CONTINUOUS INTERNAL EVALUATION– 1

Dept:ME	Sem / Div: IVth	Sub:Mechanical Measurements & Metrology	S Code:18ME46B
Date:26/05/2021	Time: 3:00 – 4:30PM	Max Marks: 50	Elective:N

Note: Answer any 2 full questions, choosing one full question from each part.
Draw ***neat sketches*** wherever required.

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QN		Questions	Marks	RBT	COs
		PART A			
1	a	List the objectives of metrology.	05	L1	CO1
	b	Discuss with a neat sketches the material length standards.	10	L2	CO1
	c	A calibrated end bar having an actual length of 500.0005 mm is to be used to calibrate two end bars A and B each having a basic length of 250 mm. On comparison the combined length is found to be shorter than the 500 mm end bar by 0.0003 mm. When the two end bars A and B are inter compared with each other, A is found to be 0.0006 mm longer than B. Determine the actual length of two end bars.	10	L3	CO1
		OR			
2	a	Build dimension using M112 slip gauges. (i)35.4875mm (ii) 78.3665mm, (iii) 101.345mm and using M87 slip gauges build (i)49.3825mm ii) 873215mm.	10	L3	CO1
	b	With a neat sketck explain the working of Autocollimator.	07	L2	CO1
	c	Explain the working of Sine bar with a neat sketch and mention its limitations.	08	L2	CO1
		PART B			
3	a	Define comparator and list its characteristics.	07	L1	CO2
	b	Describe the construction and principle of working of Johnson Mikrokator with a neat sketch.	12	L2	CO2
	c	Explain Solex pnumatic comparators with a neat sketch.	06	L2	CO2
		OR			
4	a	Explain the construction and principle of LVDT.	10	L2	CO2
	b	Discuss the construction and working of Zeiss ultra optimeter.	07	L2	CO2
	c	Describe the working of Sigma Comparator.	08	L2	CO2

Scan and send the answer scripts to 4semmmm@gmail.com

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