



PRESIDENCY UNIVERSITY

BENGALURU

Roll No.																			
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Mid - Term Examinations - March 2026

Date: 12- 03-2026

Time: 02:00pm - 03:30pm

School: SOE	Program: B.Tech		
Course Code : MEC2024	Course Name: Metrology and Measurements		
Semester: IV	Max Marks: 50	Weightage: 25%	

CO - Levels	C01	C02	C03	C04	C05	C06
Marks	26	24	-	-	-	-

Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each Question carries 2 Marks.

5Q x2M=10M

1	Distinguish between inspection standards and working standards.	2 Marks	L2	C01
2	Define airy points.	2 Marks	L1	C01
3	State any two disadvantages of material standards.	2 Marks	L1	C01
4	Classify the different types of comparators.	2 Marks	L2	C02
5	Mention the application of clinometer.	2 Marks	L1	C02

Part B

Answer the Questions.

Total Marks 40M

6.	a.	Discuss the objectives and importance of metrology.	10 Marks	L2	C01
	b.	Enumerate the differences between line standards and end standards (10 points).	10 Marks	L2	C01
Or					
7.	a.	Explain the construction and working principle of international prototype meter with a neat diagram.	10 Marks	L2	C01
	b.	Describe the different subdivisions of standards with examples.	10 Marks	L2	C01

8.	a.	Illustrate the construction and working principle of optical bevel protractor with a neat diagram.	10 Marks	L3	C02
	b.	Sketch the concept of adding and subtracting in angle gauge blocks with suitable diagrams.	10 Marks	L3	C02
Or					
9.	a.	Illustrate the construction and working principle of an optical flat with schematic sketches.	10 Marks	L3	C02
	b.	Schedule the steps to measure small angles using autocollimator with a schematic sketch.	10 Marks	L3	C02