

R09

Code No: 58003

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**B. Tech IV Year II Semester Examinations, May - 2016****AIRPORT PLANNING AND DESIGN****(Civil Engineering)****Time: 3 Hours****Max. Marks: 75****Answer any Five Questions
All Questions Carry Equal Marks**

- 1.a) Describe the advantages and disadvantages of air transport compared to other modes of transport.
b) Discuss the role and structure of International Civil Aviation Organization (ICAO). [7+8]
- 2.a) Explain briefly the components of air transportation.
b) Discuss the factors affecting takeoff and landing distances. [7+8]
- 3.a) What are the governing considerations to be made when one has an option either to improve an existing airport or to develop a new airport?
b) Explain regional planning and state its advantages. [8+7]
4. Explain how runway length is determined on the basis of the performance characteristics of jet and conventional engine aircrafts. [15]
5. Explain the factors to be considered for selection of site of an airport. Discuss the critical issues involved. [15]
6. What are the requirements of a suitable site for terminal building development? Explain the broad principles to be kept in view for the convenience of passengers and baggage flow in terminal area of an airport. [15]
7. What are the main aims of an efficient air traffic control system? Describe in detail the instrument landing system with a sketch and state its limitations. [15]
8. Write short notes on the following:
a) Air traffic Control towers
b) Air route surveillance radar
c) Airport imaginary surfaces. [5+5+5]

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