

**GUJARAT TECHNOLOGICAL UNIVERSITY****M.E Sem-I Remedial Examination January/ February 2011****Subject code: 710803****Subject Name: Computer Aided Production Management****Date: 02 /02 /2011****Time: 02.30 pm – 05.00 pm****Total Marks: 60****Instructions:**

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

- Q.1** (a) Explain the Exponential Smoothing method of forecasting. Write the algorithm of the method. Explain the significance of Smoothing Constant  $\alpha$ . **06**  
(b) "Forecasting is an important component of production planning" – Justify it by giving suitable example of production industry. **06**

- Q.2** (a) Explain the Johnson's method of sequencing the N jobs through Three machines. Write the algorithm of the method. **06**  
(b) Discuss the procedure to prepare automated layout using the computer software. **06**

**OR**

- (b) State the objectives of Plant Layout Design. Explain the algorithm and procedure of CRAFT. **06**

- Q.3** (a) Discuss the benefits of Group Technology. State its applications and advantages giving suitable industrial examples. **06**  
(b) Explain the basic structure of Opitz System. Sketch and classify a component stating meaning of each digit. **06**

**OR**

- Q.3** (a) State the objectives of Group Technology. Explain the problems which can arise in implementing it. **06**  
(b) Discuss the necessity of a structure and types of structure used in coding systems stating illustrations. **06**

- Q.4** (a) Explain Retrieval type Computer Aided Process Planning with the help of a block diagram and suitable industrial example. **06**  
(b) Make all suitable assumptions and prepare the process plan for the cylindrical pin having the countersunk ends. **06**

**OR**

- Q.4** (a) Explain the basics and the inputs to MRP System. Sketch the sample of MRP output table. **06**  
(b) What is product structure? Discuss different product structures. **06**

- Q.5** (a) Discuss the factors involved in ERP implementation. **06**  
(b) Why is it necessary to control the shop floor? Discuss the different parameters which can affect the control of shop floor. **06**

**OR**

- Q.5** (a) Explain the Computer Aided Inspection giving suitable example. **06**  
(b) Explain the application of Simulation in machine shop stating its objectives. **06**

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