Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VI (OLD) - EXAMINATION – SUMMER 2017

Subject Code: 162504 **Date: 01/05/2017**

Subject Name: Allied Manufacturing Processes

Time: 10:30 AM to 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)**	Explain different types of standard thread forms with neat sketch and its application.	**07**
	(b)	Explain the working principle of Electro Chemical Machining process with neat sketch. State its merits, demerits and applications.	**07**
Q.2	**(a)**	What purposes are served by the gears? Classify gear manufacturing methods.	**07**
	(b)	Define automation. Describe the essential parts of turret lathe with neat sketch.	**07**
		OR	
	(b)	Define and Classify Transfer Machine. Explain any two of them with neat sketch.	**07**
Q.3	**(a)**	Explain how external and internal threads are manufactured? State limitations in each case.	**07**
	(b)	Which products can be manufactured using hob? Describe that process with neat sketch.	**07**
		OR	
Q.3	**(a)**	Which instruments are useful for thread inspection? How the screw threads can be inspected?	**07**
	(b)	Explain the various gear finishing processes.	**07**
Q.4	**(a)**	Differentiate between zink plating and dull plating.	**07**
	(b)	Define Polymerization. Explain injection moulding process with neat sketch and also state the applications of it.	**07**
		OR	
Q.4	**(a)**	Explain chrome plating with neat sketch. Also state its merits, demerits and applications.	**07**
	(b)	Differentiate Thermoplastic and Thermosetting plastics. Discuss the properties of plastics.	**07**
Q.5	**(a)**	What are the requirements of unconventional machining processes in industries? Classify the unconventional machining processes based on the mechanism involved.	**07**
	(b)	Compare abrasive jet machining process with water jet machining process along with its parameters, merits, demerits and sketch.	**07**
		OR	
Q.5	**(a)**	Explain ultrasonic machining process with process parameters, features, advantages, disadvantages and its application.	**07**
	(b)	Discuss about electrical discharge machining process along with principle, applications and neat sketch.	**07**

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