



CBCS SCHEME

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15AE561

Fifth Semester B.E. Degree Examination, Jan./Feb. 2021 History of Flight and Technology Forecast

Time: 3 hrs.

Max. Marks: 80

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

Module-1

- 1 a. Discuss the early developments of aircrafts with examples. (06 Marks)
b. Write the contribution of Sir George Cayley to the field of aeronautics in detail with necessary illustrations. (10 Marks)

OR

- 2 a. Write a short note on OTTO LILIENTHAL – The grider man. (08 Marks)
b. Explain briefly the extension of the grider tradition by Percy Pilches. (08 Marks)

Module-2

- 3 Discuss about the first practical Airplane invented by Wilbur weight and Orville weight. (16 Marks)

OR

- 4 a. Describe the biplane and monoplane aircrafts with neat sketch. (08 Marks)
b. Write a short notes on development of aircrafts with respect to
i) Aerodynamic
ii) Structures
iii) Propulsion
iv) Materials. (08 Marks)

Module-3

- 5 a. Explain the different types of aircraft configuration. (08 Marks)
b. Write a short notes on basic components of an airplane and mention their functions. (08 Marks)

OR

- 6 a. Describe the conventional control and powered control of an aircraft with its advantages and disadvantages. (08 Marks)
b. With neat diagram, elaborate the basic instrument used for flying in an aircraft. (08 Marks)

Module-4

- 7 a. Briefly explain the following types of construction:
i) Monocoque
ii) Semimonocoque
iii) Geodesic. (08 Marks)
b. Explain the typical wing and fuselage structure with neat sketch. (08 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. Write a short notes on different types of aircraft material used in construction in olden and modern days. (08 Marks)
b. Draw the stress-strain diagram and mention the salient features in the graph. (08 Marks)

Module-5

- 9 Describe the different types of propulsive system used in various aircrafts with the principle of thrust production in each. (16 Marks)

OR

- 10 Classify the types of lockets and mention its principles with applications. (16 Marks)

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