

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – II • EXAMINATION – WINTER • 2014

Subject code: 1725008

Date: 05-12-2014

Subject Name: Rapid Prototyping

Time: 02:30 pm - 05:00 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 factors, which are influencing on product design. **07**
(b) Explain the new product development process with suitable example. **07**
- Q.2** (a) Write the short note : Types of Geometric Models **07**
(b) Describe the applications of virtual and augmented reality. **07**
- OR**
- (b) Explain the concept of discretization with suitable example. **07**
- Q.3** (a) Write the guidelines for Design for assembly (DFA). **07**
(b) What are the benefits of NC machines as compared to conventional manufacturing machines? **07**
- OR**
- Q.3** (a) Describe the features of CAPP. **07**
(b) List the types of sensors those are use for industrial robots and describe any one. **07**
- Q.4** (a) Write the short note on generative type computer aided process planning. **07**
(b) Write the issues associated with the rapid prototyping processes. **07**
- OR**
- Q.4** (a) Explain the concept of concurrent engineering and its methodology. **07**
(b) Write the short note on Group Technology.
- Q.5** (a) Describe the components of CIM. **07**
(b) Write the advantages and disadvantages of laminated object manufacturing (LOM). **07**
- OR**
- Q.5** (a) Write the short note on epoxy tooling process **07**
(b) Explain Stereolithography and enlist its limitation. **07**
