GOVERNMENT POLYTECHNIC JAJPUR
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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: 2**	**Semester from Date: To Date: No of weeks:**
Week	**Class Day**	**Topics**
1st	1st(3p, Gr 1)	LESSON PLAN, ASSESSMENT SCHEME, Cos, Exams.
		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 porter)
	1st(3p, Gr 2)	LESSON PLAN, ASSESSMENT SCHEME, Cos, Exams.
		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 porter)
	2nd(3p, Gr 1)	**Determination of centrifugal force of a governor (Hart Nell / Watt/Porter).**
		i) How to take readings for each type of governor(Demo)
		ii) Machine handling and precautions
		iii) Setting, observations, tabulation and calculations for centrifugal force by students
	2nd(3p, Gr 2)	**Determination of centrifugal force of a governor (Hart Nell / Watt/Porter).**
		i) How to take readings for each type of governor(Demo)
		ii) Machine handling and precautions
		iii) Setting, observations, tabulation and calculations for centrifugal force by students
2nd	1st(3p, Gr 1)	**Determination of centrifugal force of a governor (Hart Nell / Watt/Porter).**
		i) Observations and calculation, plotting necessary graphs
		ii) Record submission
		iii) Viva, assessment
	1st(3p, Gr 2)	**Determination of centrifugal force of a governor (Hart Nell / Watt/Porter).**
		i) Observations and calculation, plotting necessary graphs
		ii) Record submission
		iii) Viva, assessment
	2nd(3p, Gr 1)	**Study & demonstration of static balancing apparatus.**
		i) Aim of the expt, theory, procedure
		ii) Tools and equipments required
		iii) setting of machine and demo
	2nd(3p, Gr 2)	**Study & demonstration of static balancing apparatus.**
		i) Aim of the expt, theory, procedure
		ii) Tools and equipments required
		iii) Setting of machine and demo
3rd	1st(3p, Gr 1)	**Study & demonstration of static balancing apparatus.**
		i) Machine handling and precautions
		ii) Taking readings and calculation by students
	1st(3p, Gr 2)	**Study & demonstration of static balancing apparatus.**
		i) Machine handling and precautions
		ii) Taking readings and calculation by students
		Study & demonstration of static balancing apparatus.

	2nd(3p, Gr 1)	i) Viva, record submission and checking
		ii) Assessment
	2nd(3p, Gr 2)	**Study & demonstration of static balancing apparatus.**
		i) Viva, record submission and checking
		ii) Assessment
4th	1st(3p, Gr 1)	**Study & demonstration of journal bearing apparatus.**
		i) Aim of the expt, theory, procedure
		ii) Tools and equipments required
		iii) Demonstration to conduct practical
	1st(3p, Gr 2)	**Study & demonstration of journal bearing apparatus.**
		i) Aim of the expt, theory, procedure
		ii) Tools and equipments required
		iii) Demonstration to conduct practical
	2nd(3p, Gr 1)	**Study & demonstration of journal bearing apparatus.**
		i) Observations and calculation by students
		ii) Study of different types of journal bearings
	2nd(3p, Gr 2)	**Study & demonstration of journal bearing apparatus.**
		i) Observations and calculation by students
		ii) Study of different types of journal bearings
5th	1st(3p, Gr 1)	**Study & demonstration of journal bearing apparatus.**
		i) viva, record submission and checking
		ii) Assessment
	1st(3p, Gr 2)	**Study & demonstration of journal bearing apparatus.**
		i) viva, record submission and checking
		ii) Assessment
	2nd(3p, Gr 1)	**Study of different types of Cam and followers**
		i) Aim of the expt, theory, procedure
		ii) Tools and equipments required
		iii) Animations and videos of cams and followers
	2nd(3p, Gr 2)	**Study of different types of Cam and followers**
		i) Aim of the expt, theory, procedure
		ii) Tools and equipments required
		iii) Animations and videos of cams and followers
6th	1st(3p, Gr 1)	**Study of different types of Cam and followers**
		i) Demonstration of experiment
		ii) Study of different types of Cam and followers
	1st(3p, Gr 2)	**Study of different types of Cam and followers**
		i) Demonstration of experiment
		ii) Study of different types of Cam and followers
	2nd(3p, Gr 1)	**Study of different types of Cam and followers**
		i) viva, record submission and checking
		ii) Assessment
	2nd(3p, Gr 2)	**Study of different types of Cam and followers**
		i) viva, record submission and checking
		ii) Assessment
	1st(3p, Gr 1)	**Study & demonstration of epicyclic gear train.**
		i) Aim of the expt, theory
		ii) Tools and equipments required
		iii) Procedure
	1st(3p, Gr 2)	**Study & demonstration of epicyclic gear train.**
		i) Aim of the expt, theory

7th	1st(3p, Gr 2)	ii) Tools and equipments required
		iii) Procedure
	2nd(3p, Gr 1)	**Study & demonstration of epicyclic gear train.**
		i) Setting of machine and demonstration
		ii) Observations and calculation of parameters by students
	2nd(3p, Gr 2)	**Study & demonstration of epicyclic gear train.**
		i) Setting of machine and demonstration
		ii) 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
	1st(3p, Gr 2)	**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 a Vernier caliper
		ii) How to find least count
		iii) Procedure to measure thickness of a flat plate (demo)
	2nd(3p, Gr 2)	**Determination of the thickness of ground M.S flat using Vernier Caliper.**
		i) Aim of the expt, theory, parts of a Vernier caliper
		ii) How to find least count
		iii) Procedure to measure thickness of a flat plate (demo)
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
	1st(3p, Gr 2)	**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
	2nd(3p, Gr 2)	**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 a micrometer
		ii) How to find least count
		iii) Procedure to measure diameter of a cylindrical component (Demo)
	1st(3p, Gr 2)	**Determination of diameter of a cylindrical component using micrometer**
		i) Aim of the expt, theory, parts of a 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
	2nd(3p, Gr 2)	**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
	1st(3p, Gr 2)	**Determination of diameter of a cylindrical component using micrometer**
		i) viva, record submission and checking
		ii) Assessment
	1st(3p, Gr 1)	**Determine the heights of gauge blocks or parallel bars using Vernier height gauge.**
		i) Aim of the expt, theory, parts of a height gauge
		ii) How to find least count
		iii) Procedure to measure height (Demo)
	1st(3p, Gr 2)	**Determine the heights of gauge blocks or parallel bars using Vernier height gauge.**
		i) Aim of the expt, theory, parts of a 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
	1st(3p, Gr 2)	**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
	2nd(3p, Gr 2)	**Determine the heights of gauge blocks or parallel bars using Vernier height gauge.**
		i) viva, record submission and checking
		ii) Assessment
13th	1st(3p, Gr 1)	**Determine the thickness of ground MS plates using slip gauges.**
		i) Aim of the expt, theory
		ii) Slip gauges
		iii) Procedure and Demonstration of experiment
	1st(3p, Gr 2)	**Determine the thickness of ground MS plates using slip gauges.**
		i) Aim of the expt, theory
		ii) Slip gauges
		iii) Procedure and Demonstration of experiment
	2nd(3p, Gr 1)	**Determine the thickness of ground MS plates using slip gauges.**
		i) Precautions
		ii) Handling and practice
		iii) Observations and calculation of thickness by students using slip gauges.
	2nd(3p, Gr 2)	**Determine the thickness of ground MS plates using slip gauges.**
		i) Precautions
		ii) Handling and practice
		iii) 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.**
		i) viva, record submission and checking
		ii) Assessment
	1st(3p, Gr 2)	**Determine the thickness of ground MS plates using slip gauges.**
		i) viva, record submission and checking
		ii) Assessment
		Determination of angel of Machined surfaces of components using sin bar with slip gauges.

14th	2nd(3p, Gr 1)	i) Aim of the expt, theory
		ii) how to use sine bars and slip gauges (Demo)
		iii) how to determine angle of a machined surface
	2nd(3p, Gr 2)	**Determination of angel of Machined surfaces of components using sin bar with slip gauges.**
		i) Aim of the expt, theory
		ii) how to use sine bars and slip gauges (Demo)
		iii) how to determine angle of a machined surface
15th	1st(3p, Gr 1)	**Determination of angel of Machined surfaces of components using sin bar with slip gauges.**
		i) Precautions
		ii) Handling and practice
		iii) Observations and calculation by students
	1st(3p, Gr 2)	**Determination of angel of Machined surfaces of components using sin bar with slip gauges.**
		i) Precautions
		ii) Handling and practice
		iii) Observations and calculation by students
	2nd(3p, Gr 1)	**Determination of angel of Machined surfaces of components using sin bar with slip gauges.**
		i) viva, record submission and checking
		ii) Assessment
	2nd(3p, Gr 2)	**Determination of angel of Machined surfaces of components using sin bar with slip gauges.**
		i) viva, record submission and checking
		ii) Assessment

Signature of faculty