

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-VII • EXAMINATION – SUMMER • 2015**

**Subject Code: 173403**

**Date: 12/05/2015**

**Subject Name: Computer Integrated Manufacturing**

**Time: 02.30 PM to 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) Draw and explain Process type layout & Group Technology layout. **07**  
(b) Draw and explain FMS loop line layout system. **07**
- Q.2** (a) Classify Automation. Explain any one type of Automation in detail. **07**  
(b) Explain the applications of Bar codes in Manufacturing process. **07**
- OR**
- (b) Explain computerized elements of a CIM system with sketch of wheel diagram. **07**
- Q.3** (a) Sketch and explain basic structure of OPITZ system of parts classification and coding. **07**  
(b) Write the advantages of Cellular Manufacturing System. Write the types of Machine Cell Design of Cellular Manufacturing. **07**
- OR**
- Q.3** (a) Write short notes on Island of Automation. **07**  
(b) Explain three phases in a shop floor control system. **07**
- Q.4** (a) Write any seven principle of material handling. **07**  
(b) Explain how Workpart transfer Mechanisms takes place in Automated Production Line? **07**
- OR**
- Q.4** (a) Explain CIM – Open System Architecture approach with suitable example. **07**  
(b) Explain CIM architecture elements with three key building blocks. **07**
- Q.5** (a) Write the benefits of CAPP. Explain generative CAPP approach. **07**  
(b) Write the functions of a Material Handling & Storage Systems in FMS. **07**
- OR**
- Q.5** (a) Write the types of conveyer. Explain any two convey system in detail and its uses. **07**  
(b) Write the advantages and disadvantages of conventional storage equipment with relevant typical applications. **07**

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