

**MASTER OF BUSINESS ADMINISTRATION
SECOND SEMESTER
PRODUCTION AND OPERATION MANAGEMENT
MBA – 206**

**SET
D**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

(Objective)

Marks: 20

Choose the correct answer from the following:

1 × 20 = 20

1. Which of the following is a method of finding optimal feasible solution for transportation?
 - a. Shortest Path Method
 - b. Critical Path Method
 - c. Voggels Approximation Method
 - d. None of the Above
2. Lean manufacturing was largely created by
 - a. Toyota Motors
 - b. Benz Motors
 - c. Ford Motors
 - d. None of the above
3. Which Certification is related to QMS (Quality management Systems)?
 - a. ISO 26000
 - b. ISO 28000
 - c. ISO 9001:2008
 - d. ISO 31000
4. Which of the following is NOT a form of inventory in a manufacturing unit?
 - a. Finished Goods
 - b. Raw Materials
 - c. Semi Finished goods
 - d. Machinery
5. Which trend involves businesses shifting from producing goods to offering services that complement their products?
 - a. Standardization
 - b. Switching
 - c. Servitization
 - d. Cross Functioning
6. Which of the following is NOT a major factor regarding of Process Decision?
 - a. Cost of Production
 - b. Quality of Product
 - c. Customer Approval
 - d. Volume of Production
7. Which one of the following should be done to ensure judicious use of resources?
 - a. Buying materials a lower cost
 - b. Over stocking of resources
 - c. Proper Allocation of Resource
 - d. Under Stocking of Resources
8. In which Layout, machines are grouped in one sequence?
 - a. Group Technology
 - b. Product/Line Layout
 - c. Fixed Position Layout
 - d. Process Layout
9. Which of the following is NOT a factor considered for location?
 - a. Political & Economic Stability
 - b. Labor Availability
 - c. Customer Preferences
 - d. Proximity to the market
10. Which theory suggests that the location of a manufacturing facility should be determined by the minimization of transportation costs?

- a. Factor Proportions Theory
 - b. New Economic Geography Theory
 - c. Von Thunen's Model
 - d. Weber's Theory of Industrial Location
11. was a system of mass production where workers were stationed along a moving conveyor belt and each performed a specific task in the assembly process.
- a. Toyota Process
 - b. Mercedes Flow Line
 - c. Ford assembly line
 - d. None of the above
12. One of the primary characteristics of modern production and operation function is its focus on meeting the needs and expectations of
- a. Production Manager
 - b. Logistics Manager
 - c. Customers
 - d. Supplier
13. Modern production and operation function places a high emphasis on and reducing the environmental impact of production.
- a. Equality
 - b. Durability
 - c. Sustainability
 - d. Transferability
14. Which function involves making macroscopic decisions about the overall process route for converting raw materials into finished goods?
- a. Product Design
 - b. Warehouse Design
 - c. Layout Design
 - d. None of the above
15. Which production process is suitable for variety of products in varying volumes?
- a. Job Process
 - b. Project Production
 - c. Batch Process
 - d. Assembly Line
16. Production can be viewed as a system that involves a series of interrelated..... processes and components.
- a. Rules and Regulations
 - b. Processes and components
 - c. Operations
 - d. Standards
17. Production is a critical organizational function that involves.....into finished goods or services that can be sold to customers.
- a. Identifying opportunities
 - b. Developing Mechanism
 - c. Transforming raw materials
 - d. Reducing Wastage
18. Which function of Production involves determining the organization's production capacity and ensuring that it is aligned with demand?
- a. Layout Planning
 - b. Process Planning
 - c. Capacity Planning
 - d. None of the above
19. Which function involves determining the sequence of production activities and allocating resources to ensure that products are produced on time?
- a. Transportation Planning
 - b. Production Planning
 - c. Service Planning
 - d. Production Scheduling
20. Which function involves monitoring production processes, testing products, and implementing corrective actions when necessary?
- a. Process Control
 - b. Job Control
 - c. Quality Control
 - d. Noise Control

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(Descriptive)

Time : 2 Hr. 30 Mins.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

1. What are the key characteristics of modern production and operations functions, and how do they contribute to the overall success of an organization in today's business landscape? 10

2. Define production and operations management. Discuss the nature of production. Illustrate the concept of a typical production process with the help of a diagram. 4+4+2=10

3. What is a process? Briefly define Job-Shop production technique. Indicate and elucidate the various steps associated to process design. 2+2+6=10

4. Let us assume that a new medical facility, Health-care, is to be located by the organization where you're presently working. The location factors, factor rating and scores for two potential sites are shown in the following table. 10

| S/n | Location Factor | Weighted Factor Rating | Rating (1-5) | |
|-----|-----------------------------|------------------------|--------------|------------|
| | | | Location 1 | Location 2 |
| 1 | Facility utilization | 12 | 4 | 3 |
| 2 | Permission from authority | 20 | 3 | 5 |
| 3 | Availability of Skilled | 12 | 2 | 4 |
| 4 | Proximity to city | 18 | 2 | 5 |
| 5 | Total patient per month | 10 | 3 | 1 |
| 6 | Average time per emergency | 7 | 3 | 2 |
| 7 | Land and construction costs | 15 | 4 | 5 |
| 8 | Approach Road | 6 | 4 | 4 |

A team of experts rated the Locations from 1-5 on the basis of their desirability. Which is the best location based on factor rating method? Suggest.

5. The following table depicts a balanced transportation problem. Solve the problem using Northwest Corner Method to determine an optimal feasible solution. 10

| | | Destination | | | | Supply |
|--------|----|-------------|----|-----|-----|--------|
| | | D1 | D2 | D3 | D4 | |
| Source | O1 | 4 | 5 | 9 | 5 | 150 |
| | O2 | 2 | 5 | 5 | 3 | 90 |
| | O3 | 7 | 8 | 4 | 6 | 200 |
| | O4 | 6 | 8 | 6 | 4 | 60 |
| Demand | | 120 | 80 | 170 | 130 | 500 |

6. Write Short notes on : *(any two)* 5×2=10
- a) Steps of Lean Process
 - b) Just-in-Time and its Characteristics
 - c) Value Stream Mapping
 - d) Principles of Layout
 - e) Process Flow Diagram
7. Elaborate the key factors determining production planning and control. Substantiate your answer with suitable example. 10
8. *"The aim of inventory management & the principal goal involves having to balance the conflicting economics of not wanting to hold too much stock."* (Mpwanya, 2007, Abdulrasheed, et.al, 2011). Take cues from the statement and Discuss the importance of inventory management. 10

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