

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE – SEMESTER – V (NEW) EXAMINATION – WINTER 2015**

**Subject Code: 2152506****Date: 17/12/ 2015****Subject Name: Foundry Technology****Time: 10:30am to 1:00pm****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 the various steps to manufacturing Sand Cast Product. **07**  
 (b) Explain the function of Pouring Basin, Sprue, Gating System, and Riser. **07**
- Q.2** (a) Enlist types of pattern. Explain the any Three of them with neat sketch. **07**  
 (b) Explain the various allowances provided in the pattern with neat sketch. Which pattern allowance is considered as Negative allowance? **07**
- OR**
- (b) Enlist different types of Moulding Machines. Explain any one of them with neat sketch. **07**
- Q.3** (a) Explain steps Casting Process generally used to manufacture Cylindrical Symmetrical Metal Pipeline, with neat sketch. **07**  
 (b) Enlist the different properties of Moulding Sand. Briefly explain any three of them. **07**
- OR**
- Q.3** (a) Briefly explain the function of Core, Core print with neat sketch. Write down the name of Moulding method used for making Lathe Bed. **07**  
 (b) Explain Investment Casting with neat sketch. **07**
- Q.4** (a) Explain the various Fettling process carried out after casting process. **07**  
 (b) Enlist different Non Destructive Testings (NDT) carried out for Casting Product. Explain any one of them with neat sketch. **07**
- OR**
- Q.4** (a) Enlist different types of defects in casting product. Explain any three of them with neat sketch. **07**  
 (b) Enlist different types of Furnaces. Explain Cupola furnace with neat sketch. **07**
- Q.5** (a) Explain Pressure Die Casting with Neat sketch. **07**  
 (b) Explain the Shell Moulding Process with neat sketch. **07**
- OR**
- Q.5** (a) Explain the term directional Solidification. Explain the types of Gates with neat sketch. **07**  
 (b) Explain the role of Computer in Casting Industries. **07**

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