

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING - SEMESTER-V • EXAMINATION – SUMMER • 2014

Subject Code: 355505

Date: 03-06-2014

Subject Name: Welding Inspection and Testing

Time: 02:30 pm - 05:00 pm

Total Marks: 70

Instructions:

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**
- 4. Each question carry equal marks (14 marks)**

- Q.1** (a) Define the term “welding inspection”. Prepare classification chart of different welding tests. **07**
(b) Explain inspection process carries out before, during and after welding. **07**
- Q.2** (a) Explain different qualities required for the post of welding inspector. **07**
(b) Define the terms “discontinuity” and “defect”. Prepare list of the different of them for base metal and weld metal. **07**
- Or
- (b) Explain causes and remedies of any seven weld defects with sketch. **07**
- Q.3** (a) Compare destructive testing and non destructive testing. **07**
(b) What is TPI? Prepare list of different TPI in the field of fabrication. **07**
- Or
- Q.3** (a) Explain procedural steps of Penetrant testing with neat sketches. **07**
(b) Explain working principle of X-ray radiography with neat sketch. **07**
- Q.4** (a) Explain advantages, limitations and application of radiography testing. **07**
(b) Describe FIVE RT techniques with neat sketches. **07**
- Or
- Q. 4** (a) Describe properties of sound waves with neat sketch and write its application. **07**
(b) Explain working principle of Acoustic emission test with neat sketch. **07**
- Q.5** (a) What is ultrasonic transducer? Explain different types of ultrasonic transducer with neat sketch. **07**
(b) Explain procedure used for MPT testing with neat sketch. **07**
- Or
- Q.5** (a) List different destructive test for weld joint. Explain tensile test with neat sketch. **07**
(b) Describe procedure of bend testing with neat sketch. **07**
