



M.E DEGREE EXAMINATIONS: JUNE 2017

(Regulation 2015)

Second Semester

INDUSTRIAL ENGINEERING

P15IET201: Supply Chain Management

COURSE OUTCOMES

- CO1:** Define logistics and identify the factors affecting logistics and basic tasks of SC.
CO2: Outline PLC grid and its importance and describe the functional roles in SC.
CO3: Describe economies of scale in SC and compute optimal level of product availability.
CO4: Identify factors affecting transportation decisions and discuss transportation models.
CO5: Express factors influencing SC coordination and indicate the impact of e business.

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Assertion (A): Total supply chain profitability improves if all stages of the chain take actions that together and aid Supply chain coordination. CO5 [K₃]
Reason (R): Supply chain coordination becomes vital because information moving between stages gets delayed or distorted or each stage tries to maximize its own profits.
a) both A and R are individually true and R is the correct explanation of A b) both A and R are individually true but R is not the correct explanation of A
c) A is true but R is false d) A is false but R is true
2. The supply chain approach which calls for radical restructuring of processes to eliminate waste and improving quality in supply chain is CO2 [K₁]
a) Procurement approach b) Logistics approach
c) Business process reengineering approach d) Information approach
3. Supply chain profitability is also called as supply chain _____ CO2 [K₂]
a) surplus b) deficit
c) balance d) equilibrium

4. Matching type item with multiple choice code

CO3 [K₃]

List I	List II
A. Inception	i. Niche competition
B. Growth	ii. Product rejuvenation
C. Maturity	iii. Startup mode
D. Decline	iv. Market expansion

- | | A | B | C | D |
|----|-----|-----|-----|----|
| a) | i | ii | iii | iv |
| b) | ii | iii | i | iv |
| c) | iv | iii | i | ii |
| d) | iii | iv | i | ii |

5. Assertion (A): Product availability reflects a firm's ability to fulfill customer order from existing inventory thus leading to customer satisfaction

CO3 [K₃]

Reason (R): In cases of stock out, a customer arrives for a product but is deprived leading to dissatisfaction

- a) both A and R are individually true and R is the correct explanation of A b) both A and R are individually true but R is not the correct explanation of A
- c) A is true but R is false d) A is false but R is true

6. Improper forecasting can be categorized as _____ obstacle

CO2 [K₂]

- a) Information processing b) Incentive
- c) Behavioral d) Operational

7. Inventory holding cost is the sum of the following major components

CO3 [K₃]

1. Cost of capital
2. Obsolence cost
3. Handling cost
4. Occupancy cost

Which of the following statements are correct?

- a) 1 b) 2,3
- c) 1,2,3,4 d) 1,4

8. Transporting crude petroleum is a fit example of _____ transportation.

CO4 [K₁]

- a) road b) waterway
- c) rail d) pipeline

9. Marginal unit quantity discount models are also called as CO3 [K₂]
- a) Single block tariffs b) Multi block tariffs
- c) Leveled tariffs d) Non blocked tariffs

10. Consider the following phases in a supply chain. CO5 [K₂]
1. Supply chain planning
 2. Supply chain strategy
 3. Supply chain operation

The correct sequence of decision making in a supply chain is

- a) 1-3-2 b) 2-1-3
- c) 1-2-3 d) 3-2-1

PART B (10 x 2 = 20 Marks)

11. Define logistics. CO1 [K₁]
12. Define core skills. CO1 [K₁]
13. Recall economies of scope. CO2 [K₁]
14. What is CPC? CO2 [K₁]
15. Extend examples of continuously stocked items CO3 [K₂]
16. Relate lead time and safety stock CO3 [K₃]
17. Translate the role cross docking? CO4 [K₂]
18. List transportation scheduling techniques. CO4 [K₁]
19. Summarize concepts of B2B and B2C. CO5 [K₂]
20. Outline successful of e-business firms. CO5 [K₂]

PART C (10 x 5 = 50 Marks)

21. Organize the factors affecting logistics. CO1 [K₃]
22. Interpret a supply process. Explain the various factors affecting supply process. CO1 [K₂]
23. Experiment with the role of supply chain in new product introduction. CO2 [K₃]
24. Categorize the different stages in the manufacturing strategy. CO2 [K₄]
25. Rephrase the role of economies of scale to exploit quantity discounts. CO3 [K₂]
26. Dissect the managerial levers to improve supply chain profitability CO3 [K₄]
27. Spell the role of distribution management in modern manufacturing. CO4 [K₁]
28. Label factors affecting the shippers' transportation decisions. CO4 [K₁]
29. Survey the steps involved in designing a relationship with cooperation and trust. CO5 [K₄]
30. Identify the different obstacles to Supply chain coordination. CO5 [K₃]

Answer any TWO Questions

PART D (2 x 10 = 20 Marks)

31. Define supply chain. Analyze the various approaches towards supply chain. CO1 [K₁]
32. Classify and explain the functional roles in a supply chain. CO2 [K₂]
33. Model the different modes of transportation based on their performance characteristics with suitable exemplars. CO4 [K₃]
