

GUJARAT TECHNOLOGICAL UNIVERSITY
ME - SEMESTER-I(New course)• EXAMINATION – WINTER- 2015

Subject Code: 2712408**Date:31/12/2015****Subject Name: Plastics Mould & Product Design Simulations****Time:2:30 pm to 5:00 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) Explain the types of mould clamping methods with neat sketches. **07**
(b) Explain plastic product design for flow and shape. **07**
- Q.2** (a) What is parting surface? Explain the types with sketches. **07**
(b) Discuss the influence of mould temperature over product quality. **07**
- OR**
- (b) Write about runner geometry and runner efficiency. **07**
- Q.3** (a) Prepare design checklists for blow mould and extrusion die. **07**
(b) Derive and explain the calculation for CAM track actuation with neat sketch. **07**
- OR**
- Q.3** (a) Explain the types of hot runner systems. **07**
(b) Explain the nomenclature of blow mould with neat sketch. **07**
- Q.4** (a) Explain the ways to determine number of cavities in compression moulds. **07**
(b) How sprue, runner and gate influence a successful moulding in transfer mould? **07**
- OR**
- Q.4** (a) Explain the factors to be considered in compression moulding. **07**
(b) Write about split moulds. **07**
- Q.5** (a) Write about design of integral hinges. **07**
(b) What are the parameters influencing part tolerance? Explain. **07**
- OR**
- Q.5** (a) How will you balance quality and economy for plastic products? **07**
(b) Explain the factors affecting shrinkage. **07**
