

GUJARAT TECHNOLOGICAL UNIVERSITY**Diploma Engineering - SEMESTER-VIII • EXAMINATION – WINTER • 2016****Subject Code: 3362302****Date: 21-10-2016****Subject Name: Mould Fabrication Technology - 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.
4. Use of programmable & Communication aids are strictly prohibited.
5. Use of only simple calculator is permitted in Mathematics.
6. English version is authentic.

- Q.1** Answer any seven out of ten. **14**
1. State any four advance fabrication techniques.
 2. State various tool materials use for spark erosion process.
 3. Write advantages of copying lathe.
 4. State applications of pantograph die sinking machine.
 5. State any two applications of jig boring machine.
 6. Name materials use for making master hobs.
 7. State significance of mold polishing.
 8. Give limitations of CNC machines.
 9. What is the use of 3D printing in rapid prototyping?
 10. State materials use for wires in wire cut EDM process.
- Q.2** (a) Give advantages of advance fabrication techniques over conventional methods. **03**
- OR
- (a) Explain the working principle of wire cut EDM process. **03**
- (b) Explain the spark erosion process with neat sketch. **07**
- OR
- (b) Explain wire cut EDM process and state advantages and disadvantages of it. **07**
- (c) Explain the principle of copying lathe. **04**
- OR
- (c) Draw a neat sketch of copying milling machine and label different parts. **04**
- Q.3** (a) State and explain in brief basic principle of pantograph die sinking. **03**
- OR
- (a) What are the disadvantages of pantograph die sinking machine? **03**
- (b) Explain various steps of cold hobbing process. **07**
- OR
- (b) Explain various hobbing steels. State advantages of hobbing process. **07**
- (c) Compare jig boring machine and copy milling machine? **04**
- OR
- (c) Explain the basic principle of jig boring machine. **04**
- Q.4** (a) List various polishing materials. **03**
- OR
- (a) Explain the concept of CAM. **03**
- (b) List various mold polishing methods and explain any one. **04**
- OR
- (b) Explain various components of CNC machines. **04**

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| | (c) | Explain various steps of electroforming process with neat sketch. | 07 |
| Q.5 | (a) | Explain stereo lithography process. | 04 |
| | (b) | Sketch the equipment for Fused Deposition Method and label different parts. | 04 |
| | (c) | Explain the significance of rapid prototyping. | 03 |
| | (d) | Write advantages of CNC machines. | 03 |
