

02022

**BACHELOR OF TECHNOLOGY IN
MECHANICAL ENGINEERING
(COMPUTER INTEGRATED
MANUFACTURING)**

Term-End Examination

December, 2010

BME-013 : PRODUCTION MANAGEMENT

Time : 3 hours

Maximum Marks : 70

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

SECTION - A

Attempt any three questions:

1. Define Production Management. Discuss various areas of challenges for the Production Managers. Use examples to elaborate. 7
2. Define facility layout. What are the main objectives of a layout? List principles related to facility layout. 7

3. List steps involved in Break Even Analysis (BEA). Explain the procedure of performing break-even analysis using an appropriate example. How is Break even analysis different from Cross over charts ? Discuss basic assumptions in BEA. 7
4. Define time series for casting methods. Make the graphical diagrams of trend line, business cycle, seasonal variations and random variations. 7

SECTION - B

Attempt *any three* questions.

5. Explain aggregate Production Planning environment along with suitable diagram. Also define aggregate production strategies. 7
6. What do you understand by MRP-II. How does MRP-II differ from MRP-I ? 7
7. What are the various tools for capacity Planning? Draw decision tree for capacity expansion. 7
8. Write the basic procedure of work study. Draw a neat diagram showing relationship of method study with work measurement. 7

SECTION - C

Attempt *any two* questions:

9. What are the factors which influence selection of transportation mode. Also write the stages for effective selection of transportation mode. 7
10. Explain synchronous manufacturing. Compare traditional approach and synchronous manufacturing approach. 7
11. Explain Stevens Model of supply chain integration. Draw neat diagram showing various stages. 7

SECTION - D

Attempt *any two* questions:

12. Find the economic order quantity and the reorder point. 7

Given ;

Annual demand (D) = 2000 units.

Average daily demand (d) = $2000/365$

Ordering cost (S) = Rs.4.2 per order

Holding cost (H) = Rs.1.75 per unit per year

Lead time (L) = 5 days

Cost per unit (C) = Rs.10.75

What quantity should be ordered?

13. Define J I T. What are the important characteristics of J I T. 7
14. Explain Balance Score Card System with help of suitable diagram. Create your own balance score card for your organisation. 7
