

GUJARAT TECHNOLOGICAL UNIVERSITY
Diploma Engineering - SEMESTER – III • EXAMINATION – WINTER 2012

Subject code: 332303**Date: 04/01/2013****Subject Name: Design Fundamentals of Moulds****Time: 02.30 pm - 05.00 pm****Total Marks: 70****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. English version is considered to be Authentic.

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|-------------|---|-----------|
| Q.1 | (a) Draw sectional elevation and plan of a hand injection mould for a small tray type product. | 10 |
| | (b) Define 'impression' of injection mould. Explain in brief about components of mould which form impression. | 04 |
| Q.2 | (a) Describe functions of guide pin and guide bush. | 07 |
| | (b) Give various types of bolsters and explain any two types in detail with neat sketches. | 07 |
| | OR | |
| | (b) What are different methods of incorporating core and cavity in an injection mould. Explain any one in brief. | 07 |
| Q.3 | (a) Write short note on locating ring. | 07 |
| | (b) What are the different mechanisms used for returning ejector plate assembly. Explain any one with neat sketch. | 07 |
| | OR | |
| Q.3 | (a) List various components used in an ejector assembly. Explain constructional and functional details of any one with neat sketch. | 07 |
| | (b) List and draw neat sketches of various ejector elements used in ejection techniques. | 07 |
| Q.4 | (a) Give classification of various types of parting surfaces used in injection moulds. Explain flat parting surface with neat sketches. | 07 |
| | (b) Define all components of feed system and draw neat sketch of mould section showing complete feed system with nomenclature. | 07 |
| | OR | |
| Q. 4 | (a) Draw neat sketches of different runner layouts used in multi-impression injection moulds. | 07 |
| | (b) List all the types of gates used in injection mould. Explain any one in brief with neat sketch. | 07 |
| Q.5 | (a) Explain integer cavity plate cooling with atleast one example by neat sketch. | 07 |
| | (b) List various methods for cooling of deep or long core inserts and explain constructional/functional details of any one. | 07 |
| | OR | |
| Q.5 | (a) Explain integer core plate cooling with atleast one example by neat sketch. | 07 |
| | (b) Describe cooling of circular cavity inserts by one method with neat sketch. | 07 |
