

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V • EXAMINATION – SUMMER • 2014****Subject Code: 152501****Date: 11-06-2014****Subject Name: Casting 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) Define casting process. Write steps involved in making casting with its advantages and limitations. **07**
(b) Explain duties and responsibilities of a foundry engineer. **07**
- Q.2** (a) Describe components of gating system with neat sketch. **07**
(b) Explain principle and working of Cupola Furnace with neat sketch. **07**
- OR**
- (b) Write a short note on Investment Casting Process with neat sketch. **07**
- Q.3** (a) Explain Centrifugal Casting Process with neat sketch. **07**
(b) Explain Shell Molding Process with neat sketch. **07**
- OR**
- Q.3** (a) Write short note on types of Pattern Materials. **07**
(b) Explain Pattern Allowances with neat sketch. **07**
- Q.4** (a) Write the classification of cores. Explain with neat sketch two types of core boxes. **07**
(b) Explain foundry tools with sketch. **07**
- OR**
- Q.4** (a) Compare wood and metal as pattern material .Discuss advantages of each. **07**
(b) Write short note on heat treatment of castings. **07**
- Q.5** (a) Explain the modernization of foundries. **07**
(b) Differentiate DT and NDT. Explain any two NDT methods with neat sketch. **07**
- OR**
- Q.5** (a) Explain the use of Computers in Foundry shop. **07**
(b) Explain the causes and remedies of four types of casting defects. **07**
