

**LESSON PLAN - WINTER 2023**  
**SWAMI VIVEKANANDA SCHOOL OF ENGINEERING & TECHNOLOGY, BBSR**

DISCIPLINE-	SEMESTER-5TH	NAME OF THE FACULTY: ER. Abhjit Chand	
SUBJECT- HM&IFP	NO. OF CLASS ALLOTTED/ PER	SEM. From date: 01.08.2023 TO 30.11.2023	No of weeks:19TH
WEEK	CLASS DAY	THEORY TOPIC	
1ST	1.08.2023	Hydraulic Turbines: Definition & classification of hydraulic turbines	
	2.08.2023	Impulse Turbine, Construction & working principle of impulse turbine	
	3.08.2023	Impulse Turbine, Construction & working principle of impulse turbine	
	4.08.2023	Velocity diagram of moving blades, work done of turbine	
	5.08.2023	Derivation of various efficiencies of impulse turbine	
2ND	7.08.2023	Derivation of various efficiencies of Francis turbine	
	9.08.2023	Derivation of various efficiencies of kaplan turbine	
	10.08.2023	Numerical Problems	
	11.08.2023	Numerical Problems	
3RD	14.08.2023	DO	
	16.08.2023	Distinguish between impulse turbine and reaction turbine	
	18.08.2023	Centrifugal Pumps, Construction and working principle	
4TH	21.08.2023	work done & derivation of various efficiencies of centrifugal pumps	
	22.08.2023	Numerical Problems	
	24.08.2023	Numerical Problems	
	25.08.2023	Working of Single Acting Reciprocating Pump	
5TH	28.08.2023	Working of Single Acting Reciprocating Pump	
	29.08.2023	Working of Double Acting Reciprocating Pump	
	30.08.2023	Working of Double Acting Reciprocating Pump	
6TH	1.09.2023	<b>Revision Class</b>	
7TH	4.09.2023	Derive the formula for power required to drive the pump (Single acting)	
	5.09.2023	Derive the formula for power required to drive the pump ( Double acting)	
	8.09.2023	Define Slip: state positive & negative slip and amp.	
	9.09.2023	Define Slip: state positive & negative slip and amp.	
8TH	11.09.2023	Establish relation between slip & coefficient of discharge	
	12.09.2023	Numerical Problems	
	13.09.2023	Numerical Problems	
	14.09.2023	Numerical Problems	
	15.09.2023	<b>Monthly Test</b>	
9TH	18.09.2023	Pneumatic Control System	
	21.09.2023	Pneumatic Control System (Filter, regulator, lubrication unit)	
	22.09.2023	Pressure control valves	
	23.09.2023	Pressure relief valves, pressure regulation valves	
10TH	25.09.2023	3/2 DCV, 5/2 DCV, 5/3 DCV	
	29.09.2023	Flow control valves, Throttle valves	
11TH	3.10.2023	Fluid power valves	
	5.10.2023	ISO Symbols for Pneumatic components.	
12TH	9.10.2023	<b>Internal Assessment</b>	
	11.10.2023	DO	
	13.10.2023	Hydraulic Control System: its merit and demerits	
13TH	17.10.2023	Hydraulic Control System: its merit and demerits	

	19.10.2023	Hydraulic accumulator of pressure control valves
14TH	28.10.2023	Hydraulic accumulator of pressure relief valves
15TH	3.11.2023	Hydraulic accumulator of pressure regulation valves
16TH	6.11.2023	Pressure regulation valves, Direction control valves
	8.11.2023	Hydraulic Control system in 3/2DCV, 5/2 DCV, 5/3 DCV
	10.11.2023	Hydraulic Control System of Flow control valves
17TH	14.11.2023	Hydraulic Control System of Throttle valves
	16.11.2023	Hydraulic Control System of Flow control valves
	18.11.2023	Hydraulic Control System of Fluid Power Pumps (Gear, Vane and Radial Pump)
18TH	22.11.2023	ISO Symbols for hydraulic components.
	24.11.2023	Actuators, Hydraulic circuits, direct control of single acting cylinder
	25.11.2023	operation of double acting cylinder
19TH	27.11.2023	Operation of double acting cylinder with metering in & metering out control
	29.11.2023	Comparison of hydraulic and pneumatic system
	30.11.2023	DO
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