Seat No.: _____ Enrolment No._____

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**

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