

(i) Printed Pages : 4]

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(ii) Questions : 14]

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**Bachelor of Commerce 5th Semester  
Examination**

**1127**

**PRODUCTION AND OPERATION MANAGEMENT  
Paper : BCM-504**

**Time : 3 Hours]**

**[Max. Marks : 80**

**Note :-** (i) Attempt any *four* questions from Section A.  
(ii) Attempt any *two* questions each from Section B  
and C.

**Section-A**

1. What do you mean by Safety Stock ?
2. Write down the steps in production process.
3. Describe the relevance of strategic planning in production and operations management.
4. Define the concept of Logistics Management.

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**Turn Over**

5. Jobs

Machine A

Machine B

1	2	3	4	5
5	1	9	3	10
2	6	7	8	4

Processing Time in Hours.

Determine a sequence for the five jobs that will minimize the elapsed time.

6. Find out the reorder level from the following information :

(a) Minimum stock, 1,000 Units

(b) Maximum stock, 2,000 Units

(c) Time required for receiving the material, 15 days

(d) Daily consumption of material, 50 units  $4 \times 5 = 20$

### Section-B

7. "Production and operation management is the management of an organisation's production system, which converts inputs into the organisation's products and services." Discuss.

8. Demand forecasting is essential in production and operation management. Do you agree with the statement ? Support your answer with suitable examples.

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9. Describe the various factors which may increase or decrease the production capacity of an organisation.
10. The normal and crash duration with cost for various activities are given below. The indirect cost for the supervision of the work is Rs. 2,000 per week :
- Draw a network diagram for these activities showing critical path.
  - What is the normal duration and total normal cost for the completion of the project ?
  - Crash the relevant activities systematically to bring down the project duration to 11 weeks. What is the total cost then ?

Activity	Time (Weeks)		Cost (Rs.)	
	Normal	Crash	Normal	Crash
1-2	1	1	5,000	5,000
2-3	3	2	5,000	12,000
2-4	7	4	11,000	17,000
3-4	5	3	10,000	12,000
3-5	8	6	8,500	12,500
4-5	4	2	8,500	16,500
5-6	1	1	5,000	5,000
				$2 \times 15 = 30$

Turn Over

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### Section-C

11. Explain in detail 'Motion study'. What are the various techniques used for motion study ?

12. What are the various components of supply chain of a business unit ? Explain in detail.

13. Write short notes on the following :

(a) Principles of purchase management

(b) Time study vs. Motion study

(c) Just in Time (JIT)

14. ABC Ltd. uses 1200 units per month of an electronic component each costing Rs. 2. Placing an order costs Rs. 50 and carrying cost is 6% per year of the average inventory :

(a) Find E. O. Q

(b) If the company gets 5% discount. If it places single order, should they accept the discount offer ?

$$2 \times 15 = 30$$