

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI • EXAMINATION – WINTER • 2014****Subject Code: 162504****Date: 03-12-2014****Subject Name: Allied Manufacturing Processes****Time: 02:30 pm - 05:00 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 differs from Engine lathe? **07**
- (b) State the industries where the transfer machines are more useful. Classify and explain the working of any one type transfer machine. **07**
- Q.2** (a) Explain the “Hot Rolling” method of gear manufacturing. **07**
- (b) Explain EDM process in brief. Compare ECM with EDM. **07**
- OR**
- (b) Explain laser beam machining with neat sketch. Give critical parameters of laser beam machining **07**
- Q.3** (a) Sketch and explain extrusion process for plastic. **07**
- (b) Distinguish between ‘Chrome plating’ and ‘Dull plating’ Process. **07**
- OR**
- Q.3** (a) What is the difference between L.H. thread and R.H. thread? Explain Three wire method for thread inspection. **07**
- (b) Explain the swaging operation in brief and bring out its merits demerits and applications. **07**
- Q.4** (a) Discuss compression Molding. Explain any two processes with neat sketch. **07**
- (b) Discuss the various gear finishing processes. **07**
- OR**
- Q.4** (a) Discuss various types of self opening die heads. **07**
- (b) Differentiate between “Transverse thread grinding” and “Plunge Grinding”. **07**
- Q.5** (a) Explain Plasma Arc Machining (PAM) with neat sketch. List characteristics of PAM processes. **07**
- (b) Explain in detail how ceramics and glass coating is carried out. **07**
- OR**
- Q.5** (a) With the help of neat diagram, explain the bar feeding mechanism for automatics. **07**
- (b) Explain in which areas, the unconventional manufacturing methods are Superior than conventional manufacturing methods. Also state the demerits. **07**
