

CBCS SCHEME

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18AE641

Sixth Semester B.E. Degree Examination, Dec.2023/Jan.2024 Aircraft Transportation Systems

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. With neat figure described the systematic description of aircraft transportation system. (10 Marks)
b. Define Mobility. List out the different current challenges faced by aircraft transportation system. (10 Marks)

OR

- 2 a. With neat figure explain how the developments of aircraft design derive speed and range took place in early eras. (10 Marks)
b. Explain in brief :
i) About the roles of ICAO
ii) Development of Airlines and Airports (10 Marks)

Module-2

- 3 a. Explain the detailed structure of cabin design on considering the passengers comfort. (10 Marks)
b. With neat figures, explain in detail about
i) Flight envelope
ii) Pay load Range diagram (10 Marks)

OR

- 4 a. Describe the mass break down for a transport aircraft with a neat sketch. (10 Marks)
b. Explain in detail about the process involved in development of aircraft (from idea to product). (10 Marks)

Module-3

- 5 a. Write a note on different role of airport. (10 Marks)
b. Explain the airport operation and service in detail. (10 Marks)

OR

- 6 a. Explain in detail about the type of airline and the steps involved in MRO. (10 Marks)
b. Elaborate in detail about fleet strategy and aircraft selection. (10 Marks)

Module-4

- 7 a. List out the different go flight guidance system also discuss the same in detail. (10 Marks)
b. Explain in detail about the roles of aircraft, navigation services provided by ATS. (10 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

OR

- 8 a. How different modes of communication systems are subdivided in ATS, elaborate in a detailed manner. (10 Marks)
- b. How airspace structures are divided with the different types of surveillance used in different areas. (10 Marks)

Module-5

- 9 a. Describe in details about the trends in domestic passenger airfares. (10 Marks)
- b. Describe the factors considered in order to balance the public service and economic aspects of scheduling. (10 Marks)

OR

- 10 a. How do you define marketing mix, explain the variable involved in marketing mix. (10 Marks)
- b. What are the steps involved in aircraft selection process? Explain it with hub and spoke system. (10 Marks)
