Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–V • EXAMINATION – WINTER • 2014

Subject Code: 152501 **Date: 26-11-2014**

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)** (1) In the Sand Moulding top flask is known as_____ **01**

a. Cope
b. Drag
c. Fillet
d. Cheek

(2) In the Sand Moulding the bottom flask is known as_____ **01**

a. Cope
b. Drag
c. Fillet
d. Cheek

(3) In Sand Moulding, The middle Part of Flask is called _____ **01**

e. Cope
f. Cheek
g. Drag
h. Flask- Middle

(4) Wax pattern is used in _____ **01**

a. Shell Moulding
b. Die Casting
c. Investment casting
d. Centrifugal casting

(5) _____provides an added projection on a pattern and forms a seat to support and locate the core in the mould **01**

e. Mould Print
f. Core print
g. Drag
h. Cope

(6) The taper provided on pattern for its easy and clan withdrawal from the mould is called _____ **01**

a. Shrinkage allowance
b. Draft allowance
c. Distortion allowance
d. Casting allowance

(7) Fettling is an operation performed _____ **01**

a. Before casting
b. During casting
c. After casting
d. Never in the Casting Process

(b) Explain the general step to make Casting Product. **07**

Q.2	**(a)**	Enlist different "Allowance" Provided in the Pattern and briefly explain any three of them with neat sketch.	**07**
	(b)	Write the function of "Core". Enlist different types of Core. Explain any three of them with neat sketch.	**07**
		OR	
	(b)	Briefly explain the different Properties of types of Moulding Sand.	**07**
Q.3	**(a)**	Briefly explain the term Directional Solidification with neat Sketch.	**07**
	(b)	Explain the function of different parts in the Gating System with neat sketch.	**07**
		OR	
Q.3	**(a)**	Write the function of Riser and Briefly Explain How it is helpful for Directional Solidification.	**07**
	(b)	Explain the different Operations Carried out in the Fettling Process.	**07**
Q.4	**(a)**	Brief explain Investment Casting Process with neat sketch.	**07**
	(b)	Brief explain Shell Moulding with neat sketch.	**07**
		OR	
Q.4	**(a)**	Brief explain Slush Casting Process with neat sketch.	**07**
	(b)	Brief explain Die Casting Process with neat sketch.	**07**
Q.5	**(a)**	Enlist Various Non Destructive Tests carried out for Casting Products. Explain Liquid Penetrant Test with its limitations.	**07**
	(b)	Enlist different types of Moulding Process. Explain any one of them with neat Sketch.	**07**
		OR	
Q.5	**(a)**	Brief explain Cupola Furnace with neat Sketch.	**07**
	(b)	Brief explain the different Cost occur for making Casting Product.	**07**

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