	Energy Efficient Technologies in Electrical Systems	MHPL505K	Human Rights
MHPL505F	Environmental Pollution and Control	MHPL505L	Intellectual property Rights

Scheme of Examination for MTech - Mechanical Engineering													
Branch- Heat Power Engineering													
Semester- II													
Subject code	Subject Name	Teaching Scheme (Weekly Load in hrs)				Credits	Evaluation Scheme						ESE Duration (Hrs)
		Lecture	Tutorial	Practical	Total		Theory			Practical		Total	
							TAE 20%	CAE 20%	ESE 60%	Cont. Ass.	Ext. Ass.		
MHPL507	Advanced Heat Transfer	3	1	-	4	4	20	20	60	--	--	100	3
MHPL508	Air Conditioning Technology	3	1	-	4	4	20	20	60	--	--	100	3
MHPL509	Computational Fluid Dynamics	3	1	-	4	4	20	20	60	--	--	100	3
MHPL510	Elective II	3	-	-	3	3	20	20	60	--	--	100	3
MHPL511	Elective III	3	-	-	3	3	20	20	60	--	--	100	3
MHPP512	Lab Practice II	-	-	4	4	2	--	--	--	50	50	100	-
	Total	15	3	4	22	20	100	100	300	50	50	600	-

MHPL502: Elective-II			
Modules of 2 Credits (Select any One)			
Code No.	Title	Code No.	Title
MHPL510A	Thermal System Design	MHPL510J	Jet Propulsion
MHPL510B	Aerodynamics	MHPL510K	Incompressible Flow Turbo machines
MHPL510C	Introduction to flight	MHPL510L	Cryogenic Engineering Gas Liquefaction
MHPL510D	Vacuum Technology	MHPL510M	Fuel Burning Devices
MHPL510E	Gas Dynamics	MHPL510N	Adsorption Technology
MHPL510F	Turbomachinery	MHPL510O	Industrial Hydraulics
MHPL510G	Gas Turbine	MHPL510P	Turbulent Jets
Modules of 1 Credits (Select any One)			
MHPL510a	Selection of Fans, Pumps and blowers	MHPL510d	Clean-room Technology
MHPL510b	Biomass Technology	MHPL510e	Pneumatics
MHPL510c	Nano-materials	MHPL510f	Insulating Materials and Refractories

MHPL511: Elective-III			
Modules of 3 Credits (Select any One)			
Code No.	Title	Code No.	Title
MHPL511A	Open Elective	MHPL511D	Cryogenics
MHPL511B	Thermal Storage Systems	MHPL511E	Measurements and Controls
MHPL511C	Design of Heat Exchangers	MHPL511F	Optimization Technique

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Semester- III													
Subject code	Subject Name	Teaching Scheme (Weekly Load in hrs)				Credits	Evaluation Scheme						ESE Duration (Hrs)
		Lecture	Tutorial	Practical	Total		Theory			Practical		Total	
							TAE 20%	CAE 20%	ESE 60%	Cont. Ass.	Ext. Ass.		
MHPP601	Technical Writing	--	--	3	3	3	--	--	--	50	50	100	--
MHPP602	Seminar I	--	--	4	4	4	--	--	--	50	50	100	--
MHPP603	Dissertation Phase-I	--	--	8	8	8	--	--	--	100	100	200	--
	Total	--	--	15	15	15	--	--	--	200	200	400	--

Scheme of Examination for MTech - Mechanical Engineering													
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Semester- IV													
Subject code	Subject Name	Teaching Scheme (Weekly Load in hrs)				Credits	Evaluation Scheme						ESE Duration (Hrs.)
		Lecture	Tutorial	Practical	Total		Theory			Practical		Total	
							TAE 20%	CAE 20%	ESE 60%	Cont. Ass.	Ext. Ass.		
MHPP604	Seminar II	--	--	4	4	4	--	--	--	50	50	100	--
MHPP605	Dissertation Phase-II	--	--	16	16	16	--	--	--	200	100	300	--
	Total	--	--	20	20	20	--	--	--	250	150	400	--