GOVERNMENT P OLYTECHNIC JAJPUR
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DEPARTMENT OF ME CHANICAL ENGINEERING

LESSON PLAN

Discipline: Mechanical	Semester: 4th	Name of the Teaching faculty: RUTUPARNA SWAIN
Subject: TOM & M LAB	No of Days/Week class alloted: 5	Semester starts from Date: 16.01.2024 To 26/04/2024 No of weeks: **15**
Week	**Class Day**	**Topics**
1st	1st (3p, Gr 1)	LESSON PLAN, ASSESSMENT SCHEME, Cos, Exams.
		Determination of centr fugal force of a governor **(Hart Nell / Watt/Porter).**
		i) Aim of the expt, theo y, procedure
		ii) Tools and equipment s required
		iii) setting of different t pes of governors (Hartnell, watt and porter)
	2nd (3p, Gr 1)	Determination of centr fugal force of a governor **(Hart Nell / Watt/Porter).**
		i) How to take readings for each type of governor(Demo)
		ii) Machine handling an precautions
		iii) Setting, observation
2nd	1st (3p, Gr 1)	Determination of centr fugal force of a governor **(Hart Nell / Watt/Porter).**
		i) Tabulation and calcu ations for centrifugal force by students
	2nd (3p, Gr 1)	Determination of centr fugal force of a governor **(Hart Nell / Watt/Porter).**
		i) Record submission
		ii) Viva, assessment
3rd	1st(3p, Gr 1)	**Study & demonstratior of static balancing apparatus.**
		i) Aim of the expt, theo y, procedure
		ii) Tools and equipmen s required
	2nd (3p, Gr 1)	Study & demonstratior of static balancing apparatus.
		i) Machine handling an precautions
		ii) Taking readings and alculation by students
4th	1st (3p, Gr 1)	**Study & demonstratior of static balancing apparatus.**
		i) Viva, record submissi n and checking
		ii) Assessment
	2nd (3p, Gr 1)	**Study & demonstratior of journal bearing apparatus.**
		i) Aim of the expt, theo y, procedure
		ii) Tools and equipment s required
5th	1st (3p, Gr 1)	**Study & demonstratior of journal bearing apparatus.**
		i) Observations and cal ulation by students
		ii) Study of different ty es of journal bearing
	2nd (3p, Gr 1)	**Study & demonstratior of journal bearing apparatus.**
		i) Viva, record submissi n and checking
		ii) Assessment
6th	1st(3p, Gr 1)	Study of different type **of Cam and followe s**
		i) Aim of the expt, theo y, procedure
		ii) Tools and equipment s required
		iii) Animations and vide os of cams and followers
		Study of different type of Cam and followe s

	2nd (3p, Gr 1)	i) Demonstration of experiment
		ii) Study of different types of Cam and followers
7th	1st (3p, Gr 1)	**Study of different types of Cam and followers**
		i) viva, record submission and checking
		ii) Assessment
	2nd (3p, Gr 1)	**Study & demonstration of epicyclic gear train.**
		i) Aim of the expt, theory
		ii) Tools and equipments required
		iii) Procedure
		iv) Observations and calculation of parameters by students
8th	1st (3p, Gr 1)	**Study & demonstration of epicyclic gear train.**
		i) viva, record submission and checking
		ii) Assessment
	2nd (3p, Gr 1)	**Determination of the thickness of ground M.S flat using Vernier Caliper.**
		i) Aim of the expt, theory, parts of Vernier caliper
		ii) How to find least count
9th	1st (3p, Gr 1)	**Determination of the thickness of ground M.S flat using Vernier Caliper**
		i) precautions
		ii) Handling and practice of taking readings using Vernier Caliper
		iii) Observations and calculation of thickness of a MS flat by students
	2nd (3p, Gr 1)	**Determination of the thickness of ground M.S flat using Vernier Caliper.**
		i) viva, record submission and checking
		ii) Assessment
10th	1st (3p, Gr 1)	**Determination of diameter of a cylindrical component using micrometer**
		i) Aim of the expt, theory, parts of micrometer
		ii) How to find least count
		iii) Procedure to measure diameter of a cylindrical component (Demo)
	2nd (3p, Gr 1)	**Determination of diameter of a cylindrical component using micrometer**
		i) Precautions
		ii) Handling and practice
		iii) Observations and calculation of dia by students
11th	1st (3p, Gr 1)	**Determination of diameter of a cylindrical component using micrometer**
		i) viva, record submission and checking
		ii) Assessment
	2nd (3p, Gr 1)	**Determine the heights of gauge blocks or parallel bars using Vernier height gauge.**
		i) Aim of the expt, theory, parts of height gauge
		ii) How to find least count
		iii) Procedure to measure height (Demo)
12th	1st (3p, Gr 1)	**Determine the heights of gauge blocks or parallel bars using Vernier height gauge.**
		i) Precautions
		ii) Handling and practice
		iii) Observations and calculation of height by students using height gauge
	2nd (3p, Gr 1)	**Determine the heights of gauge blocks or parallel bars using Vernier height gauge.**
		i) viva, record submission and checking
		ii) Assessment
	1st (3p, Gr 1)	**Determine the thickness of ground MS plates using slip gauges.**
		i) Aim of the expt, theory

13th		i) Safety
		ii) Procedure and Demonstration of experiment
	3rd (3p, Gr 1)	**Determine the thickness of ground MS plates using slip gauges.**
		iii) Precautions
		iv) Observations and calculation of thickness by students using slip gauges
14th	1st (3p, Gr 1)	**Determine the thickness of ground MS plates using slip gauges.**
		v) viva, record submission and checking
	2nd (2p, Gr 1)	**Determination of angle of Machined surfaces of components using sin bar with slip gauges**
		i) Need of the expt, theory
		ii) Various Sine bars and slip gauges (Demo)
15th	1st (3p, Gr 1)	**Determination of angle of Machined surfaces of components using sin bar with slip gauges.**
		iii) Observations and calculation by students
	2nd (2p, Gr 1)	**Determination of angle of Machined surfaces of components using sin bar with slip gauges.**
		iv) viva, record submission and checking
		vi) Assessment

13/10/2024

Faculty Signature