GUJARAT TECHNOLOGICAL UNIVERSITY M. E. - SEMESTER – I • EXAMINATION – WINTER • 2014

Subject code: 715001N Date: 01-12-2014 **Subject Name: Production and Operation Management** 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** Define the term õManagement Information Systemö. Explain the role of decision 07 making in designing MIS. Explain different objectives for development of production and operation **07** (b Strategies. Enlist various Qualitative and Quantitative methods for forecasting. Discuss Box **Q.2** 07 Zerkins method of forecasting with suitable example. Explain OPITZ classification system with suitable example. 07 OR Explain different forecasting errors. 07 (b Q.3Explain the concept of facility planning. 07 (a) Explain the concept of capacity planning. (b 07 OR Explain the concept of Time-Cost trade off. **Q.3** (a) 07 Explain Resource allocation with a suitable example. 07 (b **Q.4** Explain the concept of Just in Time. 07 (a) Describe the application of software packages for queuing models. (b 07 OR 0.4 (a) Explain the concept of Master Production Schedule. 07 Explain decision support system. 07 (b Define the terms õProjectö and õProject managementö. Explain the various stages **Q.5 07** (a) of project life cycle with sketch. Explain Line of Balancing concept with suitable example. **07** (b OR **Q.5** Explain the following Facility layouts: Jo shop process layout, Product oriented 07 layout, cellular layout and Group technology layout. Define a simulation model. Distinguish between deterministic and stochastic 07 simulation models.
