Seat No.: _____ Enrolment No._____

# GUJARAT TECHNOLOGICAL UNIVERSITY

**BE - SEMESTER–V EXAMINATION – WINTER 2015**

**Subject Code: 153404** **Date:05/12/2015**

**Subject Name: Mould Engineering**

**Time: 10:30am to 1:00pm** **Total Marks: 70**

**Instructions:**

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

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|---|---|---|---|
| **Q.1** | **(a)** | What are the different parts of an injection mould? What are the different types of tools used in milling machine? | **07** |
| | **(b)** | Explain about shaping operation and what is the application of shaping machine in mould making. | **07** |
| **Q.2** | **(a)** | Describe the Electrical discharge machining with the help of a sketch. | **07** |
| | **(b)** | What are the applications of Wire cut EDM in Mould making? | **07** |
| | | **OR** | |
| | **(b)** | What are the different types of grinding operations? Explain. | **07** |
| **Q.3** | **(a)** | What are the materials used for electroforming operation? Explain the process of electroforming. | **07** |
| | **(b)** | What is hobbing process? What are the advantages of hobbing process? | **07** |
| | | **OR** | |
| **Q.3** | **(a)** | Write a short note on horizontal and vertical milling machines. | **07** |
| | **(b)** | What are the different coatings used for tools and mention the applications. | **07** |
| **Q.4** | **(a)** | What is surface roughness? Explain the effect of mould material on polishing. | **07** |
| | **(b)** | What are the different tools used for polishing of mould parts? What are the different steps involved in polishing? | **07** |
| | | **OR** | |
| **Q.4** | **(a)** | How texturing can be done on moulds? Explain about any one process. | **07** |
| | **(b)** | Describe the mechanism of metal cutting. | **07** |
| **Q.5** | **(a)** | What is the importance of inspection in mould making? Explain about procedure of inspection. | **07** |
| | **(b)** | Write a short note on Vernier caliper & Micrometer. | **07** |
| | | **OR** | |
| **Q.5** | **(a)** | How to check the hardness of a mould parts? Explain. | **07** |
| | **(b)** | What is an optical profile projector? How it will be useful in mould parts inspection. | **07** |

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