GOVERNMENT POLYTECHNIC JAJPUR

At/ Po: Ragadi, Block: Korei, Dist.: Jajpur, Odisha- 755019

DEPARTMENT OF MECHANICAL ENGINEERING LESSION PLAN (2021 - 22)

Discipline: Mechanical	Semester: 5th	Name of the Teaching faculty: Kedarnath Jena
Subject: HM&IFP LAB(Pr -2)	No of Days/Week class alloted:4	Semester starts from Date: 01/10/2021 To 31/01/2022 No of weeks:
Week	Class Day	Topics
		Performance test on impulse turbine and to find out the effiency
	1st (2p), Gr-1	(i) Aim of the exp. Theory of pelton wheel turbine and find out the efficiency.
		(ii) Details of turbine parts, machine handling and procedure.
	2nd(2p), Gr-1	Performance test on impulse turbine and to find out the effiency
1st		(i) Test for efficiency, Calculation, performance curve and.
		Performance test on impulse turbine and to find out the effiency
	3rd (2p), Gr-2	(i) Aim of the exp. Theory of pelton wheel turbine and find out the efficiency.
		(ii) Details of turbine parts, machine handling and procedure.
	4th(2p), Gr-2	Performance test on impulse turbine and to find out the effiency
	4th(2p), d1-2	(i) Test for efficiency, Calculation, performance curve.
	1st(2p), Gr-1	Performance test on impulse turbine and to find out the effiency
	131(2p), 01-1	(i) Record check and Viva.
		Performance test on impulse Kaplan and to find out the effiency
	2nd(2p), Gr-1	(i) Aim of the exp. Theory of Kaplan turbine.
2nd		(ii) Details of turbine parts, machine handling and procedure through videos.
	3rd(2p), Gr-2	Performance test on impulse turbine and to find out the effiency
	3. u(zp/) 3. z	(i) Record check and Viva.
	4th(2p), Gr-2	Performance test on kaplan turbine and to find out the effiency
		(i) Aim of the exp. Theory of Kaplan turbine.
		(ii) Details of turbine parts, machine handling and procedure through videos.
	1st(2p), Gr-1	Performance test on kaplan turbine and to find out the effiency
		(i) Record check and Viva.
		Performance test on Francis Turbine and find out the efficiency.
	2nd(2p), Gr-1	(i) Aim of the exp. Theory of Francis turbine and find out the efficiency.
3rd		(ii) Details of turbine parts, machine handling and procedure.
	3rd(2p), Gr-2	Performance test on kaplan turbine and to find out the effiency
		(i) Record check and Viva.
	41/2 \ 0.0	Performance test on Francis Turbine and find out the efficiency.
	4th(2p), Gr-2	(i) Aim of the exp. Theory of Francis turbine and find out the efficiency.
		(ii) Details of turbine parts, machine handling and procedure.
	1st(2p), Gr-1	Performance test on Francis Turbine and find out the efficiency.
		(i) Test for efficiency, Calculation, performance curve.
	2nd(2p), Gr-1	Performance test on Francis Turbine and find out the efficiency.
4th	3rd(2p), Gr-2	(i) Record check and Viva.
		Performance test on Francis Turbine and find out the efficiency.
	4th(2p), Gr-2	(i) Test for efficiency, Calculation, performance curve.
		Performance test on Francis Turbine and find out the efficiency.
		(i) Record check and Viva.
		Performance test on centrifugal pump and find out the characteristic curves.
	1st(2p), Gr-1	(i) Aim of the exp. Theory of centrifugal pump and characteristic curve.

		(ii) Details of pump parts, machine handling and procedure to take reading.
		Performance test on centrifugal pump and find out the characteristic curves.
5th	2nd(2p), Gr-1	Record check and viva.
		Performance test on centrifugal pump and find out the characteristic curves.
	3rd(2p), Gr-2	(i) Aim of the exp. Theory of centrifugal pump and characteristic curve.
	314(2), 31-2	
		(ii) Details of pump parts, machine handling and procedure to take reading.
	4th(2p), Gr-2	Performance test on centrifugal pump and find out the characteristic curves.
		Record check and viva.
		Direct operation of single & double acting pneumatic cylinder.
	1st(2p), Gr-1	i) Aim of the experiment.
		ii) Video animations showing how valve works.
		Direct operation of single & double acting pneumatic cylinder.
	2nd(2p), Gr-1	i) Operating single and double acting pneumatic cylinders in pneumatic trainer.
		ii) Circuit connection through valves.
6th		Direct operation of single & double acting pneumatic cylinder.
	3rd(2p), Gr-2	i) Aim of the experiment.
		ii) Video animations showing how valve works.
		Direct operation of single & double acting pneumatic cylinder.
	4th(2p), Gr-2	i) Operating single and double acting pneumatic cylinders in pneumatic trainer.
	(-1-7)	ii) Circuit connection through valves.
		Direct operation of single & double acting pneumatic cylinder.
	1st(2p), Gr-1	Record check and viva.
	2nd(2p), Gr-1	Speed control double acting pneumatic cylinder using metering in and metering out circcu i) Aim of the experiment.
		ii) Video animation metering in and metering out circuits.
7th		iii) Operating cylinders through metering in and metering out circuits in pneumatic trainer
	3rd(2p), Gr-2	Direct operation of single & double acting pneumatic cylinder.
		Record check and viva.
		Speed control double acting pneumatic cylinder using metering in and metering out circcu
	4th(2p), Gr-2	i) Aim of the experiment.
		ii) Video animation metering in and metering out circuits.
		iii) Operating cylinders through metering in and metering out circuits in pneumatic trainer.
	4-1/2 \ 6 4	Speed control double acting pneumatic cylinder using metering in and metering out circcui
	1st(2p), Gr-1	i) Circuit connections through metering in & metering out valves.
	2nd(2p), Gr-1	Speed control double acting pneumatic cylinder using metering in and metering out circcui
		i) record check and viva.
8th		1) record effect and street
	3rd(2p), Gr-2	Speed control double acting pneumatic cylinder using metering in and metering out circcui
		i) Circuit connections through metering in & metering out valves.
	4th(2p), Gr-2	Speed control double acting pneumatic cylinder using metering in and metering out circcui
		i) record check and viva.
		Direct operation of single and double acting hydrauliccylinder.
	1st(2n) Gr-1	i) Aim of the experiment.
	1st(2n), Gr-1	III AIM OI the experiment.
	1st(2p), Gr-1	
		ii) Video animation showing hoe hydraulic valves works.
	1st(2p), Gr-1 2nd(2p), Gr-1	

	3rd(2p), Gr-2	i) Aim of the experiment.
		ii) Video animation showing hoe hydraulic valves works.
	4th(2p), Gr-2	Direct operation of single and double acting hydraulic cylinder.
	-	i) Operating single and double acting hydraulic cylinder in hydraulic trainer.
10th		Direct operation of single and double acting hydraulic cylinder.
	1st(2p), Gr-1	i) Circuit connection through valves.
		ii) Record check and viva.
	2nd(2p), Gr-1	Direct operation of hydraulic motor.
		i) Aim of the experiment.
		ii) Video animation showing how hydraulic motor works.
10111	3rd(2p), Gr-2	Direct operation of single and double acting hydraulic cylinder.
		i) Circuit connection through valves.
		ii) Record check and viva.
	4th(2p), Gr-2	Direct operation of hydraulic motor.
		i) Aim of the experiment.
		ii) Video animation showing how hydraulic motor works.
		Direct operation of hydraulic motor.
	1st(2p), Gr-1	i) Operating single & double acting hydraulic cylinders in hydraulic trainer.
		ii) Circuit connection through various valves.
		Direct operation of hydraulic motor.
	2nd(2p), Gr-1	i) record check and viva.
11th		Direct operation of hydraulic motor.
	3rd(2p), Gr-2	i) Operating single & double acting hydraulic cylinders in hydraulic trainer.
		ii) Circuit connection through various valves.
	4th(2p), Gr-2	Direct operation of hydraulic motor.
		i) record check and viva.
	1st(2p), Gr-1	Speed control double acting hydraulic cylinder using metering in and metering out circcui
		i) Aim of the experiment.
		ii) Video animations showing metering in & metering out circuits.
	2nd(2p), Gr-1	Speed control double acting hydraulic cylinder using metering in and metering out circcuit
		i) Operating cylinders through metering in & metering out circuits in trainer.
		ii) Circuit connections through valves.
12th		
	3rd(2p), Gr-2	Speed control double acting hydraulic cylinder using metering in and metering out circcuit
	314(2p), 41-2	i) Aim of the experiment.
		ii) Video animations showing metering in & metering out circuits.
		Speed control double acting hydraulic cylinder using metering in and metering out circcuit
	4th(2p), Gr-2	i) Operating cylinders through metering in & metering out circuits in trainer.
		ii) Circuit connections through valves.
		n) circuit connections through vaves.
		Speed control double acting hydraulic cylinder using metering in and metering out circcuit
	1st(2p), Gr-1	i) Record check & viva.
40.1	2nd(2p), Gr-1	Double clearing, remedial and left out practicals
13th	3rd(2p), Gr-2	Considerated double acting bodes. Provider
		Speed control double acting hydraulic cylinder using metering in and metering out circcuit
		i) Record check & viva.
	4th(2p), Gr-2	Double clearing, remedial and left out practicals
	1st(2p), Gr-1	Double clearing, remedial and left out practicals

14th	2nd(2p), Gr-1	Double clearing, remedial and left out practicals
	3rd(2p), Gr-2	Double clearing, remedial and left out practicals
	4th(2p), Gr-2	Double clearing, remedial and left out practicals
	1st(2p), Gr-1	Double clearing, remedial and left out practicals
15th	2nd(2p), Gr-1	Viva on overall.
1501	3rd(2p), Gr-2	Double clearing, remedial and left out practicals
	4th(2p), Gr-2	Viva on overall.

Signature of Faculty