

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

# **GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE - SEMESTER-V • EXAMINATION – WINTER • 2014**

**Subject Code: 153404**

**Date: 01-12-2014**

**Subject Name: Mold Engineering**

**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) Sketch and explain about Three Plate Injection Mould with suitable Plastic part. **07**  
(b) Describe various parts of Micrometer and their applications with neat sketch. **07**
- Q.2** (a) Explain the working principle of Wire – EDM and their applications with sketch. **07**  
(b) Write the elements used for Hobbing Process to develop Mould. Explain any two elements in detail. **07**
- OR**
- (b) Write the working principle and applications of Surface Grinding Machine. **07**
- Q.3** (a) Explain how Hobbing – Machining process is used to develop gears? With suitable example. **07**  
(b) Write the process and materials used for Electroforming to develop Moulds. **07**
- OR**
- Q.3** (a) Draw and explain the functions of Tool Makers Microscope with simple sketch. **07**  
(b) Write the working principle, advantages & disadvantages of Tomlinson Surface Meter with sketch. **07**
- Q.4** (a) Write short notes on Electro Sonic Polishing. **07**  
(b) Describe the limitations of Chemical Texturing. **07**
- OR**
- Q.4** (a) Sketch and explain how Horizontal Milling Machine is working to perform various machining operations? **07**  
(b) Explain the working principle and applications of Copy Milling with suitable example with sketch. **07**
- Q.5** (a) Explain the basics of Polishing Technology and write the effect of mould materials on Polishability. **07**  
(b) Write the use of Surface Plate, Angle Plate and Slip Gauges. **07**
- OR**
- Q.5** (a) Write the various Surface Roughness terminologies as per Indian Standards. Explain any two terminologies in detail. **07**  
(b) Write any three Polishing Tools and explain the method of Polishing. **07**

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