Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma Engineering - SEMESTER–IV • EXAMINATION – SUMMER • 2014

Subject Code: 3345501 **Date: 23-05-2014**

Subject Name: Instrumentation Control and Q.A.

Time: 10:30 am - 01:00 pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **English version is considered to be Authentic.**

Q.1	(a)	Define the term "METROLOGY". Describe its Objectives.	**07**
	(b)	Differentiate between Interchangeability and Selective assembly.	**07**
Q.2	(a)	Draw neat sketch of Vernier Caliper, label its parts and Explain its working.	**07**
	(b)	Draw neat sketch of Main scale and Micrometer scale of Micrometer Instrument calculate its Least Count.	**07**
		OR	
	(b)	Draw neat sketch of Dial Indicator and Explain its working.	**07**
Q.3	(a)	Draw neat sketch of Bevel Protector and Explain its working.	**07**
	(b)	What do you mean by Angle Gauges. Draw neat sketch of a set of angle gauges for suitable angular dimensions.	**07**
		OR	
Q.3	(a)	Describe working of Clinometer with neat sketch.	**07**
	(b)	Describe Working of Auto Collimator with neat sketch.	**07**
Q.4	(a)	Describe Surface Roughness terminology with neat sketch.	**07**
	(b)	Describe working of any ONE Temperature Measuring Instrument with neat sketch.	**07**
		OR	
Q. 4	(a)	Describe Relationship of Machining Process and Surface Texture.	**07**
	(b)	Describe Working of any ONE Pressure Measuring Instrument with neat sketch.	**07**
Q.5	(a)	Describe Working of any ONE Flow Measuring Instrument with neat sketch.	**07**
	(b)	State and Explain Responsibilities of Welding Inspector.	**07**
		OR	
Q.5	(a)	State meaning of "QUALITY". Describe Quality Characteristics and Quality Control.	**07**
	(b)	Describe TQM Principle, Procedure and Application.	**07**

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