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Total Number of Pages: 02

Course: MBA
Sub_Code: MBPC3013

3rd Semester Regular Examination: 2025-26
SUBJECT: Supply Chain Management & Logistics
BRANCH(S): MBA, FM&HRM, BA, FM, GM, HCHM, HRM, MM
Time: 3 Hours
Max Marks: 100
Q.Code: U390

Answer Question No.1 (Part-I) which is compulsory, any eight from Part-II and any two from Part-III.

The figures in the right-hand margin indicate marks.

Part-I

Q1 Answer the following questions:

(2 x 10)

- What is meant by the term exchange points?
- What do you mean by order fill rate?
- Is it possible to achieve zero inventories? Why or why not?
- What is the difference between supply chain and value chain?
- How supply chain performance is measured?
- What is the need for integrated supply chain?
- How is strategic fit achieved?
- Name the value addition types in supply chain.
- Differentiate between cycle inventory and safety inventory.
- What are the causes of bullwhip effect?

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)

(6 x 8)

- State the various decision phases involved in Supply Chain.
- What do you mean by risk pooling? Give some examples.
- What is bull whip effect? How to minimize the bullwhip effect?
- What is pricing in supply chain? Why is pricing one of the important factors in SCM?
- What is 3PL? Explain types of 3PL.
- Why is trust so important in effective SCM?
- How does outsourcing increase or decrease the risk of supply chain disruptions?
- Briefly explain Hub and Spoke Model.
- What are challenges faced by Reverse logistics?
- Why have 3PLs become more important in recent years?
- Why is risk management becoming more important in today's supply chains?
- Discuss the role of technology in supply chain information. What are its benefits and its obstacles?

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

- Q3** What are the factors involved in network design? Explain. (16)
- Q4** Why is CRM important in the effectiveness of a supply chain? Identify a company that you think has a good CRM focus. What reasons would you give for identifying this company (16)
- Q5** a) What is vendor relationship Management? Explain its benefits. (8)
b) Explain its advantages and disadvantages of vendor managed Inventory. (8)
- Q6** a) Briefly explain different types of warehouse operations. (8)
b) In your opinion, which company has done a good job of managing their supply chain? Why? (8)

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Total Number of Pages: 04

Course: MBA
Sub_Code: MBPC3014

3rd Semester Regular Examination: 2025-26
SUBJECT: Project Management
BRANCH(S): MBA, FM&HRM, BA, FM, GM, HCHM, HRM, MM
Time: 3 Hours
Max Marks: 100
Q.Code: U397

Answer Q1 (Part-I) which is compulsory, any eight from Part-II, and any two from Part-III.
The figures in the right-hand margin indicate marks.

Part-I

Q1 Answer the following questions:

(2 x 10)

- Define a project. How is it different from routine operations?
- What is a Project Life Cycle? Name its major phases.
- What is the purpose of a Work Breakdown Structure (WBS)?
- List any two components of a project feasibility study.
- What is meant by project appraisal?
- State any two differences between PERT and CPM.
- What are Key Performance Indicators (KPIs) in project management?
- Define project risk. Mention any two common risk categories.
- What is resource levelling in project scheduling? Why is it needed?
- Explain the concept of Agile Project Management. How it differs from traditional project management.

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)

(6 x 8)

- A company is evaluating two project proposals: Project A (₹20 lakh investment, expected return ₹30 lakh in 4 years) and Project B (₹25 lakh investment, return ₹40 lakh in 5 years). Compute the Payback Period for both projects and recommend which project should be selected.
- Discuss how MIS and KPI design can be integrated into the early stages of project planning to prevent failure during execution. Illustrate with an example of a construction or IT project where improper KPI selection led to poor decision-making, and propose a better KPI framework.
- A project has the following cost estimates:
Material Cost = ₹6,00,000
Labour Cost = ₹3,50,000
Overheads = 25 % of direct cost
Compute:
 - Total project cost
 - If the project earns ₹15,00,000 revenue, calculate profit and profit margin.
- A large-scale renewable energy project passes the financial feasibility test but has potential social and environmental concerns. Explain how Social Cost-Benefit Analysis (SCBA) can alter project selection decisions. Discuss at least three indicators within SCBA and illustrate how they may change project viability in real-world conditions.

- e) Construct a project network for the activities below and find the Critical Path and total project duration:

Activity	Predecessor	Duration
A	-	4
B	A	6
C	A	5
D	B, C	7
E	C	4
F	D, E	3

- f) A project has the following PERT activity time estimates:

Activity	Optimistic (O) duration	Most Likely (M) duration	Pessimistic (P) duration
A	3	6	9
B	4	7	16
C	5	8	17

Calculate for each activity:

- Expected Time (T_e)
 - Variance
 - Which activity is riskier?
- g) A startup wants to implement three simultaneous innovation projects but has limited managerial bandwidth. Explain how project organizational structure choices (functional, matrix, projectized) influence communication, conflict resolution, and speed of execution. Recommend the most suitable structure for an innovation-driven startup and justify your choice with practical reasoning.
- h) A software development team wants to adopt Agile Scrum to speed up delivery, but team members are used to traditional sequential (Waterfall) methods. Explain the key differences between Waterfall and Scrum in terms of planning, execution, and customer involvement. Then describe how adopting Scrum ceremonies (Sprint Planning, Daily Scrum, Reviews, Retrospectives) can help the team improve collaboration and reduce delays.
- i) A project has the following resource requirements:

Activity	Duration	Resource Required	Predecessor
A	4 days	3 workers	-
B	5 days	4 workers	A
C	6 days	5 workers	A
D	4 days	6 workers	B, C

If only **7 workers** are available at any time, perform **resource leveling** and determine the minimum project duration after leveling.

- j) A project is planned to be completed in 24 weeks. After 12 weeks, the project manager finds:

Planned Value (PV) = ₹40 lakh

Earned Value (EV) = ₹30 lakh

Actual Cost (AC) = ₹45 lakh

Compute:

- CPI, SPI
- Estimate at Completion (EAC)
- Is the project performing well? Give an interpretation.

- k) A public-sector infrastructure project faces chronic communication delays among multiple vendors and government agencies. Propose a project communication plan that integrates WBS elements, stakeholder mapping, and information flow mechanisms. Explain how this plan reduces ambiguity and enhances coordination.
- l) Explain how Project Audits and Lessons Learned Reviews contribute to long-term organizational maturity. Use a scenario (e.g., a failed IT modernization project or a delayed public works project) to demonstrate how systematic closure processes could prevent recurrence of similar failures.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

- Q3** A manufacturing company plans to launch a new eco-friendly product line and is evaluating five potential project ideas. The screening criteria include Strategic Fit (weight 0.30), Cost Efficiency (0.25), Market Potential (0.20), Technology Feasibility (0.15), and Risk Level (0.10). The scores (out of 10) for each project are given below: **(16)**

Project	Strategic Fit	Cost Efficiency	Market Potential	Tech. Feasibility	Risk Level
P1	8	6	9	7	3
P2	6	9	5	8	6
P3	9	8	7	6	4
P4	7	7	9	9	5
P5	5	6	6	5	2

Tasks:

- a) Use a **weighted scoring model** to evaluate and rank the projects.
 - b) Identify which project should be selected and justify the decision.
 - c) Explain how organizational culture and structure may influence successful project implementation of your recommended project.
 - d) Draw a **Work Breakdown Structure (WBS)** for the new product development project up to Level-3.
- Q4** A complex engineering project suffers from frequent delays due to poor scheduling and lack of team coordination. **(5+5+6)**
- a) Explain how network techniques such as PERT and CPM can be used to improve scheduling accuracy.
 - b) Discuss how Agile practices or daily stand-up meetings can enhance coordination even in a traditionally planned project.
 - c) Describe three project control tools (e.g., Gantt charts, Earned Value Management, Resource Histograms) and explain how each can be applied to monitor and correct delays.
- Q5** A manufacturing company is considering a major expansion project that involves new machinery, training programs, and a redesign of workflows. **(6+5+5)**
- a) Explain the key components of a comprehensive project feasibility study (Technical, Financial, Economic, Commercial, Managerial, and Social).
 - b) Discuss how each component would apply specifically to this expansion project.
 - c) Propose a risk analysis framework the company should use during appraisal, explaining at least three major risks and methods to evaluate them.

Q6

A complex project consists of the following activities:

(5+5+6)

Activity	Predecessor	Duration (days)	Normal Cost (₹ lakh)	Crash Cost (₹ lakh)	Crash Duration
A	-	6	4.0	5.5	4
B	A	8	6.0	7.2	6
C	A	7	5.0	6.8	5
D	B, C	10	8.0	10.0	7
E	C	9	7.0	9.5	6
F	D, E	5	4.0	5.0	3

The project deadline is **28 days**, but the normal duration is longer.

a) **Tasks:**

Construct the project network and determine:

- Critical path
- Normal project duration

b) Identify the activities to crash and compute the **minimum cost to meet the 28-day deadline**, showing calculations step-by-step.

c) After project execution begins, the following Earned Value data is available at mid-point:

- PV = ₹22 lakh
- EV = ₹18 lakh
- AC = ₹25 lakh

Compute:

- CPI, SPI, EAC using CPI-based forecasting
- Interpret whether the project is in trouble and what corrective actions should be taken.

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Course: MBA
Sub Code: MBPC3015

3rd Semester Regular Examination: 2025-26
SUBJECT: OPERATIONS STRATEGY
BRANCH(S): MBA, FM&HRM, BA, FM, GM, HCHM, HRM, MM
Time: 3 Hours
Max Marks: 100
Q.Code: U425

Answer Question No.1 (Part-I) which is compulsory, any eight from Part-II and any two from Part-III.

The figures in the right-hand margin indicate marks.

Part-I

Q1 Answer the following questions:

(2 x 10)

- What does MRP stand for in operations strategy?
- What is strategic consistency?
- What is forward integration?
- What is manufacturing architecture?
- What is service strategy?
- What do you mean by operations discipline?
- What is flexible capacity?
- What is cost leadership in operations strategy?
- What is process mapping?
- What is capacity cushion?

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)

(6 x 8)

- What are the various steps involved in formulating an operation strategy?
- Explain the strategies housing companies use to reduce construction cycle time.
- What is benchmarking and how it is used in operations strategy?
- What is service development? Explain its various steps.
- Mention six differences between order qualifiers and order winners.
- What is operations leverage? Discuss its role in capacity planning.
- What are the various models used by a company to gain competitive advantages?
- How do companies reposition themselves in the value chain during innovation and digital transformation?
- What is the role of capacity planning in service operations?
- What is operational performance evaluation? Explain the various tools used in it.
- What is the role of lead time in operations strategy? Explain in detail.
- What is strategic alignment in operations strategy?

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

- Q3** What do you mean by operations strategy? Discuss the relationship between corporate strategy and operational strategy with suitable example. **(16)**
- Q4** What are the various stages in the formulation, substitution, and implementation of operations strategy? How can they be integrated? **(16)**
- Q5** Discuss the various capacity expansion strategies. Explain the relationship between demand forecasting and capacity expansion decisions. **(16)**
- Q6** Explain the concept of supply network strategy. What are the various components and significance in achieving the competitive advantages? **(16)**

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Course: MBA
Sub_Code: MBPC3016

3rd Semester Regular Examination: 2025-26
SUBJECT: Total Quality Management
BRANCH(S): MBA, FM&HRM, BA, FM, GM, HCHM, HRM, MM
Time: 3 Hours
Max Marks: 100
Q.Code: U440

Answer Q1 (Part-I) which is compulsory, any eight from Part-II, and any two from Part-III.
The figures in the right-hand margin indicate marks.

Part-I

- Q1 Answer the following questions:** (2 x 10)
- a) Define Quality. What are the key aspects of quality?
 - b) Differentiate between Quality Control and Quality Assurance.
 - c) What is Continuous Process Improvement? How is it achieved?
 - d) What is the role of Quality Assurance in TQM?
 - e) What is internal failure cost?
 - f) What is statistical process control?
 - g) What is process capability?
 - h) What is Six Sigma?
 - i) What is the difference between product quality and process quality standards?
 - j) What are the requirements of ISO 9001?

Part-II

- Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve)** (6 x 8)
- a) Explain the concept of Quality Management and its importance in organizations.
 - b) Describe Deming's 14 Points for Quality Management. How can they be implemented in an organization?
 - c) Discuss the relationship between Quality, Price, and Value. How do organizations balance these factors to achieve customer satisfaction?
 - d) Explain the concept of Total Quality Management (TQM). What are its core concepts, and how can organizations implement TQM?
 - e) Discuss the internal and external failure costs and their impact on organizations.
 - f) Describe the X-bar and R charts and their use in monitoring process variation.
 - g) Discuss the concept of Kaizen and its role in continuous improvement.
 - h) Explain the OC curve and its use in acceptance sampling.
 - i) Describe the principles of Total Productive Maintenance (TPM) and its benefits.
 - j) Discuss the importance of Quality Benchmarking in process improvement.

- k) Describe the steps involved in Failure Mode and Effect Analysis (FMEA).
- l) Describe the benefits of ISO registration and its impact on organizations.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

- Q3** Why is customer orientation important in Total Quality Management (TQM)? How can organizations ensure that they meet customer requirements and expectations? (16)
- Q4** Explain the concept of quality circles and their role in quality improvement. Discuss the conditions for success of TQM in organizations. (16)
- Q5** Discuss the concept of Six Sigma and its application in process improvement. Explain the DMAIC methodology and its tools. (16)
- Q6** What is the role of top management in implementing Total Quality Management (TQM)? What are the key responsibilities of top management in achieving quality excellence? (16)