BACHELOR OF TECHNOLOGY IN MECHANICAL ENGINEERING (COMPUTER INTEGRATED MANUFACTURING)

Term-End Examination

June, 2011

BME-013 : PRODUCTION MANAGEMENT

Time : 3 hours *Maximum Marks : 70*

Note : *Attempt **10** questions in all. **Three** each from **section A** and **B** and **two each** from **section C** and **D**. Attempt questions serialwise. Assume any missing data suitably.*

SECTION - A

Attempt ***any three*** questions.

1. Why are Layout important ? Classify Layout, on the basis of production volume. Discuss a suitable Layout for teaching workshop practice course to B. Tech. students. 7

2. Define Project management and Project planning. What are the merits and demerits of pure project, functional project and matrix project management ? 7

3. Explain PERT. What are the basic assumptions used in this technique ? Draw neat sketch of beta distribution curve.

4. What are Casual forecasting methods ? Briefly describe any four of them.

SECTION - B

Attempt ***any three*** questions.

5. What are the relevant cost associated with aggregate production ? 7

6. What are the objectives of MRP ? Draw neat sketch of fundamental structure of MRP procedure. 7

7. What are the main features of ERP ? Make a table showing organisational impacts of ERP/IT capability. 7

8. Define economies and diseconomies of scale. Why economies of scale drive costs down as output increases ? Explain the principle reasons. 7

SECTION - C

Attempt ***any two*** questions.

9. What do you understand by logistics ? Make a neat sketch of basic block diagram to understand logistics. 7

10. Discuss an industrial application of theory of constraints. Also explain bottleneck and non-bottleneck. 7

11. What are the benefits and risks associated with SCM ? Explain Bullwhip effect and factors responsible for it. 7

SECTION - D

Attempt *any two* questions.

12. Define inventory and its purpose. List down assumptions made in formulating simple EOQ model. 7

13. What do you understand by job sequencing ? A machine operator has to perform two operations, turning and threading on a number of jobs. The time required to perform these operations are given in Table 1. Determine order in which these jobs must be processed in order to minimize the total time required to turn all the jobs. Solve by Johnson Rule. 7

Job	Time for turning	Time for threading
1	3	8
2	12	10
3	5	9
4	2	6
5	9	3
6	11	1

14. Discuss Kanban System. What do you understand by push and pull system ? Explain with-drawal Kanban and production Kanban. 7