

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.

- Q.1** (a) How zero inventory concept is feasible? Apply this concept to industry of your choice and derive the merits and demerits of it. **07**
- (b) Use ERP as a tool of improving the productivity. Take a case and explain increase in productivity from present status. **07**

- Q.2** (a) Carry out cost reduction in an industry of your choice applying the value analysis theory. **07**
- (b) Which manufacturing philosophy is used for continuous improvement in an organization? To which industry it can be applicable? Is it possible in an Indian industry? How? **07**

OR

- (b) Optimize transport network of your choice with SCM technique. Is any other option possible? **07**

- Q.3** (a) How an information flow network is designed? Select an organization and design the information flow network for it. Can you suggest any further improvement? **07**
- (b) Utilize a Japanese concept for improvement in inventory control system. How it is applied to inventory management? What is its effect on inventory? **07**

OR

- Q.3** (a) Which hardware and software are required for implementing the ERP? Is the software useful to organization? How? **07**
- (b) Select a product of your own choice and carry out E ï Manufacturing. What short of difficulties do you face? In which situation it is worth? **07**

- Q.4** (a) State the areas of organization affected by POKAYOKE? Specify the activities carried out for the same. **07**
- (b) What is JIDOKA meant for? What was carried out before implementing it? What sharp benefits can be derived by implementing it? **07**

OR

- Q.4** (a) Clarify objectives and applications of MIS with suitable examples. **07**
- (b) What is SMED? Where it can be applicable? How does it work? Derive its merits and demerits with reasons. **07**

- Q.5** (a) What is JIT? Where this concept deviates in Indian industry? What can be done to minimize such causes? Can the barriers removed? Can it be run successfully? **07**
- (b) What is the meaning of 5S? Apply this concept to a modern hospital and state the results. **07**

OR

- Q.5** (a) Compare ancient traditional manufacturing with recent advances in manufacturing. What are the significance that you notice between them? **07**
- (b) Who is the founder of Toyota Production System? How he started and implemented? What were the outcomes? **07**
