

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VIII (OLD) - EXAMINATION – SUMMER 2017****Subject Code:182301****Date:04/05/2017****Subject Name: Plastics Mold & Die Design II****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.

- Q.1** (a) Describe the stripper bush ejection with the help of a sketch **07**  
 (b) What are the factors affecting shrinkage of product in injection moulds? How to consider shrinkage in injection moulds while designing? **07**
- Q.2** (a) Write a C program for the Shot Capacity. **07**  
 (b) Discuss helical channel Cooling for deep cores **07**
- OR**
- (b) Define: Layout; Heat Rods, Baffle cooling; Collapsible cores; undercut; finger-cam; O-ring **07**
- Q.3** (a) What is collapsible core? Write down the advantages and disadvantages of collapsible core. **07**  
 (b) Discuss Stripper Plate Ejection in detail. **07**
- OR**
- Q.3** (a) How heat rods & heat pipes extract heat from mould components? Explain. **07**  
 (b) [1] Work out the pitch and pitch circle diameter for the interconnecting groove design, given that: diameter of insert =25 mm, gap between inlet and outlet grooves = 2 mm, number of impressions=10, depth of groove=3 mm. **07**  
 [2] Discuss cooling of shallow inserts
- Q.4** (a) How bubbler cooling is better than baffle cooling? Explain. **07**  
 (b) Write a short note on (i) Pinch-off design (ii) Blow ration in blow moulds **07**
- OR**
- Q.4** (a) Discuss about cooling of Integer Cavities. **07**  
 (b) What are the different types of Extrusion dies? Explain about any two. **07**
- Q.5** (a) What are the different parts of Two plate fully automatic injection mould? Draw the single cavity two plate injection mould for a disc of diameter 100 mm thickness 5 mm. **07**  
 (b) What are the advantages and disadvantages on transfer Moulding? **07**
- OR**
- Q.5** (a) Discuss various mould designs of compression mould. **07**  
 (b) What are the design considerations before designing a blow mould? **07**

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