

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE SEMESTER - V EXAMINATION – WINTER 2013**

**Subject Code: 153403****Date: 04-12-2013****Subject Name: Foundry and Welding Technology****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.

- Q.1** (a) Explain various types of patterns with neat sketch. **07**  
(b) What is core? Explain the types of core and its purpose. **07**
- Q.2** (a) Name the common types of defects appearing in casting. Give their cause and remedies. **07**  
(b) Explain the properties of Moulding sand. **07**
- OR**
- (b) Describe the process of sand preparation. **07**
- Q.3** (a) Explain Oxy acetylene gas welding and types of flame used in gas welding. **07**  
(b) Write short note on Resistance welding. **07**
- OR**
- Q.3** (a) Write short note: soldering and Brazing. **07**  
(b) Explain in details Thermit welding and Brazing welding. **07**
- Q.4** (a) Explain in details A) centrifugal casting; B) Continuous casting. **07**  
(b) Explain in details A) Investment casting; B) CO<sub>2</sub> Moulding. **07**
- OR**
- Q.4** (a) Explain in details plaster mould castings. **07**  
(b) Explain in details electro slag casting and slush casting. **07**
- Q.5** (a) Write short note: TIG and MIG **07**  
(b) Write short note: EBW, LBW **07**
- OR**
- Q.5** (a) Name the common types of defects appearing in welding. Give their cause and remedies. **07**  
(b) Explain the use of A) Dye penetrant inspection; B) Ultrasonic testing **07**

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