



**B.E DEGREE EXAMINATIONS: NOV/DEC 2022**

(Regulation 2018)

Seventh Semester

**AERONAUTICAL ENGINEERING**

U18AET7002: AVIATION LOGISTICS AND SUPPLY CHAIN MANAGEMENT

**COURSE OUTCOMES**

|             |  |
|-------------|--|
| <b>CO1:</b> | Describe the role of logistics in a market-oriented society.   |
| <b>CO2:</b> | Explain the objectives, types, drivers, and other important factors of supply chain management.                                    |
| <b>CO3:</b> | Discuss the types of airport and demonstrate supply chain management and its relevance to today's global business decision making. |
| <b>CO4:</b> | Describe the role of cargo handling agents and cold chain business.  |
| <b>CO5:</b> | 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)**

|     |   |     |                   |
|-----|---|-----|-------------------|
| 1.  | What are the important activities or elements in logistics?           | CO1 | [K <sub>1</sub> ] |
| 2.  | Why is logistics so important for successful supply chain management? | CO1 | [K <sub>1</sub> ] |
| 3.  | What are the objectives of supply chain management?                   | CO2 | [K <sub>1</sub> ] |
| 4.  | List the three key supply chain decision phases.                      | CO2 | [K <sub>1</sub> ] |
| 5.  | Define combination carriers and list few examples.                    | CO3 | [K <sub>1</sub> ] |
| 6.  | What is an integrator in aviation logistics?                          | CO3 | [K <sub>1</sub> ] |
| 7.  | Enumerate the roles of general handling agent.                        | CO4 | [K <sub>1</sub> ] |
| 8.  | How the cool chain business is broadly classified?                    | CO4 | [K <sub>1</sub> ] |
| 9.  | What are the two entities that dominate E-commerce?                   | CO5 | [K <sub>1</sub> ] |
| 10. | Enumerate the emissions caused by the subsonic aircraft.              | CO5 | [K <sub>1</sub> ] |

**Answer any FIVE Questions: -**

**PART B (5 x 16 = 80 Marks)**  
**(Answer not more than 400 words)**

|     |    |   |   |     |                   |
|-----|----|---|---|-----|-------------------|
| 11. | a) | How can design for logistics concepts be used to control logistics cost and make the supply chain more efficient? | 8 | CO1 | [K <sub>3</sub> ] |
|-----|----|---|---|-----|-------------------|

|     |    |   |   |     |                   |
|-----|----|---|---|-----|-------------------|
|     | b) | What are the most common logistics management software applications and why are they beneficial to users?   | 8 | CO1 | [K <sub>2</sub> ] |
|     |    |   |   |     |                   |
| 12. | a) | Explain in detail the role of the major drivers of supply chain performance in the competitive strategy.  | 8 | CO2 | [K <sub>2</sub> ] |
|     | b) | Describe how a company achieves strategic fit between its supply chain strategy and competitive strategy.   | 8 | CO2 | [K <sub>2</sub> ] |
|     |    |   |   |     |                   |
| 13. | a) | Explain briefly about the various types of airports utilized for aviation logistics.  | 8 | CO3 | [K <sub>2</sub> ] |
|     | b) | How can the airports play an important role in maintaining the global supply chain?   | 8 | CO3 | [K <sub>2</sub> ] |
|     |    |   |   |     |                   |
| 14. | a) | List and explain the factors behind the majority of changes happened in air freight.  | 8 | CO4 | [K <sub>5</sub> ] |
|     | b) | Discuss in detail about the logistics pipeline for air freight shipment.  | 8 | CO4 | [K <sub>5</sub> ] |
|     |    |   |   |     |                   |
| 15. | a) | Enumerate the main cargo security dangers hidden in aviation logistics and explain each of them in detail.  | 8 | CO5 | [K <sub>4</sub> ] |
|     | b) | Discuss in detail about the issues that needs to be addressed to face the consequences in airlines, airports and handling companies.                            | 8 | CO5 | [K <sub>4</sub> ] |
|     |    |   |   |     |                   |
| 16. | a) | What are the various factors to be considered before establishing a Third Party Logistics agreement? Explain in detail the issues and requirements of the same. | 8 | CO1 | [K <sub>5</sub> ] |
|     | b) | List and explain the various factors to be considered for successful CRM.   | 8 | CO2 | [K <sub>5</sub> ] |

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