

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VI • EXAMINATION – SUMMER • 2014

Subject Code: 162504**Date: 26-05-2014****Subject Name: Allied Manufacturing Processes****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) Describe the essential parts of turret lathe. How does it differ from engine lathe? **07**
- (b) Explain EDM process in brief. Compare ECM with EDM. **07**
- Q.2** (a) Describe the indexing and locking operational cycle of a turret. **07**
- (b) Discuss the casting method for producing threads. **07**
- OR**
- (b) Discuss the various gear finishing processes. **07**
- Q.3** (a) Describe the construction and operation of a Swiss-type automatic screw machine. **07**
- (b) Differentiate Capstan and Turret Lathes. Explain bar feed mechanism with neat sketch. **07**
- OR**
- Q.3** (a) Define and Classify Transfer Machine. Explain any two of them with neat sketch. **07**
- (b) Which process is using the principle opposite to Electro Plating? Explain the process in detail with neat sketch. **07**
- Q.4** (a) What is the necessity of Unconventional Machining Process in modern industries? Classify compare and explain various processes according to basic mechanism involved. **07**
- (b) In which unconventional process Ruby Rod is used? Explain the process in detail with neat sketch. **07**
- OR**
- Q.4** (a) Define Polymerization. Explain Injection Molding with a neat sketch. **07**
- (b) Classify Gear Manufacturing Methods. Explain Gear Hobbing Process. **07**
- Q.5** (a) Explain properties of Plastic. Which additives are added in plastic and why? **07**
- (b) Differentiate Thermoplastic and Thermosetting plastics. Explain Transfer Molding with neat sketch. **07**
- OR**
- Q.5** (a) Explain Plasma Arc Machining (PAM) with neat sketch. List characteristics of PAM processes. **07**
- (b) Describe the following types of tape chasers: **07**
- (i) Regular, (ii) over-hanging, (iii) circular
