

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- Vth SEMESTER-EXAMINATION – MAY/JUNE - 2012****Subject code: 152501****Date: 01/06/2012****Subject Name: Casting Technology****Time: 02:30 pm – 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) Define casting process. Explain the steps involved in making casting with its merits and demerits. **07**
(b) Compare the casting with metal joining and metal removing process. **07**
- Q.2** (a) Define pattern. Write the advantages and disadvantages of different types of pattern materials. **07**
(b) Explain the pattern allowances in detail. **07**
- OR**
- (b) Give the different types of patterns. Explain any four with neat sketch. **07**
- Q.3** (a) Write in detail about properties of moulding sand. **07**
(b) Give the names of moulding sand. Describe any five. **07**
- OR**
- Q.3** (a) Define core. Give the classification of cores. Explain with neat sketch two types of core boxes. **07**
(b) Write the Need, Areas for Mechanization and Typical Layout for foundry. **07**
- Q.4** (a) Classify and explain foundry tools with sketch. **07**
(b) Write the names of moulds and explain any four. **07**
- OR**
- Q.4** (a) Give the names of foundry furnaces. Explain the cupola furnace with sketch. **07**
(b) Define gate. Explain the gate with its merits and demerits with sketch. **07**
- Q.5** (a) Define the riser. Explain the functions and types of riser with its advantages and disadvantages. **07**
(b) Explain the fettling processes of casting in detail. **07**
- OR**
- Q.5** (a) Explain the Investment Casting **07**
(b) Explain the Defects in Casting, its causes and remedies. **07**
