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## GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-VIII • EXAMINATION – SUMMER 2013

**Subject Code: 182502** Date: 13/05/2013 **Subject Name: Recent Advances in Manufacturing** Time: 10:30 am TO 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. How zero inventory concept is feasible? Apply this concept to industry of your choice 07 **Q.1** (a) and derive the merits and demerits of it. Use ERP as a tool of improving the productivity. Take a case and explain increase in 07 **(b)** productivity from present status. **Q.2** Carry out cost reduction in an industry of your choice applying the value analysis (a) 07 theory. Which manufacturing philosophy is used for continuous improvement in an **(b)** organization? To which industry it can be applicable? Is it possible in an Indian industry? How? OR Optimize transport network of your choice with SCM technique. Is any other option 07 (b) possible? **Q.3** How an information flow network is designed? Select an organization and design the information flow network for it. Can you suggest any further improvement? Utilize a Japanese concept for improvement in inventory control system. How it is **(b)** applied to inventory management? What is its effect on inventory? Q.3 Which hardware and software are required for implementing the ERP? Is the software 07 (a) useful to organization? How? Select a product of your own choice and carry out E ó Manufacturing. What short of **(b)** difficulties do you face? In which situation it is worth? State the areas of organization affected by POKAYOKE? Specify the activities **Q.4** 07 (a) carried out for the same. What is JIDOKA meant for? What was carried out before implementing it? What (b) sharp benefits can be derived by implementing it? **Q.4** Clarify objectives and applications of MIS with suitable examples. **07** (a) What is SMED? Where it can be applicable? How does it work? Derive its merits and **(b)** demerits with reasons. What is JIT? Where this concept deviates in Indian industry? What can be done to **Q.5** 07 (a) minimize such causes? Can the barriers removed? Can it be run successfully? What is the meaning of 5S? Apply this concept to a modern hospital and state the **(b)** 07 results. OR Compare ancient traditional manufacturing with recent advances in manufacturing. **Q.5** 07 (a) What are the significance that you notice between them? Who is the founder of Toyota Production System? How he started and implemented? 07 **(b)** What were the outcomes?

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