

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**PDDC - SEMESTER-VIII • EXAMINATION – WINTER - 2016**

**Subject Code: X81903****Date: 24/10/2016****Subject Name: COMPUTER INTEGRATED MANUFACTURING****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 different types of CAPP system **07**  
(b) Explain MRP-1 and MRP-2. **07**

- Q.2** (a) Differentiate between NC, CNC and DNC **07**  
(b) What is group technology? Discuss different types of coding system in group technology **07**

**OR**

- (b) Explain different types of flexibility in Flexible manufacturing system **07**

- Q.3** (a) Explain technical features of robot **07**  
(b) Explain subroutine, do loop and canned cycle in CNC manual part programming **07**

**OR**

- Q.3** (a) What are auxiliary statements in APT? Explain with suitable example any three auxiliary commands in APT. **07**  
(b) Discuss CIM Wheel **07**

- Q.4** (a) Explain robot programming language. **07**  
(b) Discuss various types of FMS layout. Also Discuss AGV and ASRS **07**

**OR**

- Q.4** (a) Discuss different types of controlling systems in CNC **07**  
(b) Discuss various types of tape readers used in NC machines. **07**

- Q.5** (a) Explain product flow analysis with suitable example. **07**  
(b) Discuss the scope of CIM. Also Discuss various types of manufacturing systems. **07**

**OR**

- Q.5** (a) Explain different applications of Robot. **07**  
(b) Discuss the computer aided production management **07**

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