GOVERNMENT POLYTECHNIC JAJPUR

A/ P: Ragadi, Block: Korei, Dist.: Jajpur, Odisha- 755019

Website: https://www.gpjajpur.org E-mail: principalgpjajpur@yahoo.co.in Contact: 9437155107

DEPARTMENT OF MECHANICAL ENGINEERING LESSON PLAN

Discipline: Mechanical	Semester: 4th	Name of the Teaching faculty: Manas Kumar Mishra	
Subject: TOM LAB	No of Days/Week class alloted: 5	Semester from Date: 14/02/23 No of weeks: 15	To Date: 23/05/23
Week	Class Day	Topics	
		LESSON PLAN, ASSESSMENT SCHEME, Cos, Exams.	
	1st(2p, Gr 2)	Determination of centrifugal force of a governor (Hart Nell	/ Watt/Porter).
		i) Aim of the expt, theory, procedure	
		ii) Tools and equipments required	
		iii) setting of different types of governors (Hartnell, watt and	l porter)
		LESSON PLAN, ASSESSMENT SCHEME, Cos, Exams.	
		Determination of centrifugal force of a governor (Hart Nell	/ Watt/Porter).
1st	2nd(2p, Gr 1)	i) Aim of the expt, theory, procedure	
130		ii) Tools and equipments required	
		iii) setting of different types of governors (Hartnell, watt and	l porter)
		Determination of centrifugal force of a governor (Hart Nell	/ Watt/Porter).
	2 1/2 5 4 5 5 2)	i) How to take readings for each type of governor(Demo)	
	3rd(2p, Gr 1 & Gr 2)	ii) Machine handling and precautions	
		iii) Setting, observations	
	4th(2p, Gr 2)	Determination of centrifugal force of a governor (Hart Nell	/ Watt/Porter).
		i) Tabulation and calculations for centrifugal force by studer	nts
	1st(2p, Gr 1)	Determination of centrifugal force of a governor (Hart Nell	/ Watt/Porter).
	131(2), 01 1)	i) Tabulation and calculations for centrifugal force by studer	
	2nd(2n Gr 2)	Determination of centrifugal force of a governor (Hart Nell	
	2nd(2p, Gr 2)	i) Tabulation and calculations for centrifugal force by studer	
	2-d/2- C+1)	Determination of centrifugal force of a governor (Hart Nell	
and	3rd(2p, Gr 1)	i) Tabulation and calculations for centrifugal force by studer	
2nd	4th(2p, Gr 1 & Gr 2)	Determination of centrifugal force of a governor (Hart Nell	/ Watt/Porter).
		i) Record submission	
		ii) Viva, assessment	
		Study & demonstration of static balancing apparatus.	
	5th (2p, Gr 2)	i) Aim of the expt, theory, procedure	
		ii) Tools and equipments required	
		Study & demonstration of static balancing apparatus.	
	1st(2p, Gr 1)	i) Aim of the expt, theory, procedure	
8		ii) Tools and equipments required	
	2nd(2p, Gr 2)	Study & demonstration of static balancing apparatus.	
		i) Machine handling and precautions	
		ii) Taking readings and calculation by students	
3rd	3rd(2p, Gr 1)	Study & demonstration of static balancing apparatus.	
		i) Machine handling and precautions ii) Taking readings and calculation by students	

		Study & demonstration of static balancing apparatus.
	4th(2p, Gr 1 & Gr 2	i) Taking readings and calculation by students
	5th (2p, Gr 2)	Study & demonstration of static balancing apparatus.
		i) Taking readings and calculation by students
	1st(2p, Gr 1)	Study & demonstration of static balancing apparatus.
		i) Taking readings and calculation by students
		Study & demonstration of static balancing apparatus.
	2nd(2p, Gr 2)	i) Viva, record submission and checking
		ii) Assessment
		Study & demonstration of static balancing apparatus.
4th	3rd(2p, Gr 1)	i) Viva, record submission and checking
4111		ii) Assessment
		Study & demonstration of journal bearing apparatus.
	4th(2p, Gr 1 & Gr 2)	i) Aim of the expt, theory, procedure
		ii) Tools and equipments required
		Study & demonstration of journal bearing apparatus.
	5th (2p, Gr 2)	i) Observations and calculation by students
		ii) Study of different types of journal bearings
		Study & demonstration of journal bearing apparatus.
	1st(2p, Gr 1)	i) Observations and calculation by students
		ii) Study of different types of journal bearings
		Study & demonstration of journal bearing apparatus.
	2nd(2p, Gr 2)	i) Study of different types of journal bearings
		Study & demonstration of journal bearing apparatus.
	3rd(2p, Gr 1)	i) Study of different types of journal bearings
5th		Study & demonstration of journal bearing apparatus.
	4th(2p, Gr 1 & Gr 2)	i) Viva, record submission and checking
		ii) Assessment
		Study of different types of Cam and followers
		i) Aim of the expt, theory, procedure
	5th (2p, Gr 2)	ii) Tools and equipments required
		iii) Animations and videos of cams and followers
		Study of different types of Cam and followers
		i) Aim of the expt, theory, procedure
	1st(2p, Gr 1)	ii) Tools and equipments required
		iii) Animations and videos of cams and followers
		Study of different types of Cam and followers
	2nd(2p, Gr 2)	i) Demonstration of experiment
		i) Study of different types of Cam and followers
6th		Study of different types of Cam and followers
	3rd(2p, Gr 1)	i) Demonstration of experiment
<i>.</i>) Study of different types of Cam and followers
	A46/2# C= 1 0 C= 21	Study of different types of Cam and followers
	4th(2p, Gr 1 & Gr 2)) Study of different types of Cam and followers
		Study of different types of Cam and followers
	5th (2p, Gr 2)) viva, record submission and checking
		i) Assessment

	1 1	Study of different types of Cam and followers i) viva, record submission and checking
	15t(2p, Gr 1)	
		ii) Assessment
	1	Study & demonstration of epicyclic gear train.
7th	1 2nd(2n, Gr 2) 1	i) Aim of the expt, theory
		ii) Tools and equipments required
		iii) Procedure
	3rd(2p, Gr 1)	Study & demonstration of epicyclic gear train.
		i) Aim of the expt, theory
		ii) Tools and equipments required
		iii) Procedure
	4th(2p, Gr 1 & Gr 2)	Study & demonstration of epicyclic gear train.
	4th(2p, 01 1 d 01 2)	i) Observations and calculation of parameters by students
	5th (2p, Gr 2)	Study & demonstration of epicyclic gear train.
	3th (2p, Gr 2)	i) Observations and calculation of parameters by students
	1st(2p, Gr 1)	Study & demonstration of epicyclic gear train.
	15t(2p, Gr 1)	i) Observations and calculation of parameters by students
	2nd/2n Cr 2\	Study & demonstration of epicyclic gear train.
	2nd(2p, Gr 2)	i) Observations and calculation of parameters by students
	2rd/2n (r.1)	Study & demonstration of epicyclic gear train.
8th	3rd(2p, Gr 1)	i) Observations and calculation of parameters by students
otn		Study & demonstration of epicyclic gear train.
	4th(2p, Gr 1 & Gr 2)	i) viva, record submission and checking
		ii) Assessment
		Determination of the thickness of ground M.S flat using Vernier Caliper.
	5th (2p, Gr 2)	i) Aim of the expt, theory, parts of a Vernier caliper
		ii) How to find least count
		Determination of the thickness of ground M.S flat using Vernier Caliper.
	1st(2p, Gr 1)	i) Aim of the expt, theory, parts of a Vernier caliper
		ii) How to find least count
		Determination of the thickness of ground M.S flat using Vernier Caliper.
	2-1/2- (-2)	i) precautions
	2nd(2p, Gr 2)	ii) handling and practice of taking readings using Vernier Caliper
		iii) Observations and calculation of thickness of a MS flat by students
9th		Determination of the thickness of ground M.S flat using Vernier Caliper.
	2 1/2 5 1)	i) precautions
	3rd(2p, Gr 1)	ii) handling and practice of taking readings using Vernier Caliper
		iii) Observations and calculation of thickness of a MS flat by students
	4th(2p, Gr 1 & Gr 2)	Determination of the thickness of ground M.S flat using Vernier Caliper.
		i) Observations and calculation of thickness of a MS flat by students
	5th (2p, Gr 2)	Determination of the thickness of ground M.S flat using Vernier Caliper.
		i) Observations and calculation of thickness of a MS flat by students
	1st(2p, Gr 1)	Determination of the thickness of ground M.S flat using Vernier Caliper. i) Observations and calculation of thickness of a MS flat by students
	2nd(2p, Gr 2)	
		Determination of the thickness of ground M.S flat using Vernier Caliper. i) viva, record submission and checking
		ii) Assessment

		Determination of the thickness of ground M.S flat using Vernier Caliper.
	3rd(2p, Gr 1)	i) viva, record submission and checking
.Oth		ii) Assessment
Oth		Determination of diameter of a cylindrical component using micrometer
	4th(2p, Gr 1 & Gr 2)	i) Aim of the expt, theory, parts of a micrometer
	4.11(2p, 01 1 & 01 2)	ii) How to find least count
		iii) Procedure to measure diameter of a cylindrical component (Demo)
		Determination of diameter of a cylindrical component using micrometer
	5+h /2 - C - 2)	i) Precautions
	5th (2p, Gr 2)	ii) Handling and practice
		iii) Observations and calculation of dia by students
		Determination of diameter of a cylindrical component using micrometer
		i) Precautions
	1st(2p, Gr 1)	ii) Handling and practice
		iii) Observations and calculation of dia by students
	2 1/2	Determination of diameter of a cylindrical component using micrometer
	2nd(2p, Gr 2)	i) Observations and calculation of dia by students
	0.1/2	Determination of diameter of a cylindrical component using micrometer
l1th	3rd(2p, Gr 1)	i) Observations and calculation of dia by students
		Determination of diameter of a cylindrical component using micrometer
	4th(2p, Gr 1 & Gr 2)	i) viva, record submission and checking
		ii) Assessment
		Determine the heights of gauge blocks or parallel bars using Vernier height gauge.
		i) Aim of the expt, theory, parts of a height gauge
	5th (2p, Gr 2)	ii) How to find least count
		iii) Procedure to measure height (Demo)
		Determine the heights of gauge blocks or parallel bars using Vernier height gauge.
		i) Aim of the expt, theory, parts of a height gauge
	1st(2p, Gr 1)	ii) How to find least count
		iii) Procedure to measure height (Demo)
		Determine the heights of gauge blocks or parallel bars using Vernier height gauge.
		i) Precautions
	2nd(2p, Gr 2)	ii) Handling and practice
		iii) Observations and calculation of height by students using height gauge
2th		Determine the heights of gauge blocks or parallel bars using Vernier height gauge.
		i) Precautions
	3rd(2p, Gr 1)	ii) Handling and practice
		iii) Observations and calculation of height by students using height gauge
		Determine the heights of gauge blocks or parallel bars using Vernier height gauge.
	4th(2p, Gr 1 & Gr 2)	
		i) Observations and calculation of height by students using height gauge
	5th (2p, Gr 2)	Determine the heights of gauge blocks or parallel bars using Vernier height gauge.
		i) viva, record submission and checking ii) Assessment
		Determine the heights of gauge blocks or parallel bars using Vernier height gauge.
	I	
		i) viva, record submission and checking

		Determine the thickness of ground MS plates using slip gauges.
		Aim of the expt, theory
		ii) Slip gauges
		iii) Procedure and Demonstration of experiment
		Determine the thickness of ground MS plates using slip gauges.
13th	3rd(2p, Gr 1)	i) Aim of the expt, theory
		ii) Slip gauges
		iii) Procedure and Demonstration of experiment
		Determine the thickness of ground MS plates using slip gauges.
	1	
	4th(2p, Gr 1 & Gr 2)	
		ii) Observations and calculation of thickness by students using slip gauges.
		tes the college sugges
	5th (2p, Gr 2)	Determine the thickness of ground MS plates using slip gauges.
		i) Observations and calculation of thickness by students using slip gauges.
	1st(2p, Gr 1)	Determine the thickness of ground MS plates using slip gauges.
		i) Observations and calculation of thickness by students using slip gauges.
	2nd/2n Gr 21	Determine the thickness of ground MS plates using slip gauges.
	2nd(2p, Gr 2)	i) viva, record submission and checking
		Determine the thickness of ground MS plates using slip gauges.
	3rd(2p, Gr 1)	i) viva, record submission and checking
14th		Determination of angel of Machined surfaces of components using sin bar with slip
	446/20 6518 6521	gauges.
	4th(2p, Gr 1 & Gr 2)	I) Aim of the expt, theory
		ii) how to use sine bars and slip gauges (Demo)
		Determination of angel of Machined surfaces of components using sin bar with slip
	5th (2p, Gr 2)	gauges.
		i) Observations and calculation by students Determination of angel of Machined surfaces of components using sin bar with slip
	1-1/2- (-1)	
	1st(2p, Gr 1)	i) Observations and calculation by students
		Determination of angel of Machined surfaces of components using sin bar with slip
	2nd(2p, Gr 2)	gauges.
	2πα(2μ, στ 2)	i) Observations and calculation by students
		Determination of angel of Machined surfaces of components using sin bar with slip
15th	3rd(2p, Gr 1)	gauges.
		i) Observations and calculation by students
	4th(2p, Gr 1 & Gr 2)	Determination of angel of Machined surfaces of components using sin bar with slip
		gauges.
		i) viva, record submission and checking
		ii) Assessment
	5th (2p, Gr 2)	Left out experiments/ Lab Test/Viva

Faculty Signature

M.K. Michan

(leet, neel)