

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**PDDC - SEMESTER- VIII • EXAMINATION – SUMMER 2015**

**Subject Code: X81903****Date: 15/05/2015****Subject Name: Computer Integrated Manufacturing****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 G00, G01 and G03 codes with appropriate example. **07**  
(b) Define GT. Explain OPITZ coding system for GT. **07**
- Q.2** (a) Differentiate the NC and CNC machines. **07**  
(b) State various models of CIM. Explain any one in detail. **07**
- OR**
- (b) What are the benefits of CIM ? **07**
- Q.3** (a) What is canned cycles ? Explain any three canned cycles with their syntax. **07**  
(b) What are the auxiliary statements in APT language ? Explain with suitable Examples any four auxiliary commands. **07**
- OR**
- Q.3** (a) Explain different types of flexibilities in FMS. **07**  
(b) Explain different FMS components. **07**
- Q.4** (a) Explain AS/RS and AGV for manufacturing system. **07**  
(b) Explain tool supply system in FMS. **07**
- OR**
- Q.4** (a) Explain Retrieval CAPP system. **07**  
(b) Explain each inputs of the MRP system. **07**
- Q.5** (a) Explain CIM Wheel. **07**  
(b) Explain various sensors and actuators used in robots. **07**
- OR**
- Q.5** (a) Explain common robot configurations. **07**  
(b) Explain different applications of robots. **07**

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