Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

PDDC - SEMESTER–V EXAMINATION – WINTER 2015

Subject Code:X51902 **Date:12/12/2015**

Subject Name: Manufacturing Process - II

Time: 10:30pm to 01:00pm **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 Pattern. Enlist Different types of pattern. Discuss single piece pattern & skeleton pattern with neat sketch.	**07**
	(b)	Explain different criteria for selection of manufacturing process.	**07**
Q.2	**(a)**	Describe importance of pattern allowances. Enlist different types of pattern allowances and explain it.	**07**
	(b)	Draw Schematic diagram of Electric Arc Furnaces and explain construction and working.	**07**
		OR	
	(b)	Discuss Sand Casting Defects.	**07**
Q.3	**(a)**	Explain Laser Beam Welding (LBM) with its neat sketch and state advantages.	**07**
	(b)	Compare A) Permanent mould casting and die casting B) True centrifugal casting and centrifuging	**07**
		OR	
Q.3	**(a)**	Define following terms with reference to welding. 1. Flux 2. Filler Material 3. Electrode 4. Inert Gas 5. Edge Preparation 6. Polarity 7. Arc Length	**07**
	(b)	Explain submerged arc welding with schematic diagram and state benefits over SMAW.	**07**
Q.4	**(a)**	1. Differentiate TIG Welding & MIG Welding 2. Differentiate Spot Welding & Seam Welding	**07**
	(b)	Classify metal forming process. List the factors influencing rolling process. Explain the effect of roller diameter and metal friction on rolling process.	**07**
		OR	
Q.4	**(a)**	Explain deep drawing operations with its principal and applications.	**07**
	(b)	Explain Metal Spinning.	**07**
Q.5	**(a)**	Explain Roll forging and discuss different forging defects.	**07**
	(b)	Explain Injection moulding with neat sketch with its application	**07**
		OR	
Q.5	**(a)**	Differentiate between forward extrusion and backward extrusion.	**07**
	(b)	Classify the types of plastics along with the general properties of plastics.	**07**

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