

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VIII EXAMINATION – SUMMER 2016****Subject Code:182301****Date:10/05/2016****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) What is shrinkage? Why plastic products shrink during processing? How to consider shrinkage effect in design of moulds? **07**
(b) Explain about the fully automatic injection moulds. **07**
- Q.2** (a) What is the importance of layout of ejection system? What are the different methods for ejecting products with internal undercuts? **07**
(b) Describe the stripper bush ejection with the help of a sketch. **07**
- OR**
- (b) What are the requirements of a cooling system? How to calculate the amount of heat to be extracted from moulds? **07**
- Q.3** (a) How heat rods & heat pipes extract heat from mould components? Explain. **07**
(b) Explain about hydraulic actuation in split moulds with the help of a sketch. **07**
- OR**
- Q.3** (a) Describe stripping internal undercuts with the help of a sketch. **07**
(b) What is collapsible core? Write down the advantages and disadvantages of collapsible core. **07**
- Q.4** (a) Write a short note on (i) Pinch-off design (ii) Blow ration in blow moulds **07**
(b) What are the design considerations before designing a blow mould? **07**
- OR**
- Q.4** (a) Describe the types of cooling systems used in a blow moulding with line diagram. **07**
(b) What are the advantages and disadvantages on transfer moulding? **07**
- Q.5** (a) Write a 'C' program for "no of impressions" in injection moulds. **07**
(b) Explain about offset dies with a neat sketch. **07**
- OR**
- Q.5** (a) How spring actuation system actuates the splits? Explain. **07**
(b) Describe the stripper plate ejection method with the help of a suitable sketch. **07**
