

Hall Ticket No

--	--	--	--	--	--	--	--	--	--

Question Paper Code: AAE526



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

B.Tech VI Semester End Examinations (Regular) - May, 2019

Regulation: IARE – R16

AIR TRANSPORTATION SYSTEM

Time: 3 Hours

(AE)

Max Marks: 70

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

UNIT – I

- (a) Explain briefly about passenger load factor. Write about the significance of airline passenger load factors? [7M]

(b) What are the different causes and effects of downsizing in major segments of the government market? Describe the outlook for the civil aviation market in the early 2000s. [7M]
- (a) Discuss the characteristics of oligopolistic industries? Explain in detail about how it impacts on the airline industry [7M]

(b) A flight operates over 1278km with a seating capacity of 250. the flight is occupied with 217 passengers find its RPK and ASK of the flight. [7M]

UNIT – II

- (a) Enumerate the formation and responsibilities of regulatory bodies like ICAO, IATA, DGCA and FAA [7M]

(b) FEDERAL AVIATION ADMINISTRATION (FAA), is the one of the national authority what are the main functions of the FAA ,and how can you support your answer as it's very important to fly with these certificates in every national policies. [7M]
- (a) Define demand forecasting? With help of a chart explain historical traffic exploration [7M]

(b) What is very high frequency? Write about the use of press-to-transmit (PTT) buttons. [7M]

UNIT – III

- (a) What do you mean by the ground-proximity warning systems and explain with the help of neat sketch. [7M]

(b) What is take-off performance? Explain briefly about take-off performance chart of Boeing 777-200LR. [7M]
- (a) Examine how wake-vortices are generated and write about its relevance in air transportation system. [7M]

(b) Write about the contribution of recent advancement in technologies to the performance of airliners. [7M]

UNIT – IV

7. (a) Explain the ticketing process growth of airlines in the last few years with neat figures. [7M]
(b) Passengers terminals plays an important role in the airport environment write the terminal entrance role in the airport and security process. [7M]
8. (a) What do you mean by AFCS and explain with the help of neat sketch. [7M]
(b) Explain with the help of neat sketch the Electronic Flight Instrumentation system. [7M]

UNIT – V

9. (a) Write the security regulation types in the airport and aviation field for travelling of passenger in different countries. [7M]
(b) Give a brief note about ICAO, Future Air Navigation Systems (FANS) and its advantages and disadvantages when compared to existing systems. [7M]
10. (a) What is the role of human factors in the safety of aviation? Discuss. [7M]
(b) Explain about procedural ATC with radar assistance and draw the schematic diagram of a stage 1 procedural ATC system. [7M]

– o o ○ o o –