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: 5	Semester from Date: 14/02/23 To Date: 23/05/23 No of weeks: 15
Week	**Class Day**	**Topics**
1st	1st(2p, 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(2p, 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)
	3rd(2p, Gr 1 & 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
	4th(2p, Gr 2)	**Determination of centrifugal force of a governor (Hart Nell / Watt/Porter).**
		i) Tabulation and calculations for centrifugal force by students
2nd	1st(2p, Gr 1)	**Determination of centrifugal force of a governor (Hart Nell / Watt/Porter).**
		i) Tabulation and calculations for centrifugal force by students
	2nd(2p, Gr 2)	**Determination of centrifugal force of a governor (Hart Nell / Watt/Porter).**
		i) Tabulation and calculations for centrifugal force by students
	3rd(2p, Gr 1)	**Determination of centrifugal force of a governor (Hart Nell / Watt/Porter).**
		i) Tabulation and calculations for centrifugal force by students
	4th(2p, Gr 1 & Gr 2)	**Determination of centrifugal force of a governor (Hart Nell / Watt/Porter).**
		i) Record submission
		ii) Viva, assessment
	5th (2p, Gr 2)	**Study & demonstration of static balancing apparatus.**
		i) Aim of the expt, theory, procedure
		ii) Tools and equipments required
3rd	1st(2p, Gr 1)	**Study & demonstration of static balancing apparatus.**
		i) Aim of the expt, theory, procedure
		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(2p, Gr 1)	**Study & demonstration of static balancing apparatus.**
		i) Machine handling and precautions
		ii) Taking readings and calculation by students

	4th(2p, Gr 1 & Gr 2)	**Study & demonstration of static balancing apparatus.**
		i) Taking readings and calculation by students
	5th (2p, Gr 2)	**Study & demonstration of static balancing apparatus.**
		i) Taking readings and calculation by students
4th	1st(2p, Gr 1)	**Study & demonstration of static balancing apparatus.**
		i) Taking readings and calculation by students
	2nd(2p, Gr 2)	**Study & demonstration of static balancing apparatus.**
		i) Viva, record submission and checking
		ii) Assessment
	3rd(2p, Gr 1)	**Study & demonstration of static balancing apparatus.**
		i) Viva, record submission and checking
		ii) Assessment
	4th(2p, Gr 1 & Gr 2)	**Study & demonstration of journal bearing apparatus.**
		i) Aim of the expt, theory, procedure
		ii) Tools and equipments required
	5th (2p, Gr 2)	**Study & demonstration of journal bearing apparatus.**
		i) Observations and calculation by students
		ii) Study of different types of journal bearings
5th	1st(2p, Gr 1)	**Study & demonstration of journal bearing apparatus.**
		i) Observations and calculation by students
		ii) Study of different types of journal bearings
	2nd(2p, Gr 2)	**Study & demonstration of journal bearing apparatus.**
		i) Study of different types of journal bearings
	3rd(2p, Gr 1)	**Study & demonstration of journal bearing apparatus.**
		i) Study of different types of journal bearings
	4th(2p, Gr 1 & Gr 2)	**Study & demonstration of journal bearing apparatus.**
		i) Viva, record submission and checking
		ii) Assessment
	5th (2p, 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(2p, 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(2p, Gr 2)	**Study of different types of Cam and followers**
		i) Demonstration of experiment
		i) Study of different types of Cam and followers
	3rd(2p, Gr 1)	**Study of different types of Cam and followers**
		i) Demonstration of experiment
		i) Study of different types of Cam and followers
	4th(2p, Gr 1 & Gr 2)	**Study of different types of Cam and followers**
		i) Study of different types of Cam and followers
	5th (2p, Gr 2)	**Study of different types of Cam and followers**
		i) viva, record submission and checking
		ii) Assessment

7th	1st(2p, Gr 1)	**Study of different types of Cam and followers**
		i) viva, record submission and checking
		ii) Assessment
	2nd(2p, Gr 2)	**Study & demonstration of epicyclic gear train.**
		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.**
		i) Observations and calculation of parameters by students
	5th (2p, Gr 2)	**Study & demonstration of epicyclic gear train.**
		i) Observations and calculation of parameters by students
8th	1st(2p, Gr 1)	**Study & demonstration of epicyclic gear train.**
		i) Observations and calculation of parameters by students
	2nd(2p, Gr 2)	**Study & demonstration of epicyclic gear train.**
		i) Observations and calculation of parameters by students
	3rd(2p, Gr 1)	**Study & demonstration of epicyclic gear train.**
		i) Observations and calculation of parameters by students
	4th(2p, Gr 1 & Gr 2)	**Study & demonstration of epicyclic gear train.**
		i) viva, record submission and checking
		ii) Assessment
	5th (2p, 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
9th	1st(2p, 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
	2nd(2p, 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
	3rd(2p, 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
	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

10th	3rd(2p, Gr 1)	**Determination of the thickness of ground M.S flat using Vernier Caliper.**
		i) viva, record submission and checking
		ii) Assessment
	4th(2p, Gr 1 & 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)
	5th (2p, 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(2p, 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(2p, Gr 2)	**Determination of diameter of a cylindrical component using micrometer**
		i) Observations and calculation of dia by students
	3rd(2p, Gr 1)	**Determination of diameter of a cylindrical component using micrometer**
		i) Observations and calculation of dia by students
	4th(2p, Gr 1 & Gr 2)	**Determination of diameter of a cylindrical component using micrometer**
		i) viva, record submission and checking
		ii) Assessment
	5th (2p, 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(2p, 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)
	2nd(2p, 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
	3rd(2p, 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
	4th(2p, Gr 1 & Gr 2)	**Determine the heights of gauge blocks or parallel bars using Vernier height gauge.**
		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
	1st(2p, Gr 1)	**Determine the heights of gauge blocks or parallel bars using Vernier height gauge.**
		i) viva, record submission and checking
		ii) Assessment

13th	2nd(2p, 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
	3rd(2p, 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
	4th(2p, Gr 1 & Gr 2)	**Determine the thickness of ground MS plates using slip gauges.**
		i) Precautions
		ii) Observations and calculation of thickness by students using slip gauges.
	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.
14th	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(2p, Gr 2)	**Determine the thickness of ground MS plates using slip gauges.**
		i) viva, record submission and checking
	3rd(2p, Gr 1)	**Determine the thickness of ground MS plates using slip gauges.**
		i) viva, record submission and checking
	4th(2p, Gr 1 & 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)
	5th (2p, Gr 2)	**Determination of angel of Machined surfaces of components using sin bar with slip gauges.**
		i) Observations and calculation by students
15th	1st(2p, Gr 1)	**Determination of angel of Machined surfaces of components using sin bar with slip gauges.**
		i) Observations and calculation by students
	2nd(2p, Gr 2)	**Determination of angel of Machined surfaces of components using sin bar with slip gauges.**
		i) Observations and calculation by students
	3rd(2p, Gr 1)	**Determination of angel of Machined surfaces of components using sin bar with slip 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

13.02.23

Faculty Signature

M.K Mishra
Asst. Prof, Mech,