

## GOVERNMENT POLYTECHNIC, NABARANGPUR

## DEPARTMENT OF MECHANICAL ENGINEERING

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Discipline: MECHANICAL	Semester:	Name of the Teaching Faculty: Sri Deepak Ranjan Pattnaik	
ENGG	•	Semester From date: 04.02.2025 To Date:17.05.2025	
Subject: TOM&M LAB (PR.1)	No. of days/per week class allotted: <b>06</b>	No. of Weeks: 15	
	_	Warding principle of machine components such as clutch,	
	CO1:Comprehending Working principle of machine components such as clutch		

## COURSE OUTCOMES

CO1: Comprehending Working principle of machine components such as clutch brakes, bearings based on friction, power transmission systems and predicting the work involved and efficiency.

CO2: Comprehending working principle in speed and torque regulating devices such as governor and flywheels, Determination of amount and position of masses required towards static and dynamic balancing

CO3:Comprehending types and causes of vibration in machines and predicting remedial measures

1-3   Determination of centrifugal force of a governor (Hart Nell / Watt/Porter).			
1 Determination of centrifugal force of a governor (Hart Nell / Watt/Porter).	Week	Class Day	Theory/Practical Topics
Watt/Porter).   1-3   1 Determination of centrifugal force of a governor (Hart Nell / Watt/Porter).   4-6   2 Study & demonstration of static balancing apparatus.   3 PM   1-3   2 Study & demonstration of static balancing apparatus.   4-6   3 Study & demonstration of journal bearing apparatus.   4-6   3 Study & demonstration of journal bearing apparatus.   5 PM   1-3   QUIZ AND ASSIGNMENT   4-6   3 Study & demonstration of journal bearing apparatus.   5 PM   1-3   4 Study of different types of Cam and followers.   4-6   4 Study of different types of Cam and followers.   4-6   5 Study & demonstration of epicyclic gear train.   4-6   5 Study & demonstration of epicyclic gear train.   4-6   QUIZ AND ASSIGNMENT   1-3   5 Study & demonstration of epicyclic gear train.   4-6   QUIZ AND ASSIGNMENT   1-3   6 Determination of the thickness of ground M.S flat to an accurace 0.02mm using Vernier Caliper.   4-6   6 Determination of the thickness of ground M.S flat to an accurace 0.02mm using Vernier Caliper.   7 Determination of diameter of a cylindrical component to an accurace of 0.01mm using micrometer.   7 Determination of diameter of a cylindrical component to an accurace of 0.02mm using micrometer.   8. Determine the heights of gauge blocks or parallel bars to accurace 0.02mm using Vernier height gauge.   8. Determine the heights of gauge blocks or parallel bars to accurace 0.02mm using Vernier height gauge.   8. Determine the heights of gauge blocks or parallel bars to accurace 0.02mm using Vernier height gauge.   8. Determine the heights of gauge blocks or parallel bars to accurace 0.02mm using Vernier height gauge.   8. Determine the heights of gauge blocks or parallel bars to accurace 0.02mm using Vernier height gauge.   8. Determine the heights of gauge blocks or parallel bars to accurace 0.02mm using Vernier height gauge.   8. Determine the heights of gauge blocks or parallel bars to accurace 0.02mm using Vernier height gauge.   9.02mm using Vernier height gauge.   9.02mm using Vernier height gauge.   9.02mm	1 <sup>ST</sup>	1-3	INTRODUCTION
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13 <sup>TH</sup>	1-3	- AND ACCIONALENT
	4-6	9. Determine the thickness of ground MS plates using slip gauges.
14 <sup>TH</sup>	1-3	10 Determination of angel of Machines
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15 <sup>TH</sup>	1-3	10. Determination of angel of Machineu surfaces sin bar with slip gauges LAB RECORD SUBMISSION
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