

Lesson Plan

Subject: HM & IFP (Th-3)

Name of faculty: Sangram Biswal

Semester: 5th

Class allotted: 4p/week

Branch: Mechanical


Session: 2023(W)

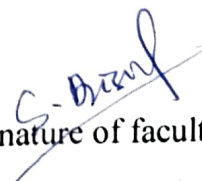
Discipline	Semester	From date:	To date:	Teaching Aid
Subject:	No. of days per week	Theory Practical Topics Lesson		
Week	Date Period			
1	01/08/2023 to	1.0 HYDRAULIC TURBINES. 1.1 Definition and classification of hydraulic turbines		White Board Marker
	05/08/2023	1.2 Construction and working principle of impulse turbine.		Smart board
		1.3 Velocity dig of moving blades, work done and derivation of various efficiencies of impulse turbine		
2	07/08/2023 to	Continue... 1.4 Velocity dig of moving blades, work done and derivation of various efficiencies of Francis turbine		White Board Marker
	12/08/2023	Continue... 1.5 Velocity dig of moving blades, work done and derivation of various efficiencies of Kaplan turbine		Smart board
3	14/08/2023 to	Continue... 1.6 Numerical on above		White Board Marker
	19/08/2023	Continue... Continue...		Smart board
4	21/08/2023 to	2.0 CENTRIFUGAL PUMPS 2.1 Construction and working principle of centrifugal pumps		White Board Marker
	26/08/2023	Continue... 2.2 work done and derivation of various efficiencies of centrifugal pumps.		Smart board
5	28/08/2023 to	Continue... 2.3 Numerical on above		White Board Marker
	02/09/2023	Continue... Continue...		Smart board
6	04/09/2023 to	3.0 RECIPROCATING PUMPS 3.1 Describe construction & working of single acting reciprocating pump.		White Board Marker
	09/09/2023	Continue... 3.2 Describe construction & working of double acting reciprocating pump.		Smart board
7	11/09/2023 to	Continue... Continue... 3.3 Derive the formula for power required to drive the pump (Single acting & double acting)		White Board Marker
	16/09/2023	Continue...		Smart board

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Week	Date/Period	Theory/ Practical – Topics/Lesson	Teaching Aid
8	18/09/2023	Continue...	White Board
	to	3.5 Define slip.	Marker
	23/09/2023	3.5 State positive & negative slip & establish relation between slip & coefficient of discharge.	Smart board
		Continue...	
9	25/09/2023	Continue...	White Board
	to	3.6 Solve numerical on above	Marker
	30/09/2023	Continue...	Smart board
		Continue...	
10	03/10/2023	4.0 PNEUMATIC CONTROL SYSTEM 4.1 Elements – filter-regulator-lubrication unit	White Board
	to	4.2 Pressure control valves	Marker
		4.2.1 Pressure relief valves	Smart board
	07/10/2023	4.2.2 Pressure regulation valves	
11	09/10/2023		
	to	Internal Exam	
	14/10/2023		
12	16/10/2023	4.3 Direction control valves	White Board
	to	4.3.1 3/2DCV, 5/2 DCV, 5/3DCV	Marker
	20/10/2023	4.3.2 Flow control valves	Smart board
		4.3.3. Throttle valves	
13	30/10/2023	4.4 ISO Symbols of pneumatic components	White Board
	to	4.5. Pneumatic circuits	Marker
	04/11/2023	4.5.1 Direct control of single acting cylinder	Smart board
		4.5.2 Operation of double acting cylinder	
14	06/11/2023	4.5.3 Operation of double acting cylinder with metering in and metering out control	White Board
	to	5.0 HYDRAULIC CONTROL SYSTEM 5.1 Hydraulic system, its merit and demerits	Marker
	11/11/2023	5.2 Hydraulic accumulators	Smart board
		5.2.1 Pressure control valves 5.2.2 Pressure relief valves 5.2.3 Pressure regulation valves	
15	13/11/2023	5.3 Direction control valves	White Board
	to	5.4 Fluid power pumps	Marker
	18/11/2023	5.4.1 External and internal gear pumps 5.4.2 Vane pump 5.4.3 Radial piston pumps	Smart board
		5.5 ISO Symbols for hydraulic components. 5.6 Actuators	


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Week	Date/Period	Theory/ Practical –Topics/Lesson	Teaching Aid
16	20/11/2023	5.7 Hydraulic circuits	White Board
	to	5.7.1 Direct control of single acting cylinder	Marker
	25/11/2023	5.7.2 Operation of double acting cylinder	Smart board
		5.7.3 Operation of double acting cylinder with metering in and metering out control	
17	28/11/2023	Revision...	White Board
	to	Revision...	Marker
	30/11/2023	Revision...	Smart board
		Revision...	


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