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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

MBA - IEV

SEM: II - THEORY EXAMINATION (2023 - 2024)

Subject: Production and Operations Management

Time: 3 Hours

Max. Marks: 100

General Instructions:

IMP: Verify that you have received the question paper with the correct course, code, branch etc.

1. This Question paper comprises of three Sections -A, B, & C. It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.
2. Maximum marks for each question are indicated on right -hand side of each question.
3. Illustrate your answers with neat sketches wherever necessary.
4. Assume suitable data if necessary.
5. Preferably, write the answers in sequential order.
6. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

SECTION A

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1. Attempt all parts:-

- 1-a. Select the correct option from the given option - which inventory management technique aims to maintain a continuous flow of materials to the production line while minimizing inventory levels? (CO1) 1
- (a) ABC analysis
 - (b) Economic Order Quantity (EOQ)
 - (c) Just-in-Time (JIT)
 - (d) Material Requirements Planning (MRP)
- 1-b. Select the appropriate option tool used for process analysis and improvement? (CO1) 1
- (a) Six Sigma
 - (b) Financial ratio analysis
 - (c) SWOT analysis
 - (d) Market segmentation
- 1-c. The key goal of World Class Manufacturing? Select the correct option (CO2) 1
- (a) Maximizing Inventory
 - (b) Reducing Lead Time
 - (c) Increasing Headcount
 - (d) Maximizing Downtime
- 1-d. The methodology is often associated with World Class Manufacturing? Select the correct option (CO2) 1
- (a) Six Sigma
 - (b) Just-In-Time
 - (c) Lean Manufacturing
 - (d) All of the above
- 1-e. Explain the main objective of Kaizen in WCM? (CO3) 1

- (a) Major Improvements
 (b) Large Investments
 (c) Continuous Small Improvements
 (d) Immediate Returns
- 1-f. The method in WCM focuses on error prevention? Select the correct option (CO3) 1
 (a) Kaizen
 (b) Kanban
 (c) Poka-Yoke
 (d) Hoshin Kanri
- 1-g. The primary goal of supply chain integration is to: (CO4) 1
 (a) Increase competition among suppliers
 (b) Create a seamless flow of products and information
 (c) Reduce product quality
 (d) Increase inventory levels
- 1-h. The term refers to the cost of carrying inventory over time? Select the correct option (CO4) 1
 (a) Ordering cost
 (b) Holding cost
 (c) Stock-out cost
 (d) Obsolescence cost
- 1-i. The primary objective of implementing cycle counting in inventory management? Select the correct option (CO5) 1
 (a) Economic Order Quantity (EOQ)
 (b) Just-In-Time (JIT)
 (c) ABC Analysis
 (d) Safety Stock Management
- 1-j. The primary disadvantage of the LIFO method for inventory valuation? Select the correct option (CO5) 1
 (a) $EOQ = \sqrt{(2 \times D \times S) / H}$
 (b) $EOQ = (D \times S) / H$
 (c) $EOQ = (2 \times D \times H) / S$
 (d) $EOQ = (H \times S) / D$
2. Attempt all parts:-
- 2.a. Explain the functions of production planning and control contribute to efficient operations? (CO1) 2
- 2.b. Explain the principles of demand management and its impact on production scheduling. (CO2) 2
- 2.c. Explain the principles of job rotation and its benefits in production management. (CO3) 2
- 2.d. Identify the primary functions of a warehouse. (CO4) 2
- 2.e. Evaluate the impact of technology upgrades on stores management processes and productivity. (CO5) 2

SECTION B

30

3. Answer any five of the following:-

3-a.	Discuss the importance of forecasting in operations management. How does accurate forecasting impact decision-making? (CO1)	6
3-b.	List the risks associated with outsourcing production, and how can they be mitigated? (CO1)	6
3-c.	Describe the role of product lifecycle management (PLM) in supporting World Class Manufacturing strategies. (CO2)	6
3-d.	Evaluate the role of organizational agility in responding to market dynamics within World Class Manufacturing environments.(CO2)	6
3.e.	Design a contingency plan for managing unexpected disruptions in the supply chain affecting stores operations.(CO3)	6
3.f.	Analyze the impact of lead time variability on stores management processes.(CO4)	6
3.g.	Apply FMEA to analyze potential risks in a banking process (CO5)	6

SECTION C

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4. Answer any one of the following:-

4-a.	Explain the significance of risk management in production and operations.(CO1)	10
4-b.	Assess the impact of digital technologies on production and operations management.(CO1)	10

5. Answer any one of the following:-

5-a.	Evaluate the role of supply chain optimization in attaining World Class Manufacturing excellence. (CO2)	10
5-b.	Provide examples of companies renowned for their successful adoption of World Class Manufacturing practices.(CO2)	10

6. Answer any one of the following:-

6-a.	Create a plan to manage reverse logistics for product returns and recycling.(CO3)	10
6-b.	Describe logistics and distribution management.(CO3)	10

7. Answer any one of the following:-

7-a.	Use the ABC analysis to categorize inventory items.(CO4)	10
7-b.	Implement the EOQ formula to determine optimal order quantity.(CO4)	10

8. Answer any one of the following:-

8-a.	Explain the concept of lead time in materials management (CO5)	10
8-b.	Discuss the key components of an effective materials planning and management system (CO5)	10