

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER – 3 • EXAMINATION – WINTER-2016

Subject Code:3332301**Date: 19-11-2016****Subject Name: Basic Mould Design****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. List out types of runner.
 2. List out various types of gate.
 3. List out various types of bolster.
 4. List out various ejection system.
 5. Describe the function of sprue puller.
 6. Write down parts of ejection elements.
 7. What is feed system?
 8. Give name of material construction of Guide bush, Guide pillar, Spure, Spure bush.
 9. Give name of a elements of two plate machine injection mold.
 10. Draw various runner layouts for 4 impression mold any two layout.
- Q.2** (a) Differentiate integer method and insert-bolster method. **03**
OR
- (a) Write short note on locating ring. **03**
(b) Give various types of bolsters and explain any one. **03**
OR
- (b) Write short note on feed system. **03**
(c) Define following. 1) Cavity 2) Sprue 3) Guide pin. **04**
OR
- (c) Define following. 1) Dowell 2) Gate 3) Guide bush. **04**
(d) Explain flat parting surfaces with neat sketch. **04**
OR
- (d) Sketch any three examples of angled parting surfaces. **04**
- Q.3** (a) Explain function, position and material of construction of guide bush. **03**
OR
- (a) Explain function, position and material of construction of guide pillar. **03**
(b) List out various types of runner and explain any one. **03**
OR
- (b) List out various types of gate and explain any one. **03**
(c) Explain balancing of runner with neat sketch. **04**
OR
- (c) Explain about gate location in detail. **04**
(d) List out different mechanisms used for returning ejector plate assembly. **04**
Explain any one in brief.

- OR
- (d) Explain frame type ejector grid. **04**
- Q.4** (a) Explain stripper plate ejection technique. **03**
- OR
- (a) Explain sleeve ejection technique. **03**
- (b) Sketch any two ejection elements. **04**
- OR
- (b) Describe cooling of circular cavity inserts. **04**
- (c) Draw plan and sectional elevation of hand injection mould for product of your Choice. **07**
- Q.5** (a) Sketch any two types of cavity insert cooling. **04**
- (b) Write short note on sprue puller. **04**
- (c) Why cooling required? Explain in brief. **03**
- (d) Explain U cooling system used for integer cavity plate cooling. **03**

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