

**DIRECTORATE OF DISTANCE EDUCATION
NALSAR UNIVERSITY OF LAW, HYDERABAD**

M.A. (AVIATION LAW & AIR TRANSPORT MANAGEMENT)

Academic Year: 2025-2026

**Third Semester Repeat Examination – Online Proctored Examination
(December 2025)**

2.3.8. Air Space & Air Traffic Management

Duration of the Examination: 2 ½ hours

Total Marks : 70 marks

INSTRUCTIONS TO CANDIDATES

- a) Read the instructions carefully and adhere to the same.
- b) Please mention your Name, DDE ID No., date of the exam, name of the programme, name of the subject, total number of pages on the first page and write the page numbers in sequence on each sheet before upload.
- c) The questions to be interpreted as given and no clarification can be sought.
- d) Clearly indicate the question numbers while answering them. Answers without question numbers / wrong question numbers will not be evaluated.
- e) Write the answers clearly and neatly. Answers in illegible handwriting will not be taken into consideration.
- f) Candidates need to check the scanned and pdf converted file before uploading, whether all pages are scanned properly and the same is in sequence and clearly visible.
- g) Candidates are prohibited to use phones or any other electronic devices, books, material etc. during the Examination.
- h) Copying from any source including from other students is strictly prohibited. Plagiarism is considered as a serious academic mis-conduct and the University will take action as it deems fit.

Section – A

Answer FIVE questions out of SEVEN questions and each question carries 10 marks. (5 x 10 marks = 50 marks)

1. Global warming has led to increasingly unpredictable weather patterns, posing new challenges for Air Traffic Control (ATC). As an aviation safety analyst, propose a set of adaptive strategies ATC units can implement to manage collision risks and maintain operational efficiency during volatile weather conditions.

2. You are part of an aviation systems audit team assessing communication and surveillance protocols at a busy international airport. Explain the key technologies used to ensure seamless coordination between pilots and air traffic controllers (ATC).
3. Explain how low-cost airlines structure their operations to deliver value to passengers. Discuss key features such as cost-efficiency, route selection, and simplified service models, and evaluate their impact on passenger accessibility, market competition, and the broader aviation ecosystem.
4. You have recently been appointed as a senior manager at a busy international airport. Due to the holiday season approaching, most airlines have increased flights on their busy routes. By applying your understanding of ATC protocols, outline how collision avoidance is ensured in conditions of limited visibility and high traffic density. Your answer should include procedural separation, use of radar and ADS-B, and coordination across control sectors.
5. You are part of an aviation regulatory task force. Apply your understanding of ICAO airspace classifications (Classes A to G) to propose a restructured airspace model that ensures safety, efficiency, and equitable access for all users. Justify your propositions with suitable examples.
6. You are tasked with optimising airspace usage in a region experiencing frequent military exercises, weather issues and rising commercial traffic. How can Temporary Reserved Areas (TRAs) be effectively implemented in such cases to balance national security needs, travel safety, and civil aviation efficiency? Support your answer with examples of TRA usage.
7. What do you mean by high-density and low-density traffic regions in the case of an airline? As an aviation operations strategist, propose a multi-pronged approach to managing airspace in high-density traffic regions such as Delhi or Mumbai. Also, propose an approach to managing airspace in low-density traffic regions, providing suitable examples.

Section – B

Answer FOUR questions out of SIX questions and each question carries 05 marks. (4 x 5 marks = 20 marks)

8. Write a short note on the role of technologies such as ADS-B and radar systems in modern air traffic management.
9. Write a short note on Air Space and Air Traffic Management. Briefly explain how airspace is structured and the role of air traffic management in ensuring safe and efficient aircraft operations.

- 10.** Write a short note on the integration of Unmanned Aerial Vehicles (UAVs) into controlled airspace. Highlight key challenges.
- 11.** Write a short note on the International Civil Aviation Organisation (ICAO) regarding air traffic management.
- 12.** Write a short note on ICAO's air traffic management provisions and their role in enhancing global aviation safety.
- 13.** Write a short note on strategies that airlines and air traffic management authorities can adopt to reduce delays and congestion during peak travel seasons.