

**GOVT. POLYTECHNIC, NAYAGARH**  
**4<sup>TH</sup> SEMESTER MECHANICAL ENGINEERING (2022-23)**

**SUBJECTS – THEORY OF MACHINES AND MEASUREMENTS LAB (PR-1)**  
**TOTAL PERIODS- 90**

**NAME OF FACULTY- Mr. PRAFULLA KUMAR MALLICK, PTGF ( Mech Engg.)**

**Mr. RAMYA RASHMI ROUT, PTGF (Mech Engg.)**


**PRACTICAL- 6P/WEEK**

SL NO.	WEEK	DAY	TOPICS TO BE COVERED
1.	1 <sup>ST</sup>	1 <sup>ST</sup>	Determination of centrifugal force of a governor (Hart Nell / Watt/Porter).
		2 <sup>ND</sup>	Determination of centrifugal force of a governor (Hart Nell / Watt/Porter).
2.	2 <sup>ND</sup>	1 <sup>ST</sup>	Determination of centrifugal force of a governor (Hart Nell / Watt/Porter).
		2 <sup>ND</sup>	Study & demonstration of static balancing apparatus
3.	3 <sup>RD</sup>	1 <sup>ST</sup>	Study & demonstration of static balancing apparatus
		2 <sup>ND</sup>	Study & demonstration of static balancing apparatus
4.	4 <sup>TH</sup>	1 <sup>ST</sup>	Study & demonstration of journal bearing apparatus.
		2 <sup>ND</sup>	Study & demonstration of journal bearing apparatus.
5.	5 <sup>TH</sup>	1 <sup>ST</sup>	Study & demonstration of journal bearing apparatus.
		2 <sup>ND</sup>	Study of different types of Cam and followers.
6.	6 <sup>TH</sup>	1 <sup>ST</sup>	Study of different types of Cam and followers.
		2 <sup>ND</sup>	Study of different types of Cam and followers.
7.	7 <sup>TH</sup>	1 <sup>ST</sup>	Study & demonstration of epicyclic gear train
		2 <sup>ND</sup>	Study & demonstration of epicyclic gear train
8.	8 <sup>TH</sup>	1 <sup>ST</sup>	Study & demonstration of epicyclic gear train



		2 <sup>ND</sup>	Determination of the thickness of ground M.S flat to an accuracy of 0.02mm using Vernier Caliper.
9.	9 <sup>TH</sup>	1 <sup>ST</sup>	Determination of the thickness of ground M.S flat to an accuracy of 0.02mm using Vernier Caliper.
		2 <sup>ND</sup>	Determination of the thickness of ground M.S flat to an accuracy of 0.02mm using Vernier Caliper.
10.	10 <sup>TH</sup>	1 <sup>ST</sup>	Determination of diameter of a cylindrical component to an accuracy of 0.01mm using micrometer
		2 <sup>ND</sup>	Determination of diameter of a cylindrical component to an accuracy of 0.01mm using micrometer
11.	11 <sup>TH</sup>	1 <sup>ST</sup>	Determination of diameter of a cylindrical component to an accuracy of 0.01mm using micrometer
		2 <sup>ND</sup>	Determine the heights of gauge blocks or parallel bars to accuracy of 0.02mm using Vernier height gauge.
12.	12 <sup>TH</sup>	1 <sup>ST</sup>	Determine the heights of gauge blocks or parallel bars to accuracy of 0.02mm using Vernier height gauge.
		2 <sup>ND</sup>	Determine the heights of gauge blocks or parallel bars to accuracy of 0.02mm using Vernier height gauge.
13.	13 <sup>TH</sup>	1 <sup>ST</sup>	Determine the thickness of ground MS plates using slip gauges.
		2 <sup>ND</sup>	Determine the thickness of ground MS plates using slip gauges.
14.	14 <sup>TH</sup>	1 <sup>ST</sup>	Determine the thickness of ground MS plates using slip gauges.
		2 <sup>ND</sup>	Determination of angel of Machined surfaces of components using sin bar with slip gauges.
15.	15 <sup>TH</sup>	1 <sup>ST</sup>	Determination of angel of Machined surfaces of components using sin bar with slip gauges.
		2 <sup>ND</sup>	Determination of angel of Machined surfaces of components using sin bar with slip gauges.

Prafulla Kumar Mallik  
Lect. Mech. (PTGF)

  
13/02/2023

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