

Code No: 763AA

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**MBA III Semester Examinations, March/April - 2022**  
**PRODUCTION AND OPERATIONS MANAGEMENT**

Time: 3 Hours

Max.Marks:75

**Answer any five questions**  
**All questions carry equal marks**

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- 1.a) Define the concept of Operations Management with its Functional Subsystems of Organization.
- b) Compare and Contrast difference between Flow, Job Shop and Batch production systems. [8+7]
- 2.a) Identify and explain different elements of Functional Strategies with suitable examples.
- b) Discuss different steps involved in product design with suitable examples. [8+7]
- 3.a) What are the advantages and disadvantages of Standardization in Operations Management.
- b) Define Value Engineering. Discuss various steps involved in Value Engineering Procedure. [8+7]
4. Potential locations of A, B and C have the cost structures shown in below table, for manufacturing a product expected to sell for Rs 2700 per unit. By using Break Even Analysis, find the most economical location for an expected volume of 2000 units per year. [15]

Site	Fixed Cost per Year Rs.	Variable cost Per Year Rs.
A	6,000,000	1500
B	7,000,000	500
C	5,000,000	4000

5. We have five jobs, each of which must go through the two machines A and B in the order AB. Processing times are given in the table below.

Job	1	2	3	4	5
Machine -A	10	2	18	6	20
Machine -B	4	12	14	16	8

- a) Determine a sequence for the five jobs that will minimize the elapsed time t
- b) Identify Idle time for Machine-A
- c) Identify idle time for Machine-B [5+5+5]
- 6.a) Explain different advantages and limitations of Product Layout.
- b) Identify different elements to Determine X- Coordinates model of New Facilities. [8+7]

- 7.a) Define Scheduling and also explain different types of Scheduling with suitable examples.
- b) What are the different components involved in integrated material management? [8+7]
- 8.a) Explain ABC technique of inventory control.
- b) A company uses every month 1500 units of a component consisting of Rs.1.20 each. Each purchase order costs Rs.50 and the inventory carrying cost is 6% per year of the average inventory. Find
- i) Identify EOQ
- ii) If there is a 5% discount for single order, is it worth? [7+8]

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