BBA (Honours) 4th Semester Examination, 2023

Subject : Production and Materials Management

Paper : BBA-4.3

Time: 4 Hours **Full Marks : 80**

The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.

Answer question no. 1 *and* any five *from the rest.*

1. Answer *any ten* questions: 2×10=20

(a) What do you mean by production system?

(b) What is job shop production?

(c) What is Production Planning and Control?

(d) Define 'dispatching'.

(e) Based on the following information, compute the efficiency. Effective capacity = 40 trucks per day, actual output = 36 trucks per day.

(f) Define 'aggregate planning'.

(g) What is a functional layout?

(h) Define 'Economic Order Quantity (EOQ)'.

(i) What is ISO?

(j) If the total allowances (personal time, fatigue and unavoidable minor delay) are agreed upon as 16% and if the normal time of an element is 0.210 minutes, what is the standard time for a good industrial engineer?

(k) Define 'productivity'.

(l) What are the main objectives of materials management?

(m) Define Total Quality Management (TQM).

(n) What is a 'Bill of Material (BOM)'?

(o) What is meant by JIT inventory?

2. (a) Explain the objectives of production management.

(b) What is mass production? What are its characteristics and advantages? 6+6=12

3. Discuss the principles of plant layout. 12

4. (a) What are the guidelines for aggregate planning?

(b) Explain the main functions of Master Production Schedule (MPS).

(c) What is capacity planning?

5. (a) Define the term 'work study'. List the benefits of work study.

(b) Distinguish between time study and work sampling.

(c) Enumerate the various steps involved in work measurement. 5+3+4=12

6. (a) Explain the concept of Total Quality Management (TQM). In relation to TQM, explain the following terms:

(i) Continuous improvement

(ii) Customer focus

(b) Write a short note on Quality Circles. 6+6=12

7. (a) In the context of materials management, explain the following terms:

(i) Economic make-or-buy

(ii) Favourable supplier relations

(b) Define the following issues used in MRP system:

(i) Lot-sizing

(ii) Pegging

(iii) Cycle counting

(iv) Time fence 4+8=12

8. (a) What is inventory? Explain the reasons for keeping inventories. Why does an organisation need to control inventory?

(b) An oil engine manufacturer purchases lubricants at the rate of Rs. 42 per piece from a vendor. The requirements of these lubricants are 1800 per year. What should be the ordering quantity per order, if the cost per placement of an order is Rs. 16 and inventory carrying charges per rupee per year is 20 paisa? 8+4=12

9. (a) Briefly discuss the parameters of purchasing.

(b) The annual demand for a product is 1,00,000 units. The rate of production is 2,00,000 units per year. The set up cost per production run is Rs. 500. The variable cost of the item is Rs. 10 per unit and the carrying cost is 20% of the average cost of the item. What is the optimum production lot size? 7+5=12

10. Write short notes on (*any two*): 6×2=12

(a) Quality control procedure

(b) Economic Order Quantity (EOQ)

(c) Forward and Backward scheduling