

**BBA 4th Semester Examination, 2024**  
**Subject : Production and Materials Management**  
**Course: BBA-4.3**

**Time: 4 Hours**

**Full Marks: 80**

*The figures in the right hand margin indicate full marks.*

*Candidates are required to give their answers in their own words  
as far as practicable.*

*Answer question 1 and any five from the rest.*

1. Answer any ten questions. 2×10=20
  - (a) Define production system.
  - (b) What do you mean by batch production?
  - (c) What is meant by plant layout?
  - (d) Define work study.
  - (e) What is routing?
  - (f) Define 'operating decision' with example.
  - (g) What is meant by selective control of inventory?
  - (h) Define work measurement.
    - (i) What is JIT?
    - (j) Why do you need production planning and control?
  - (k) What is aggregate planning?
  - (l) What is material budgeting?
  - (m) What are the main objectives of materials management?
  - (n) What are the inputs needed by Materials Requirement Planning (MRP)?
  - (o) What is 'Pegging'?
2.
  - (a) Briefly explain the different classes of production systems with suitable examples.
  - (b) Discuss the factors influencing plant location. 6+6
3.
  - (a) Explain the functions of Master Production Schedule (MPS).
  - (b) Briefly discuss the process of capacity planning. 4+8

4. (a) What is Material Requirement Planning (MRP)?
- (b) A manufacturer has to supply his customers 600 units of his product per year. Shortages are not allowed and the inventory carrying cost amounts to Rs. 0.60 per unit per year. The set-up cost per run is Rs. 80.
- Find:
- Economic Order Quantity.
  - The minimum average yearly cost.
  - The optimum number of orders per year.
  - The optimum period of supply for optimum order.
  - The increase in the total cost associated with ordering 40 per cent less than EOQ.
- 2+10
5. (a) During a work sampling study, an operator was found to be idle 20% of the time. He produced 100 components in 8 hours study period. He was assigned a rating of 120%. Find the normal time per unit of the operation.
- (b) Define:
- Normal Time
  - Standard Time
  - Synthetic Time
- 6+6
6. (a) What do you mean by Total Quality Management (TQM)? Explain the benefits of TQM.
- (b) Explain the prerequisites of implementing JIT. 6+6
7. (a) Write a short note on Bill of Materials (BOM).
- (b) What is materials codification? What are the advantages of codification? 6+6
8. (a) State the role of quality circle in quality management and establish the philosophy of quality circle activities.
- (b) What are the effects of low stock holding and high stock holding?
- (c) What is statistical process control? 6+4+2
9. (a) What kinds of control can be exercised in maintaining quality standards? Explain.
- (b) Briefly discuss the major aspects to be considered in the planning part of quality management. 6+6
10. Write short notes on *any two* of the the following: 6×2
- Control Charts
  - Process design
  - Selection of suppliers