

R09

Code No: 58090

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**B. Tech IV Year II Semester Examinations, May - 2019****AIRPORT PLANNING AND OPERATIONS****(Aeronautical Engineering)****Time: 3 hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A**(25 Marks)**

- 1.a) Define general aviation (GA) airports. [2]
- b) What are the principal duties of a typical airport manager at a medium size commercial airport? [3]
- c) Define the planning horizon. [2]
- d) Why analyzing historical wind data for the airfield? [3]
- e) What is common user terminal equipment? [2]
- f) Write about fault servicing. [3]
- g) How to calculate aircraft weight and balance. [2]
- h) What are the main activities associated with this procedure of flight dispatch? [3]
- i) What are visual flight rules? [2]
- j) Write about separation minima criteria used by ATC. [3]

PART - B**(50 Marks)**

- 2.a) Briefly write about the ownership structures of airports.
 - b) Discuss the ownership characteristics of airports in India and internationally. [5+5]
- OR**
- 3.a) Write the rights and duties of an airport manager. What types of formal training and education programs exist for current and future airport managers?
 - b) Discuss some advantages of the user charge/trust fund approach? [6+4]
- 4.a) Describe the various qualitative and quantitative forecasting methods used in airport planning.
 - b) Evaluate the factors are commonly taken into consideration in planning the airport terminal area? [5+5]
- OR**
- 5.a) Describe the various processes involved with airport environmental planning. Why do you think environment always play a vital role in airport planning?
 - b) What areas of the airport are commonly considered within an airport capacity analysis? What is the importance of airport capacity analysis? [6+4]

- 6.a) Discuss briefly about passenger handling aspects in an airport.
b) Illustrate briefly about ramp layout and its importance in ground handling. [5+5]

OR

- 7.a) According to you how to improve control of ground handling efficiency?
b) Explain the process of bag drop as a part of baggage-handling processes. [5+5]

- 8.a) Write briefly about functions of the passenger terminal.
b) As an airport manager what are the direct passenger services you would provide? [5+5]

OR

- 9.a) How vital are passenger information systems? Justify your answer with an example.
b) What means can be used as aids to circulation of passengers to airport? Also state that how airport can be used for hubbing of market system? [5+5]

- 10.a) Elaborate briefly about safety management system.
b) Explain the function of air traffic control(ATC). [5+5]

OR

- 11.a) Discuss briefly about mobile services used in communication and navigation.
b) Justify how satellite navigation is playing a vital role in aviation? [5+5]

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