

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.

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| 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 |
