

**HT\_ME-A\_III-II\_(2016-17)****Lesson Plan**

S NO	PERIOD	DATE	TOPIC	UNIT NO	TEACHING METHODOLOGY	REMARK
1	1	05/12/2016	Introduction: basic concepts, heat transfer in engineering	I	black board	
2	5,6	08/12/2016	mechanism of heat transfer, conduction, convection & radiation, temperature field and gradients	I	black board	
3	4	09/12/2016	combined mechanism of heat transfer- fourier law of heat conduction	I	black board	
4	1	12/12/2016	General differential eqn of heat conduction-special forms of heat conduction	I	black board	
5	5,6	15/12/2016	heat conduction eqn cylindrical coordinates 1-D, heat conduction eqn steady state conduction	I	black board	
6	4	16/12/2016	1-D, spherical coordinate system with temp distribution	I	black board	
7	5,6	19/12/2016	composite system plane wall cylinders wall-with thermal resistance	I	black board	
8	4	23/12/2016	numerical problems	I	black board	
9	1	26/12/2016	conduction with internal heat generation-introduction-systems with variable thermal conduction	II	black board	
10	5,6	29/12/2016	composite system plane, cylindrical system	II	PPT	
11	4	30/12/2016	critical radius of insulation cylinder, sphere	II	black board	
12	1,5,6	02/01/2017	extend surface governing eqn of fins-diff BC condition short, long, insulated	II	black board	
13	4	06/01/2017	temp distribution of fins -numerical problems	II	black board	
14	1	09/01/2017	transient heat conduction introduction system with negligible internal resistance lumped system	II	black board	
15	1	16/01/2017	response temp of a temp measuring instrument system with negligible surface resistance	II	black board	
16		19/01/2017	mid-I examinations			
17	1	23/01/2017	chart solutions for transient heat conduction heislers and grober chart	II	black board	
18	5,6	27/01/2017	numerical problems-by using chart -diff systems	II	black board	
19	1	30/01/2017	forced convection introduction to convection basic eqn-boundary layer concept	III	PPT	
20	5,6	02/02/2017	dimensional analysis -dimensional numbers	III	black board	
21	4	03/02/2017	parallel flow over flat plate -cylinder-spheres	III	black board	
22	1	06/02/2017	governing eqn, BL, thickness $\delta_t$ , relations correlations friction coefficient	III	black board	

23	5,6	09/02/2017	determine h.t.C by using exact solutions of equ Of B.C	III	black board	
24	4	10/02/2017	flow across the tube banks -internal flow fully developed flow in	III	black board	
25	1	13/02/2017	circular tubes-laminar flow	III	black board	
26	5,6	16/02/2017	turbulent flow ,entry region in laminar flow combined convection tube	III	black board	
27	5,6	17/02/2017	turbulent flow in tubes -non circulate tubes	III	black board	
28	1	20/02/2017	liquid metal	III	black board	
29	5,6	23/02/2017	natural convection -introduction -laminar B.L equ of vertical flat plate	IV	PPT	
30	4	24/02/2017	horizontal and inclined flat plates ,flow over cylinders	IV	PPT	
31	1	27/02/2017	correlation for natural convection	IV	PPT	
32		01/03/2017	mid -II examinations			
33	1	06/03/2017	boiling condensations-introduction-boiling heat transfer phenomena	IV	PPT	
34	5,6	09/03/2017	flow boiling -pool boiling region-correlations heat transfer	IV	PPT	
35	4	10/03/2017	nusselt theory of condensation	IV	black board	
36	5,6	16/03/2017	laminar film condensation turbulent film condensation	IV	black board	
37	4	17/03/2017	correlation -boiling & condensation	IV	black board	
38	1	20/03/2017	heat exchanger type overall h.t.c ,fouling factor	IV	black board	
39	5,6	23/03/2017	LMTD method of HE analysis	IV	black board	
40	4	24/03/2017	analysis simulation of HE radiation	IV	black board	
41	1	27/03/2017	basic concept nature of thermal radiation ,emissive power	V	black board	
42	5,6	30/03/2017	absorption,reflection & transmission laws of thermal radiations	V	black board	
43	4	31/03/2017	blackbody,radiations-grey body,radiations	V	black board	
44	1	03/04/2017	radiation shape factor radiation B/W two black bodies	V	black board	
45	5,6	06/04/2017	surface algebraic ,electrical analogy -radiation	V	black board	
46	4	07/04/2017	heat exchanger between grey bodies	V	black board	
47	1	10/04/2017	gas radiations	V	black board	
48			mid -III examinations			