

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

Term-End Examination

December, 2013

BME-013 : PRODUCTION MANAGEMENT

Time : 3 hours

Maximum Marks : 70

Note : Attempt 10 parts in all. Attempt 5 (Five) questions each from section A and B . Use of calculator is allowed.

SECTION-A

1. What are the different functional units of an organization ? What are the roles played by the production unit ? Explain. 7
2. Explain the procedure of performing break-even analysis. What are the various applications of cost volume profit analysis ? 7
3. What do you understand by demand forecasting ? What are the conditions required for precise forecasting ? Explain. 7
4. What are the characteristics of production system to support MRP ? What is the effect of lot size in MRP ? 7

5. What is the aggregate production planning ? What are the different categories of production schedule ? 7
6. Define work sampling and correlate it with the reasonableness of labour costs. 7

SECTION-B

7. Define logistics and explain it with the help of block diagram. Explain the various factors of logistics with special reference to transportation. 7
8. Explain the concepts involved in Theory of Constraints (TOC). What are the different steps involved in TOC ? Also explain the term constraint, bottleneck, non-bottleneck and throughput. 7
9. What are the various components of a supply chain ? Explain the performance attributes of a supply chain. 7
10. What is balance scorecard ? What are the various functions of balance scorecard ? Create a balance scorecard for your organization. 7
11. Find the economic order quantity (EOQ) and the reorder point. Given 7
 Annual demand (D) =2,000 Units
 Average daily demand (d) = 2,000/365
 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 ?
12. How is JIT implemented in service industries ? Describe the advantages of JIT system. 7