

Seat No.: \_\_\_\_\_

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**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**DIPLOMA ENGINEERING – SEMESTER – V • EXAMINATION –WINTER 2016**

**Subject Code: 3355505**

**Date: 29- 11-2016**

**Subject Name: WELDING INSPECTION & TESTING**

**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. Each question carry equal marks (14 marks)

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|------------|-----|--|-----------|
| <b>Q.1</b> | (a) | Describe the Term “Preheating” & “Post Heat Treatment”.  | <b>07</b> |
|            | (b) | Define the term “Discontinuities”. Explain Three Weld Ment related discontinuities with neat sketches. | <b>07</b> |
| <b>Q.2</b> | (a) | Draw neat sketches of Acceptable and Unacceptable Fillet weld profiles.                                | <b>07</b> |
|            | (b) | Describe important details of WPS.   | <b>07</b> |
| <b>OR</b>  |     |  |           |
|            | (b) | Describe important details of PQR.   | <b>07</b> |
| <b>Q.3</b> | (a) | Describe Impact Test procedure with neat sketch.   | <b>07</b> |
|            | (b) | Describe Principle of MPT with neat sketch & List one code reference of MPT.                           | <b>07</b> |
| <b>OR</b>  |     |  |           |
| <b>Q.3</b> | (a) | Descrsibe Tensile Test procedure with neat sketch.   | <b>07</b> |
|            | (b) | Describe Advantages and Limitations of MPT.  | <b>07</b> |
| <b>Q.4</b> | (a) | Describe basic principle of LPT with neat sketch.  | <b>07</b> |
|            | (b) | Describe principle of UT with neat sketch.   | <b>07</b> |
| <b>OR</b>  |     |  |           |
| <b>Q.4</b> | (a) | Describe procedure of LPT with neat sketch.  | <b>07</b> |
|            | (b) | Describe three types of Transducers with neat sketch.  | <b>07</b> |
| <b>Q.5</b> | (a) | Describe basic principle of X-ray Radiography.   | <b>07</b> |
|            | (b) | Compare Destructive testing V/S Non Destructive testing.   | <b>07</b> |
| <b>OR</b>  |     |  |           |
| <b>Q.5</b> | (a) | List Advantages & Disadvantages of Radiography Testing.  | <b>07</b> |
|            | (b) | Describe helium leak testing procedure.  | <b>07</b> |

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