

LESSON PLAN -2022
SWAMI VIVEKANANDA SCHOOL OF ENGINEERING & TECHNOLOGY, BBSR

DISCIPLINE- MECHANICAL	SEMESTER-5TH	NAME OF THE FACULTY:ABHIJIT CHANDA
SUBJECT- HM&IFP	NO. OF CLASS ALLOTTED/	SEM. From date: 15.9.2022 TO 22.12.2022 No of
WEEK	CLASS DAY	THEORY TOPIC
1ST WEEK	15.09.2022	Hydraulic Turbines: Definition & classification of hydraulic turbines
	16.09.2022	Construction & working principle of impulse turbine
	17.09.2022	Velocity diagram of moving blades, work done
2ND WEEK	19.09.2022	derivation of various efficiencies of impulse turbine
	20.09.2022	Velocity diagram of moving blades, work done
	21.09.2022	derivation of various efficiencies of Francis turbine
	22.09.2022	Velocity diagram of moving blades, work done
	23.09.2022	derivation of various efficiencies of Kaplan turbine
3rd week	26.09.2022	Numerical Problems
	27.09.2022	Distinguish between impulse turbine and reaction turbine
	28.09.2022	DO
	29.09.2022	DO
	30.09.2022	Centrifugal Pumps:
4th week	1.10.2022	Construction & working principle centrifugal pump.
	6.10.2022	work done & derivation of various efficiencies of centrifugal pumps
	7.10.2022	Numerical Problems
5th week	11.10.2022	Numerical Problems
	12.10.2022	Reciprocating Pumps:
	13.10.2022	Reciprocating Pumps:
	14.10.2022	Describe construction & working of single acting reciprocating pump
6th week	17.10.2022	Describe construction & working of single acting reciprocating pump
	18.10.2022	Describe construction & working of double acting reciprocating pump
	19.10.2022	Derive the formula for power required to drive the pump (single & double
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	21.10.2022	Define Slip: state positive & negative slip and amp.
7th week	26.10.2022	Define Slip: state positive & negative slip and amp.
	27.10.2022	Establish relation between slip & coefficient of discharge
	28.10.2022	Numerical Problems
	29.10.2022	Numerical Problems
8th week	31.10.2022	Numerical Problems
	2.11.2022	Elements- filter- regulator- lubrication unit, pressure control valves
	4.11.2022	pressure relief valves, pressure regulation valves, direction control valves
9th week	5.11.2022	3/2DCV, 5/2 DCV,5/3 DCV, Flow control valves, Throttle valves
	7.11.2022	ISO Symbols of pneumatics components, pneumatics circuits
	9.11.2022	Direct control of single acting cylinder,
	10.11.2022	Operation of double acting cylinder
9th week	11.11.2022	Operation of double acting cylinder with metering in & metering out control
	14.11.2022	DO

10th week	16.11.2022	DO
	17.11.2022	Hydraulic Control System: its merit and demerits
	18.11.2022	Hydraulic Control System: its merit and demerits
11th week	21.11.2022	Hydraulic accumulator, pressure control valves, pressure relief valves
	22.11.2022	Hydraulic accumulator, pressure control valves, pressure relief valves
	24.11.2022	Hydraulic accumulator, pressure control valves, pressure relief valves
	25.11.2022	Pressure regulation valves, Direction control valves
12th week	28.11.2022	3/2DCV, 5/2 DCV, 5/3 DCV
	29.11.2022	Flow control valves, Throttle valves, Fluid power valves
	30.11.2022	External and internal gear pumps
	2.12.2022	ISO Symbols for hydraulic components.
13th week	6.12.2022	Actuators, Hydraulic circuits, direct control of single acting cylinder
	7.12.2022	operation of double acting cylinder
14th week	13.12.2022	Operation of double acting cylinder with metering in & metering out control
	15.12.2022	Comparison of hydraulic and pneumatic system
15th week	21.12.2022	DO
	22.12.2022	DO