

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. - SEMESTER – IV • EXAMINATION – SUMMER • 2013****Subject code: 742401****Date: 14-05-2013****Subject Name: Advanced Mould Manufacturing Technology****Time: 10.30 am – 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) Explain different axes and motion nomenclature for CNC turning and machining centers. **07**
(b) Explain about machining cycles in CNC machining. **07**
- Q.2** (a) Explain the part programming structure with suitable example. **07**
(b) Discuss the significance of CAD/CAM in mould manufacturing. **07**
- OR**
- (b) Explain different components of CNC system with neat sketch. **07**
- Q.3** (a) Explain different tool materials and their applications. **07**
(b) Explain the types of milling cutters with neat sketches. **07**
- OR**
- Q.3** (a) Explain the injection mould design process in CAD software. **07**
(b) How reverse engineering is useful in mould manufacturing? Explain. **07**
- Q.4** (a) Write about G-codes. **07**
(b) Explain the factors to be considered for plastics product design. **07**
- OR**
- Q.4** (a) Explain the ball screw and nut mechanism in CNC machines. **07**
(b) Discuss the controls and user interface of CNC machines. **07**
- Q.5** (a) How is CNC machine better than conventional one? Explain. **07**
(b) Discuss the applications of CIM in mould manufacturing. **07**
- OR**
- Q.5** (a) Explain 3D printing and FDM. **07**
(b) Explain the function of 3D scanner and its application in mould manufacturing. **07**
