

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**
