

Lesson Planning				
Name of Faculty		: SAHIL		
Dicipline		: Mechanical Engg.		
Subject		: PM&MH		
Lesson Plan duration		: 48 Hours		
Work load (Lecture/Practical) per week (in hours):		4L		
Week	Lecture day	Theory	Teacher sign	HOD sign
		Topic(Including assignment/test)		
1	1	UNIT 1 : Introduction Necessity and advantages of testing, repair and maintenance		
	2	common instruments required for testing, significance of B-T curve in life span of machine tool		
	3	Acceptance test for machine tools, Economic aspects, manpower planning and materials management		
	4	Fits and tolerances – common fits and tolerances used for various machine parts		
2	5	UNIT 2 : Plant Layout, Erection and Commissioning of Machines Location, layout of machines in Plant Layout		
	6	Principles of Plant layout, types of plant layout and positioning of machines, grouping of machines		
	7	Foundation – types of foundation, various considerations for machine foundations, foundation plan		
	8	types of foundation bolts, erection and leveling, grouting		
3	9	Vibration, damping, vibration isolation		
	10	methods of isolation, anti vibration mounts		
	11	UNIT 3: Testing of Machines Testing equipment dial gauge, mandrel		
	12	Testing equipment spirit level, straight edge		
4	13	Testing equipment auto collimator		
	14	Recalibration of measuring instruments like vernier calliper		
	15	Testing methods		
5	16	geometrical/alignment test		
	17	performance test		
	18	testing under load,		
	19	run test, vibrations, noise		
6	20	Revision and Assignment		
	21	Sessional 1		
	22	UNIT 4: Maintenance Definition, advantages, limitations		
	23	types of maintenance organisation. Types of maintenance viz. emergency, preventive, breakdown/corrective, predictive		
7	24	Introduction to computerized maintenance record like facility register, maintenance request.		
	25	ISO standards for maintenance documentation		
	26	Introduction to machine history card – purpose and advantages		
	27	Preparation of scheduled yearly plan for preventive maintenance		
7	27	difference of work content of servicing, repairs and overhauling		
	28	MTBF and MTTR. Maintainability		

8	29	Spare parts- Need of frequently needed spare parts inventory		
	30	Make provision of spares for parts not available in market		
	31	UNIT 5: Repairing Common parts which are prone to failure		
	32	reasons of failure		
9	33	Repair schedule Parts that commonly need repair such as belts, couplings, nuts, and bolts		
	34	repairing the engines,		
	35	compressors		
	36	boilers.		
10	37	Revision		
	38	Class test		
	39	Assignment		
	40	Revision		
11	41	Sessional 2		
	42	UNIT 6: Lubrication Systems Lubrication methods		
	43	periodical lubrication chart for various machines (daily, weekly, monthly)		
	44	Handling and storage of lubricants		
12	45	Lubricants conditioning and disposal		
	46	Lubricant and their grades needed for gear		
	47	Lubricant and their grades needed for bearing		
	48	Lubricant and their grades needed for chains		
13	49	Purpose and procedure of changing oil periodically		
	50	UNIT 7: Material Handling Systems		
	51	Basic principles of material handling		
	52	Basic types of material handling equipments and its characteristic,		
14	53	Uses and limitations		
	54	forklift trucks		
	55	Selection of material handling equipment,		
	56	Unit load: pallet sizing and loading		
15	57	Conveyor models		
	58	AGV Systems		
	59	Automated Storage & Retrieval System (ASRS)		
	60	Carousels		
16	61	Revision sessional 1		
	62	Revision sessional 2		
	63	Assignment		
	64	Revision		