

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.E. Sem-Vth Examination December 2010

Subject code: 152501

Subject : Casting Technology

Date: 13/ 12 /2010

Time: 03.00 pm - 05.30 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) Describe components of gating system with neat sketch. 07
(b) Explain various pattern allowances. 07

- Q.2 (a) Explain cupola furnace with neat sketch. 07
(b) Describe investment casting process and show its advantages. 07

OR

- (b) Describe the causes of casting defect named “blow hole”. also write its remedies. 07

- Q.3 (a) Explain working of a permeability meter. what is permeability number. 07
(b) Explain different types of cores with neat sketch. 07

OR

- Q.3 (a) Explain pattern layout and pattern colors. 07
(b) Compare casting process with other manufacturing process. 07

- Q.4 (a) Explain various properties of molding sand. 07
(b) What is casting? What are the basic steps for making casting? 07

OR

- Q.4 (a) Discuss any two types of patterns with neat sketch. 07
(b) Compare wood and metal as pattern material .Discuss advantages of each. 07

- Q.5 (a) Write short note on modernization of foundries. 07
(b) Explain duties and responsibilities of a foundry engineer. 07

OR

- Q.5 (a) Describe health conditions of foundry workers. And show its remedies. 07
(b) Write short note on heat treatment of castings. 07
