



**Avinashilingam Institute for Home Science and Higher Education for Women**  
**Deemed to be University Estd.u/s 3 of UGC Act 1956, Category A by MHRD [now MoE]**  
**Re-accredited with an 'A++' Grade by NAAC. CGPA 3.65/4, Category I by UGC**  
**Coimbatore - 641 043, Tamil Nadu, India**

**Continuous Internal Assessment - II- April 2025**  
**II Semester**

**Class: I Year**  
**Branch: MBA/MBA IT and Systems Management**

**Time: 2 Hours**  
**Max. Marks:60**

**23MBAC10/24MBMC10 - Operations Management**

**Course Outcomes:**

1. Gain ability to recognize situations in a production system environment and familiarize on basic concepts in decision making on operations management strategy.
2. Understand and develop deep insight on location economics and layout planning.
3. Apply the relevance of production planning and control for different types of industry.
4. Provide knowledge in basic issues and methods involved in the production of goods and integrating various inventory plans to reduce the material related costs.
5. Understand the significance of quality and its interfaces with all the functional areas.

**PART A - 6 x 1 =6**

**Choose the Correct Answer**

1. Which type of production planning focuses on ensuring the availability of materials and resources for manufacturing processes?  
a) Job production    b) Intermittent production  
c) Continuous production    d) Process industry production **CO3K1**
2. What scheduling technique is typically used in job shop environments to prioritize and allocate resources to different jobs?  
a) FIFO (First In, First Out)    b) LIFO (Last In, First Out)  
c) Shortest Job Next (SJN)    d) Shortest Processing Time (SPT) **COK31**
3. Which of the following inventory control techniques classifies items based on their annual usage value?  
a) ABC analysis    b) HML analysis    c) VED analysis    d) FSN analysis **CO4K1**
4. Deming's way, Kaizen Technique, and JIT are associated with which quality management concept?  
a) Total Quality Control    b) Total Productive Maintenance  
c) Quality Circles    d) Six Sigma **CO4K1**
5. Which international quality standard emphasizes the importance of establishing, implementing, maintaining, and continually improving a quality management system?  
a) ISI    b) ISO 9000    c) Six Sigma    d) TPM **CO5K1**
6. Which type of maintenance aims to minimize equipment failures by regularly inspecting and servicing machinery?  
a) Planned maintenance    b) Preventive maintenance  
c) Breakdown maintenance    d) Predictive maintenance **CO5K1**

**PART B - 3 x 6 = 18**

**Answer ALL questions**

**Each answer should not exceed 400 words or two pages**

**7.a.** Explain the objectives of production planning and control in a manufacturing environment. **CO3K1**

**Or**

**7.b.** Discuss the role of scheduling in shop floor planning and control. Provide examples of scheduling techniques used in job shop, process-focused, and product-focused systems. **CO3K1**

**8.a.** Describe the key components of work design and explain the significance of work-study techniques such as method study, work measurement, and motion study. **CO3K1**

**Or**

**8.b.** Differentiate between planned, preventive, and breakdown maintenance. Discuss the importance of total productive maintenance (TPM) in modern manufacturing. **CO3K1**

**9.a.** Define inventory management and control. Discuss the various inventory control techniques used in manufacturing, highlighting the differences between the P System and the Q System. **CO3K1**

**Or**

**9.b.** Explain the concept of Total Quality Management (TQM). Discuss Deming's principles and the significance of ISO 9000 standards in ensuring product quality and customer satisfaction. **CO3K1**

**PART C - 3 x 12 = 36**

**Answer ALL questions**

**Each answer should not exceed 800 words or four pages**

**10.a** Discuss the functions of production planning and control in job production, intermittent production, continuous production, and process industry settings. **CO3K2**

**Or**

**10.b.** Explain the process of job scheduling in a manufacturing environment. Discuss the challenges associated with scheduling in job shop, process-focused, and product-focused systems, and suggest strategies to overcome these challenges. **CO3K2**

**11.a.** Analyze the impact of work design on employee productivity and organizational performance. Discuss the steps involved in conducting a time study and motion study to improve work processes. **CO4K4**

**Or**

**11.b.** Evaluate the role of maintenance management in ensuring the reliability and availability of manufacturing equipment. Discuss the principles of total productive maintenance (TPM) and its implementation in enhancing equipment effectiveness and reducing downtime. **CO4K4**

**12. Case Analysis (Compulsory Question):** **CO5K5**

A manufacturing company recently faced frequent breakdowns in its production machinery, resulting in delayed orders and increased maintenance costs. The company's maintenance team usually responded to issues only after a machine had completely failed, leading to significant downtime. The management is now considering implementing a preventive maintenance strategy to avoid unexpected failures.

**Questions:**

- a) What challenges might the company face in shifting from reactive to preventive maintenance?
- b) How can data analytics tools help predict potential equipment failures?
- c) Suggest effective strategies for scheduling maintenance without disrupting production.
- d) What role does employee training play in ensuring successful maintenance practices?

**Prepared by: Dr. D. Arthi**

**No: of copies required: 55**

