

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**DIPLOMA ENGINEERING – SEMESTER –III • EXAMINATION –SUMMER 2015**

**Subject Code: 3335504****Date: 11 /05 /2015****Subject Name: Welding Technology-I****Time: 2:30 pm to 5:00 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) What do you mean by the term ‘WELDING’? Classify “Welding Process”. **07**  
(b) Draw neat sketch of SMAW principle and Explain it. **07**
- Q.2** (a) Describe DCEN and DCEP with neat sketches. **07**  
(b) Describe why power source is required for Welding? **07**  
OR  
(b) Draw neat sketch of Welding Transformer and write its Specifications. **07**
- Q.3** (a) Describe OCV with neat sketch. **07**  
(b) State Advantages and Disadvantages and Application of Welding Transformer. **07**  
OR
- Q.3** (a) Describe the terms ‘Duty cycle’ and ‘Current Rating’. **07**  
(b) Draw neat sketch of Welding Rectifier and write its Specification. **07**
- Q.4** (a) Describe Factors affecting selection of Welding Power Source. **07**  
(b) Draw neat sketches and state causes and remedies of any SEVEN Welding Defects. **07**  
OR
- Q.4** (a) Describe importance of “Baking” of Electrode. **07**  
(b) Describe Principle of SAW with neat sketch. **07**
- Q.5** (a) State steps of good engineering Practice for SMAW. **07**  
(b) Draw neat sketches and explain SEVEN different welding Positions. **07**  
OR
- Q.5** (a) Write safety Precautions to be observed in SMAW & SAW. **07**  
(b) Explain meaning of WPS, WPQ and PQR with regards to welding. **07**

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