Vivekananda College of Engineering & Technology, Puttur [A Unit of Vivekananda Vidyavardhaka Sangha Puttur ®] Affiliated to VTU, Belagavi & Approved by AICTE New Delhi			
CRM08	Rev 1.11	ME	28/07/22

CONTINUOUS INTERNAL EVALUATION - 2

Dept:ME	Sem / Div:4th	Sub:Mechanical Measurements & Metrology	S Code: 18ME46B
Date:04/08/22	Time: 3:00-4:30	Max Marks: 50	Elective:N

Note: Answer any 2 full questions, choosing one full question from each part.

QN		Questions	Marks	RBT	CO's
		PART A			
1	a	Discuss limits, tolerances and their types with neat sketches.	10	L2	CO2
	b	Explain hole and shaft basis systems.	10	L2	CO2
	c	Explain the concept of interchangeability.	5	L2	CO2
		OR			
2	a	Determine the dimensions of the shaft and hole for a fit of 30 H8 d10, given the following data: •Diameter 30 falls in the diameter range 18-30 •Upper deviation for shafts is $-16D^{0.44}$ •$i=0.45D^{0.33} + 0.001D$ •Tolerance for IT8 = 25i •Tolerance for IT10 = 64i	10	L3	CO2
	b	Discuss the Taylor's Principle of Gauge Design.	10	L2	CO2
	c	Explain the concept of GO and NO GO gauge.	5	L2	CO2
		PART B			
3	a	Discuss generalized measurement system with a neat sketch along with an example.	10	L1	CO4

	b	Define: Accuracy, precision, calibration, hysteresis and resolution.Explain any one type of Mechanical transducer.	10	L1	CO4
	c	Explain any one type of Mechanical transducer.	05	L2	CO4
		OR			
4	a	Describe CRO with a neat sketch.	10	L2	CO4
	b	Discuss ballast circuit with a neat sketch.	10	L2	CO4
	c	Explain the working concept of D'Arsonval meter movement.	05	L2	CO4

Prepared by: Dr.Deepak KB

HOD