(i) Printed Pages: 2 Roll No. .....

(ii) Questions : 14 Sub. Code : 0 8 3 2

Exam. Code: 0 0 1 5

## Bachelor of Commerce 5th Semester (1129)

## PRODUCTION AND OPERATION MANAGEMENT Paper—BCM-504

Time Allowed: Three Hours] [Maximum Marks: 80

**Note:**— (1) Attempt any *four* questions from Section-A.  $(5\times4=20)$ 

(2) Attempt any *two* questions each from Section-B and Section-C. (15×4=60)

## **SECTION**—A $(5\times4=20)$

- 1. Define the concept of Logistic Management.
- 2. Write down the steps in Production Process.
- 3. Explain ABC analysis of Material Management.
- 4. Write down key points/tips for Network Diagram (PERT/CPM).
- Calculate the EOQ, Re-order period, No. of orders,
   P. Year and Total Variable Cost of Inventory.

Demand = 50,000 units p.a.

Ordering Cost = Rs. 3 p. order, Inspection Cost is Rs. 12 p. order, Interest Cost Rs. .06 p.u. p.a.

Deterioration and Obsolescence Cost Rs. .004 p. unit p.a. Storage Cost Rs. 1,000 p.a. for 50000 units.

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6. Find optimal sequence as to minimize the total processing time on assembling — polishing machine :

Items	1	2	3	4	5	6
Assembling	8	10	6	7	9	14
Polishing	5	9	10	8	12	8

**SECTION—B** 
$$(15 \times 2 = 30)$$

7.	Activity	1-2	1-3	1-4	2-5	3-5	3-6	3-7	4-6	5-7	6-8	7-8
	Duration			41				_		•		
	(Days)	3	8	9	4	7	11	5	7	3	6	6

Find critical path and all floats/slacks.

- 8. Differentiate between PERT and CPM.
- 9. "Production and operation management is the management of an organisation's production system, which converts inputs into the organisation's products and services." Discuss.
- 10. What is sequencing problem? Give its essential characteristics.

**SECTION—C** 
$$(15 \times 2 = 30)$$

11. A factory requires 1500 units of an item per month, each costing Rs. 27. The cost per order is Rs. 150 and the inventory carrying cost is 20% of the average inventory. Find out the EOQ and the no. of orders per year.

Would you accept a 2% price discount of a minimum supply quantity of 1200 units?

Compare the total cost in both cases.

- 12. What are the various components of supply chain of a business unit? Explain.
- 13. Explain:
  - (a) JIT
  - (b) Time Study Vs. Motion Study
  - (c) Logistics Management.
- 14. Define the terms set-up cost, holding cost and shortage or penalty cost as applied to an inventory problem.

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