

GUJARAT TECHNOLOGICAL UNIVERSITY**BE – SEMESTER V • EXAMINATION – WINTER - 2012****Subject code: 153403****Date: 17-01-2013****Subject Name: Foundry and Welding Technology****Time: 02:30 pm to 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.

Q.1 (a) Name various materials used in making pattern. Discuss their merits and demerits. **07**

(b) Explain various types of patterns with neat sketch. Also, define application of each. **07**

Q.2 (a) Define classification of moulding processes. Explain green sand & dry sand mould with neat sketch. **07**

(b) Define and explain any four materials allowances in casting process with neat sketch. **07**

OR

(b) Explain single box, two box & three box moulding processes with neat sketch. **07**

Q.3 (a) Define Welding. Give detail classification of welding. **07**

(b) Explain in details Submerged arc welding with neat sketch. Also, define merits, demerits & applications. **07**

OR

Q.3 (a) Explain in details oxy acetylene gas welding with neat sketch. Also, define merits, demerits & applications. **07**

(b) Explain in details atomic hydrogen arc welding with neat sketch. Also, define merits, demerits & applications. **07**

Q.4 (a) Explain in details seam & projection welding with neat sketch. Also, define merits, demerits & applications. **07**

(b) Explain in details Electro beam & Laser beam welding with neat sketch. Also, define merits, demerits & applications. **07**

OR

Q.4 (a) Explain in details shielded gas arc welding [Both GMAW & GTAW] with neat sketch. Also, define merits, demerits & applications. **07**

(b) Explain in details Diffusion bonding. **07**

Q.5 (a) Explain methods of centrifugal casting in details. **07**

(b) Explain in details causes & remedies for casting defects. **07**

OR

Q.5 (a) Explain with neat sketch different types of joints in welding. **07**

(b) Give detail classification of weld defects. **07**
