

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER – III EXAMINATION –WINTER - 2018

Subject Code:3332303**Date: 28-11-2018****Subject Name: MOULD FABRICATION TECHNOLOGY-I****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.
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. Write down any two engineering materials
 2. List the non-metal engineering materials.
 3. Classify Steel based on Carbon content.
 4. Give the elements used in alloying the Steels.
 5. Write the examples of non-ferrous metals.
 6. Distinguish ferrous and non ferrous metals.
 7. Explain the importance of heat treatment.
 8. List the various heat treatment processes.
 9. Describe the applications of Drill machine.
 10. Briefly explain the principle of Boring machine.
- Q.2** (a) Write down the applications of pig iron materials. **03**
- OR
- (a) List the characteristics of stainless Steel. **03**
- (b) Explain the effect of Nickel and Manganese on the properties of Steel. **04**
- OR
- (b) Discuss the applications of Copper and its alloys. **04**
- (c) Explain the properties of engineering materials. **07**
- OR
- (c) List out the various applications of engineering materials. **07**
- Q.3** (a) List the advantages of Gas Nitriding process. **03**
- OR
- (a) Write down the advantages of Cyaniding process. **03**
- (b) Write short note on Flame Hardening Technique. **04**
- OR
- (b) Explain Normalizing process in brief. **04**
- (c) Explain various operations carried out by Lathe machine. **07**
- OR
- (c) List the advantages and disadvantages of Drill machine. **07**
- Q.4** (a) Give the applications of the Boring process. **03**
- OR
- (a) Write the types of Lathe machine. **03**
- (b) Draw and label the shaping machine. **04**
- OR

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| | (b) | List various applications of Milling operations. | 04 |
| | (c) | Explain Annealing process as a heat treatment technique. | 07 |
| Q.5 | (a) | List applications of Aluminum and its alloys. | 03 |
| | (b) | Classify the engineering materials. | 04 |
| | (c) | Explain about constructional details of horizontal milling machine. | 07 |
