

HMIFP LESSION PLAN

Discipline :mechanical engineering	Semester : <u>5th</u>	<p style="text-align: center;">Name of the Teachnig Faculty : Miss BHAGYASHREE PATRA</p> <p style="text-align: center;">Semester From Date: 15th sep 2022 To Date: 22nd dec 2022</p>
Subject:Hydraulic Machines &Industrial Fluid Power	No.of days/Per weeks Class Alloted :4	
Weeks	Class day	Theory
3rd(sep-2022)	1st	Definition hydraulic turbines
	2nd	classification of hydraulic turbines
	3rd	Construction and working principle of impulse turbine
	4th	Velocity diagram of moving blades of pelton wheel
4th(sep-2022)	1st	work done and derivation of various efficiencies
	2nd	Numericals
	3rd	numericals
	4th	Construction and working principle of Reaction turbine
2nd (Oct-2022)	1st	CLASS TEST-1
	2nd	Velocity diagram of moving blades of Francis Turbine
	3rd	Numericals
	4th	Velocity diagram of moving blades of kaplan turbine
3rd (Oct-2022)	1st	Numericals
	2nd	Distinguish between impulse turbine and reaction turbine.
	3rd	Construction and working principle of centrifugal pumps
	4th	work done and derivation of various efficiencies of centrifugal pumps.
4th (Oct-2022)	1st	Numericals
	2nd	Numericals
	3rd	Describe construction & working of single acting reciprocating pump
	4th	Describe construction & working of double acting reciprocating pump.
1st (Nov-2022)	1st	State positive & negative slip & establish relation between slip & coefficient of discharge.
	2nd	Numericals
	3rd	Elements –filter-regulator-lubrication unit
	4th	Pressure control valves,Pressure relief valves
2nd (Nov-2022)	1st	CLASS TEST-2
	2nd	Pressure regulation valves

	3rd	3/2DCV,5/2 DCV,5/3DCV
	4th	Flow control valves
3rd (Nov-2022)	1st	INTERNAL ASSESSMENT
	2nd	INTERNAL ASSESSMENT
	3rd	INTERNAL ASSESSMENT
	4th	INTERNAL ASSESSMENT
4th (Nov-2022)	1st	Throttle valves
	2nd	ISO Symbols of pneumatic components
	3rd	Pneumatic circuits
	4th	Direct control of single acting cylinder
1st (Dec-2022)	1st	Operation of double acting cylinder
	2nd	metering in, meter out circuits
	3rd	Comparison of hydraulic and pneumatic system
	4th	Hydraulic accumulators
2nd (Dec-2022)	1st	Pressure control valves
	2nd	Pressure relief valves, Pressure regulation valves
	3rd	3/2DCV,5/2 DCV,5/3DCV
	4th	Flow control valves
3rd (Dec-2022)	1st	Throttle valves
	2nd	Fluid power pumps
	3rd	External gear pumps, internal gear pumps
	4th	Vane pump, Radial piston pumps
4th (Dec-2022)	1st	Actuators
	2nd	Direct control of single acting cylinder
	3rd	Operation of double acting cylinder
	4th	Operation of double acting cylinder with metering in and metering out control

Porter
B-Porter
(Text Mechanical)

