

LESS ON PLAN

Discipline : Mechanical Engg.	Semester : 5th	Name of the Teaching Faculty : Bhagyashree Patra(Lect. Mech)
Subject : HYDRAULIC MACHINES &INDUSTRIAL FLUID POWER LAB	No.of days/Per weeks Class Alloted Weeks :4	Semester From Date: 01.08.2023 To Date: 30.11.2023
Weeks	Class day	Practical
1st	1st	Performance test on impulse turbine and to find out the efficiency
	2nd	Performance test on impulse turbine and to find out the efficiency
2nd	1st	Performance test on impulse turbine and to find out the efficiency
	2nd	Performance test on Kaplan turbine and to find out the efficiency
3rd	1st	Performance test on Kaplan turbine and to find out the efficiency
	2nd	Performance test on Francis turbine and to find out the efficiency
4th	1st	Performance test on Francis turbine and to find out the efficiency
	2nd	Performance test on centrifugal pump and to find out the characteristic curves
5th	1st	Performance test on centrifugal pump and to find out the characteristic curves
	2nd	Direct operation of single &double acting pneumatic cylinder.
6th	1st	Direct operation of single &double acting pneumatic cylinder.
	2nd	Operating double acting pneumatic cylinder with quick exhaust valve
7th	1st	Operating double acting pneumatic cylinder with quick exhaust valve
	2nd	Speed control double acting pneumatic cylinder using metering in and metering out circuits.
8th	1st	Speed control double acting pneumatic cylinder using metering in and metering out circuits.
	2nd	Speed control double acting pneumatic cylinder using metering in and metering out circuits.
9th	1st	Direct operation of single &double acting hydraulic cylinder
	2nd	Direct operation of single &double acting hydraulic cylinder
10th	1st	Direct operation of single &double acting hydraulic cylinder
	2nd	Direct operation of hydraulic motor
11th	1st	Direct operation of hydraulic motor

	2nd	Speed control double acting hydraulic cylinder using metering in & metering out circuits.
12th	1st	Speed control double acting hydraulic cylinder using metering in & metering out circuits.
	2nd	Performance test on Kaplan turbine and to find out the efficiency
13th	1st	Direct operation of single & double acting pneumatic cylinder.
	2nd	Direct operation of single & double acting pneumatic cylinder.
14th	1st	Conducting performance test on impulse and reaction turbine
	2nd	Conducting performance test on impulse and reaction turbine
15th	1st	Checking Records.
	2nd	Checking Records.

Patra
 3007.23
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LESSION PLAN

Discipline : Mechanical Engg.	Semester : 5th	Name of the Teaching Faculty : Monalisha Behera(Sr.Lect.Mech)
Subject : CAD/CAM LAB	No.of days/Per weeks Class Alloted Weeks :4	Semester From Date: 01.08.2023 To Date: 30.11.2023
Weeks	Class day	Practical
1st	1st	To understand the fundamentals and use of CAD.
	2nd	To understand the fundamentals and use of CAD.
2nd	1st	To conceptualize drafting and modelling in CAD.
	2nd	To conceptualize drafting and modelling in CAD.
3rd	1st	To prepare CNC programmes for various jobs
	2nd	To prepare CNC programmes for various jobs
4th	1st	To synthesize various parts or components in an assembly
	2nd	To synthesize various parts or components in an assembly
5th	1st	Part modelling, Datum plane, Datum plane; constraint
	2nd	Part modelling, Datum plane, Datum plane; constraint
6th	1st	dimensioning; extrude; revolve; sweep
	2nd	dimensioning; extrude; revolve; sweep
7th	1st	protrusion; extrusion; rib; shell; hole; round; chamfer
	2nd	protrusion; extrusion; rib; shell; hole; round; chamfer
8th	1st	copy; mirror; assembly; align; orient
	2nd	copy; mirror; assembly; align; orient
9th	1st	2D Drawings of Rectangle, circle, polygon and its dimensioning
	2nd	2D Drawings of Rectangle, circle, polygon and its dimensioning
10th	1st	Drawings of; Gib and cutter joint ,Screw Jack; Connecting Rod; Bearing Block.
	2nd	Drawings of; Gib and cutter joint ,Screw Jack; Connecting Rod; Bearing Block.
11th	1st	Drawings of; Gib and cutter joint ,Screw Jack; Connecting Rod; Bearing Block.
	2nd	Print the orthographic view from the above assembled 3D drawing
12th	1st	Study of CNC lathe, milling;


	2nd	Study of international codes; G-Codes and M –Codes
13th	1st	Programme writing –Turning Simulator-Milling simulator IS practice-commands menus
	2nd	Programme writing –Turning Simulator-Milling simulator IS practice-commands menus
14th	1st	Editing the programme in the CNC MACHINES
	2nd	Execute the programme in the CNC machines
15th	1st	Checking Records.
	2nd	Checking Records.


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LESSON PLAN

Discipline : Mechanical Engg.	Semester : 5th	Name of the Teaching Faculty : Priyabrat Pradhan (PTGF)
Subject : REFRIGERATION AND AIR CONDITIONING LAB	No.of days/Per weeks Class Alloted Weeks :4	Semester From Date: 01.08.2023 To Date: 30.11.2023
Weeks	Class day	Practical
1st	1st	Study the construction features of Domestic Refrigerator
	2nd	Study the construction features of Domestic Refrigerator
2nd	1st	Determine the capacity and the COP of vapour compression refrigerator test rig.
	2nd	Determine the capacity and the COP of vapour compression refrigerator test rig.
3rd	1st	Determine the capacity and the COP of vapour compression refrigerator test rig.
	2nd	Determine the capacity and the COP of water cooler.
4th	1st	Determine the capacity and the COP of water cooler.
	2nd	Determine the capacity & COP of window air conditioner.
5th	1st	Determine the capacity & COP of window air conditioner.
	2nd	Determine the capacity & COP of split air conditioner.
6th	1st	Complete charging of a domestic refrigerator and its leak test.
	2nd	Complete charging of a domestic refrigerator and its leak test.
7th	1st	Study the construction of feature of domestic refrigerator.
	2nd	Study the construction of feature of domestic refrigerator.
8th	1st	Study the construction of feature of domestic refrigerator.
	2nd	Study the construction feature of water cooler.
9th	1st	Study the construction feature of water cooler.
	2nd	Study the construction feature of water cooler.
10th	1st	Study the construction feature of window A/C.
	2nd	Study the construction feature of window A/C.
11th	1st	Study the construction feature of window A/C.
	2nd	Study the construction feature of Split A/C.

12th	1st	Study the construction feature of Split A/C.
	2nd	Study the construction feature of Split A/C.
13th	1st	Determine the cop of refrigerating tutor.
	2nd	Determine the cop of refrigerating tutor.
14th	1st	Determine the cop of refrigerating tutor.
	2nd	Determine the cop of an AC tutor.
15th	1st	Determine the cop of an AC tutor.
	2nd	Determine the cop of an AC tutor.


 Priyabrata Priyadarshi Pradhan
 Dept Mechanical (PT94)


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