SWAMI VIVEKANAND UNIVERSITY, SIRONJA, SAGAR (M.P.)

SYLLABUS

For

MASTER OF TECHNOLOGY (M.Tech)
THERMAL ENGINEERING

Course Code : MTTE

Department of Mechanical Engineering

Faculty of Engineering

Duration of Course	:	2 Years
Examination Mode	:	Semester
Examination System	:	Grading

Swami Vivekanand University, Sironja Sagar (M.P.)
2016-2017

Swami Vivekanand University, Sagar (M.P.)
Scheme of Examination

Faculty of Engineering Department : Mechanical Engineering

Scheme of Course : M.Tech in Thermal Engineering Course Code : MTTE Semester/Year :- 1 Sem

Paper / Subject Code	Title of the Paper / Subject	Credit Allotted			Total Credit	Distribution of Marks										Duration of Theory Exam
						Theory					Practical				Grand Total (H= D+G)	
						End Sem.		Internal		Total (D= A+B+C)	End Sem.		Internal	Total (G= E+F)		
		L	T	P		Max (A)	Min	MST (B)	TW (C)		Max (E)	Min	LW (F)			
MTTE-0101	Advance Mathematics	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs
MTTE-0102	Thermodynamics and Combustion	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs
MTTE-0103	Heat & Mass transfer	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs
MTTE-0104	Advanced fluid Mechanics	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs
MTTE-0105	IC Engines and alternate fuels.	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs
MTTE-0106	Thermal Engg. Lab-I (HMT)	-	-	6	6	-	-	-	-	-	90	36	60	150	150	-
MTTE-0107	Thermal Engg. Lab-II (IC Engine)	-	-	6	6	-	-	-	-	-	90	36	60	150	150	-
	Total	15	05	12	32	350	-	100	50	500	180	-	120	300	800	

Swami Vivekanand University, Sagar (M.P.)
Scheme of Examination

Faculty of Engineering Department : Mechanical Engineering

Scheme of Course : M.Tech in Thermal Engineering Course Code : MTTE Semester/Year :- 2 Sem

Paper / Subject Code	Title of the Paper / Subject	Credit Allotted			Total Credit	Distribution of Marks										Duration of Theory Exam
						Theory					Practical				Grand Total (H= D+G)	
						End Sem.		Internal		Total (D= A+B+C)	End Sem.		Internal	Total (G= E+F)		
		L	T	P		Max (A)	Min	MST (B)	TW (C)		Max (E)	Min	LW (F)			
MTTE-0201	Thermal Power Plant Engg.	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs
MTTE-0202	Design of Heat Exchangers	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs
MTTE-0203	Advance Refrigeration Systems	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs
MTTE-0204	Steam and Gas Turbine	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs
MTTE-0205	Maintenance of Thermal Power Plant	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs
MTTE-0206	Lab-III - Maintenance of Thermal Power Plant	-	-	6	6	-	-	-	-	-	90	36	60	150	150	-
MTTE-0207	Lab-IV - Advance Refrigeration and Air conditioning Systems	-	-	6	6	-	-	-	-	-	90	36	60	150	150	-
	Total	15	05	12	32	350	-	100	50	500	180	-	120	300	800	

Swami Vivekanand University, Sagar (M.P.)
Scheme of Examination

Faculty of Engineering Department : Mechanical Engineering

Scheme of Course : M.Tech in Thermal Engineering Course Code : MTTE Semester/Year :- 3 Sem

Paper / Subject Code	Title of the Paper / Subject	Credit Allotted			Total Credit	Distribution of Marks										Duration of Theory Exam
						Theory					Practical				Grand Total (H= D+G)	
						End Sem.		Internal		Total (D= A+B+C)	End Sem.		Internal	Total (G= E+F)		
		L	T	P		Max (A)	Min	MST (B)	TW (C)		Max (E)	Min	LW (F)			
MTTE-0301	Elective – I **(Refer Table Below)**	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs
MTTE-0302	Elective – II **(Refer Table Below)**	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs
MTTE-0303	Seminar	-	-	4	4	-	-	-	-	-	-	-	100	100	100	-
MTTE-0304	Dissertation Part-I (Literature Review/Problem Formulation/ Synopsis)	-	-	8	8	-	-	-	-	-	120	48	80	200	200	
	Total	6	2	12	20	140	-	40	20	200	120	-	180	300	500	

Elective I

MTTE – 0301(A)Computer Aided Design of Thermal System

MTTE – 0301 (B) Engine System Modeling and Analysis

Elective II

MTTE – 0302 (A) Gas Flow Through Turbo Machines

MTTE – 0302 (B) Non Conventional Energy Sources

Swami Vivekanand University, Sagar (M.P.)
Scheme of Examination

Faculty of Engineering | Department : Mechanical Engineering

Scheme of Course : M.Tech in Thermal Engineering | Course Code : MTTE | Semester/Year :- 4 Sem

Paper / Subject Code	Title of the Paper / Subject	Credit Allotted			Total Credit	Distribution of Marks										Duration of Theory Exam
						Theory					Practical				Grand Total (H= D+G)	
						End Sem.		Internal		Total (D= A+B+C)	End Sem.		Internal	Total (G= E+F)		
		L	T	P		Max (A)	Min	MST (B)	TW (C)		Max (E)	Min	LW (F)			
MTTE-0401	Dissertation Part- II	-	-	20	20	-	-	-	-	-	300	120	200	500	500	-
	Total	-	-	20	20	-	-	-	-	-	300	120	200	500	500	