



## Even Semester End Term Examination, May / June 2026

**Date: 27/05/2026**

**Time: 09.30 AM - 12.30 PM**

**Course Code: AVM2002**

**Course Name: ATC and Airport Operations**

**Semester: Second Semester**

**Max. Marks: 100**

**Weightage: 50%**

| CO - Levels | CO1 | CO2 | CO3 | CO4 | CO5 |
|-------------|-----|-----|-----|-----|-----|
| Marks       | 36  | 36  | 36  | 36  | 36  |

### Part A: Answer Following Questions. 20 M

| Qn.No | Questions                                              | M | CO  | BT  |
|-------|--------------------------------------------------------|---|-----|-----|
| 1     | What is flight clearance?                              | 2 | CO1 | BT1 |
| 2     | What is controlled airspace?                           | 2 | CO1 | BT1 |
| 3     | Explain CPDLC?                                         | 2 | CO2 | BT1 |
| 4     | Define ILS?                                            | 2 | CO2 | BT1 |
| 5     | Explain the concept of passenger processing.           | 2 | CO3 | BT1 |
| 6     | What is FOD?                                           | 2 | CO3 | BT1 |
| 7     | Identify the concept of CCTV surveillance in airports. | 2 | CO4 | BT1 |
| 8     | Explain Emergency Response Planning (ERP)?             | 2 | CO4 | BT1 |
| 9     | What are Capacity Constraints in airports?             | 2 | CO5 | BT1 |
| 10    | Recall the concept of Automation in airports?          | 2 | CO5 | BT1 |

### Part B: Answer Any 1 Following Questions. 16 M

| Qn.No | Questions                                                                                                                    | M  | CO  | BT  |
|-------|------------------------------------------------------------------------------------------------------------------------------|----|-----|-----|
| 11.a  | Explain the communication protocols used in ATC.                                                                             | 6  | CO1 | BT2 |
| 11.b  | Utilize ATC services to explain how safety and efficiency are maintained in air traffic operations.                          | 10 | CO1 | BT3 |
| 12.a  | Explain aircraft separation standards and procedures.                                                                        | 6  | CO1 | BT2 |
| 12.b  | Distinguish between various aircraft separation methods used by ATC and assess their suitability under different traffic and | 10 | CO1 | BT3 |

|                           |  |  |  |
|---------------------------|--|--|--|
| environmental conditions. |  |  |  |
|---------------------------|--|--|--|

**Part C: Answer Any 1 Following Questions. 16 M**

| Qn.No | Questions                                                                                                 | M  | CO  | BT  |
|-------|-----------------------------------------------------------------------------------------------------------|----|-----|-----|
| 13.a  | Illustrate and examine the components and roles of different ground-based navigation systems.             | 6  | CO2 | BT2 |
| 13.b  | Examine emerging technologies and determine their impact on improving ATC operations.                     | 10 | CO2 | BT3 |
| 14.a  | Explain emerging technologies in ATM.                                                                     | 6  | CO2 | BT2 |
| 14.b  | Break down the ILS into its key components and interpret how each contributes to safe landing operations. | 10 | CO2 | BT3 |

**Part D: Answer Any 1 Following Questions. 16 M**

| Qn.No | Questions                                                                                                           | M  | CO  | BT  |
|-------|---------------------------------------------------------------------------------------------------------------------|----|-----|-----|
| 15.a  | Explain ground handling operations.                                                                                 | 6  | CO3 | BT2 |
| 15.b  | Classify different types of airport layouts based on their design and operational characteristics.                  | 10 | CO3 | BT3 |
| 16.a  | Demonstrate the functioning of the baggage handling system in a practical context.                                  | 6  | CO3 | BT2 |
| 16.b  | Examine the components of ground handling and evaluate their significance in ensuring efficient airport operations. | 10 | CO3 | BT3 |

**Part E: Answer Any 1 Following Questions. 16 M**

| Qn.No | Questions                                                                                                 | M  | CO  | BT  |
|-------|-----------------------------------------------------------------------------------------------------------|----|-----|-----|
| 17.a  | Explain the layers of airport security.                                                                   | 6  | CO4 | BT2 |
| 17.b  | Examine the components of airport security screening and evaluate their effectiveness in ensuring safety. | 10 | CO4 | BT3 |
| 18.a  | Explain Fire Safety in airports.                                                                          | 6  | CO4 | BT2 |
| 18.b  | Execute compliance with international aviation regulations in operational scenarios.                      | 10 | CO4 | BT3 |

**Part F: Answer Any 1 Following Questions. 16 M**

| Qn.No | Questions                                                                                        | M  | CO  | BT  |
|-------|--------------------------------------------------------------------------------------------------|----|-----|-----|
| 19.a  | Explain runway congestion and its management.                                                    | 6  | CO5 | BT2 |
| 19.b  | Develop response strategies for emergency and weather-related disruptions in airport operations. | 10 | CO5 | BT3 |

|      |                                                                                                                 |    |     |     |
|------|-----------------------------------------------------------------------------------------------------------------|----|-----|-----|
| 20.a | Explain safety and security threats in airports.                                                                | 6  | CO5 | BT2 |
| 20.b | Analyze current trends and future perspectives in airport operations to determine their strategic implications. | 10 | CO5 | BT3 |