

**Code No: MB1924/19**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY-GURUJADA  
VIZIANAGARAM**

**MBA II Semester Regular & Supplementary Examinations, June-2025  
Operations Management**

**Time: 3 Hours**

**Max. Marks: 75**

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*Answer any FIVE Questions, One from Each Unit  
Question No.11 is Compulsory*

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**UNIT-I**

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|------|---|----|
| 1. A | Define Operations Management. Explain its nature and scope in modern organizations with suitable examples.                              | 6M |
| B    | Discuss the recent trends in Operations Management and explain how they are transforming organizational efficiency and competitiveness. | 6M |

**OR**

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|----|--|-----|
| 2. | Explain the different types of production systems and discuss their characteristics with relevant examples | 12M |
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**UNIT-II**

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|----|---|-----|
| 3. | Explain the stages involved in the product design process. How does each stage contribute to the development of a successful product? | 12M |
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**OR**

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| 4. | Describe the different types of facility layouts and discuss their characteristics with suitable examples. | 12M |
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**UNIT-III**

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| 5. | Elaborate the different methods of forecasting and their applications in operations management. | 12M |
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**OR**

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| 6. a | Define supply chain management. Discuss its key components and the role it plays in achieving operational efficiency. | 6M |
| b    | Discuss the types and techniques of Inventory Management.   | 6M |

**UNIT-IV**

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| 7. | Define Work Measurement. What are the different techniques used for Work Measurement? Explain with examples. | 12M |
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**OR**

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| 8. a | Define productivity in the context of a production system. Discuss the various factors that influence productivity and explain how they impact overall operational efficiency. | 6M |
| b    | Define job design and discuss the major approaches used in designing jobs.   | 6M |

**UNIT-V**

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| 9. | What is Acceptance Sampling in quality control? Explain the concept and significance of the Operating Characteristic Curve, including the terms AQL, LTPD, Alpha Risk, and Beta Risk with appropriate illustrations. | 12M |
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**OR**

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|-------|---|----|
| 10. a | Define quality. Discuss various dimensions of quality with examples.                            | 6M |
| b     | What are the ISO 9000 and ISO 14000 standards? Discuss their significance in quality assurance. | 6M |

## CASE STUDY

- 11 Sunrise Pharmaceuticals, a pharmaceutical manufacturing company, was facing a decline in market reputation due to frequent customer complaints about product quality, inconsistencies in batch formulation, and packaging defects. An internal audit revealed that the company lacked standardized procedures and relied heavily on manual inspections. 15M
- In response, the management decided to adopt a Total Quality Management (TQM) approach. They introduced quality circles to involve employees in identifying root causes of defects, conducted regular training sessions, and implemented Statistical Quality Control (SQC) techniques, including control charts to monitor processes. Additionally, the company sought ISO 9001:2015 certification, which required establishing a quality management system and continuous documentation of processes. Within a year:
- The number of product complaints dropped by 40%.
  - Employee engagement improved significantly.
  - Regulatory compliance improved, resulting in renewed approvals from global health authorities.

### Questions:

- a. How did the application of TQM principles and ISO standards contribute to quality improvement at Sunrise Pharmaceuticals?
- b. What is the importance of Statistical Quality Control (SQC) in pharmaceutical manufacturing, and how can control charts prevent defects?