

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER – IV • EXAMINATION – SUMMER 2016

Subject Code: 3345501

Date: 09/05/2016

Subject Name: I.C. & Q.A.

Time: 10:30 AM to 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. Use of programmable & Communication aids are strictly prohibited.
5. Use of only simple calculator is permitted in Mathematics.
6. English version is authentic.

- Q.1 (a) Explain Different weld gauge with neat sketch. 07
(b) Make dimension of 54.3575 mm by using M 112 slip gauge set. 07
- Q.2 (a) Draw construction sketch and label different part of following measuring instruments 07
1. A-type vernier caliper
2. Vernier height gauge
3. Micrometer screw
(b) Prepare an angle of $34^{\circ} 50' 42''$ by using standard angle gauge set. Draw its setup. 07
- OR
- (b) Define the term “Squareness”. List different methods for checking squareness. Explain following methods with neat sketch. 07
1. Dial indicator method
2. Autocollimator method
- Q.3 (a) Explain following application of Sign Bar with neat sketch 07
1. Finding unknown Angle
2. Finding unknown Angle of Heavy Job
3. Use of Sign Center
4. Use of Sign Table
(b) Explain Tomlinson surface roughness meter with neat sketch. 07
- OR
- Q.3 (a) Explain Auto collimators meter with neat sketch. 07
(b) Explain Taylor Hobson Telysurf with neat sketch. 07
- Q.4 (a) Draw Block diagram of Generalized measuring system and define it. Explain its different stages with example. 07
(b) Draw construction sketch and label different part of following measuring instruments 07
1. Pressure Spring Thermometer
2. Resistance Thermometer
3. Thermocouple
- OR
- Q.4 (a) Draw construction sketch and label different part of following 07

- measuring instruments
1. U-tube Manometer
 2. Bourdon Tube Pressure Gauge
 3. Dead weight piston gauge
- (b) Draw construction sketch and label different part of following measuring instruments 07
1. Bellows Type meter
 2. Venturi Meter
 3. Rota Meter
- Q.5 (a) Define the term Inspection. Explain objective, need of inspection and result of absence of Inspection. 07
- (b) Write brief note on KAIZEN. 07
- OR
- Q.5 (a) Define the term “Quality Control”. Explain objective of quality control. 07
- (b) Write brief note on 5-S. 07
