Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–V • EXAMINATION – WINTER • 2014

Subject Code: 151901 **Date: 26-11-2014**

Subject Name: Manufacturing Processes - II

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)**	Write the steps for making a casting by the removable pattern sand mould casting process.	**07**
	(b)	With the help of diagram discuss the following types of pattern (i) Loose piece pattern (ii) sweep pattern (iii) Match plate pattern.	**07**
Q.2	**(a)**	Explain following (i) Function of additives in moulding sand (ii) Various types of cores used in casting.	**07**
	(b)	With the help of sketches, explain centrifugal casting.	**07**
		OR	
	(b)	Write short note on "Shell Moulding Method".	**07**
Q.3	**(a)**	Discuss the merits and demerits of A.C. and D.C. power sources. Explain straight and reverse polarity.	**07**
	(b)	Explain differences between TIG and MIG welding processes.	**07**
		OR	
Q.3	**(a)**	Explain seam welding process with the help of sketch. How does it differ from spot welding?	**07**
	(b)	Explain various flames produced in an Oxy-acetylene gas welding.	**07**
Q.4	**(a)**	Explain electron beam welding. State its applications,	**07**
	(b)	Discuss strain rate effect and metallurgy structure in metal working.	**07**
		OR	
Q.4	**(a)**	Define forging. Give its merits, demerits and applications.	**07**
	(b)	Compare direct and indirect extrusion.	**07**
Q.5	**(a)**	Explain blanking, piercing, coining, embossing, drawing and squeezing.	**07**
	(b)	What are the characteristics of thermoplastics? How does it differ from thermosetting plastics?	**07**
		OR	
Q.5	**(a)**	Explain transfer mouldig process with sketches.	**07**
	(b)	Explain compression process of moulding plastics.	**07**

****