



B.E/B.TECH DEGREE EXAMINATIONS: NOV/DEC 2023

(Regulation 2018)

Seventh Semester

AERONAUTICAL ENGINEERING

U18AET7002: Aviation Logistics and Supply Chain Management

COURSE OUTCOMES

CO1: Describe the role of logistics in a market-oriented society.

CO2: Explain the objectives, types, drivers, and other important factors of supply chain management.

CO3: Discuss the types of airport and demonstrate supply chain management and its relevance to today's global business decision making.

CO4: Describe the role of cargo handling agents and cold chain business.

CO5: Recognize the role of cargo security, risks involved, trends and technology in aviation logistics.

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

(Answer not more than 40 words)

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|---|-----|-------------------|
| 1. What is meant by 'black box' in the spectrum of supplier integration? | CO1 | [K ₂] |
| 2. Why is the third party logistics growing so rapidly? | CO1 | [K ₂] |
| 3. What is meant by 'distribution' in the supply chain? Mention its role. | CO2 | [K ₂] |
| 4. List down any four supply chain performance measures. | CO2 | [K ₁] |
| 5. Enumerate the various types of airports utilized for aviation logistics. | CO3 | [K ₁] |
| 6. Name two multinational corporation (MNC) that exemplifies globalization. | CO3 | [K ₂] |
| 7. List down any two factors influencing the major changes in air freight. | CO4 | [K ₁] |
| 8. Draw the logistics pipeline for air freight shipment in logistics. | CO4 | [K ₂] |
| 9. What are the main cargo security dangers hidden in aviation logistics? | CO5 | [K ₁] |
| 10. What is the primary goal of cargo security in the logistics industry? | CO5 | [K ₁] |

Answer any FIVE Questions:-

PART B (5 x 16 = 80 Marks)

(Answer not more than 400 words)

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|--|---|-----|-------------------|
| 11. a) How to determine an appropriate strategic alliance for a firm? | 8 | CO1 | [K ₃] |
| b) Briefly explain the various steps involved in implementing Retailer-Supplier Partnerships (RSPs). Also mention its merits and demerits. | 8 | CO1 | [K ₃] |

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|-----|----|---|---|-----|-------------------|
| 12. | a) | With the aid of a block diagram, explain the four phases of framework for supply chain network design decisions. | 8 | CO2 | [K ₂] |
| | b) | Discuss the importance of expanding the scope of strategic fit across the supply chain. | 8 | CO2 | [K ₂] |
| 13. | a) | Explain in detail, the technological and economic factors that constantly challenge the business of air cargo. | 8 | CO3 | [K ₂] |
| | b) | Describe the concept of integrators in aviation logistics and explain their role in the same. | 8 | CO3 | [K ₂] |
| 14. | a) | Enumerate the products that are being transported in cool chain and explain in detail about the cool chain business. | 8 | CO4 | [K ₂] |
| | b) | Briefly explain the role of the General Handling Agent (GHA) in aviation logistics. | 8 | CO4 | [K ₂] |
| 15. | a) | Discuss the environmental challenges associated with air logistics. What strategies are being adopted by the industry to mitigate them? | 8 | CO5 | [K ₂] |
| | b) | List and explain the functions of various regulatory bodies in international aviation. | 8 | CO5 | [K ₂] |
| 16. | a) | “Design for logistics concepts controls the logistics cost and make the supply chain more efficient” Justify. | 8 | CO1 | [K ₃] |
| | b) | Briefly discuss about the various factors influencing the design of distribution network. | 8 | CO2 | [K ₃] |
