



CBCS SCHEME

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

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1 a. With neat sketches, explain the early development in aviation history. (10 Marks)
b. Write a short note on Sir George Cayley and his contribution to aviation. (10 Marks)
- 2 a. Briefly explain the contribution of Percy Pilcher. (06 Marks)
b. With sketches, explain about "The Glider man" and its achievements in detail. (10 Marks)
c. Give a note on "The Interregnum". (04 Marks)
- 3 a. Explain the aeronautical triangle and briefly explain about the problems of propulsion. (10 Marks)
b. Explain the development of aircraft configuration and propulsion over the years. (10 Marks)
- 4 a. With the help of the time line, explain the achievements of Wright brothers in detail. (10 Marks)
b. Explain the development of materials used in the application of aircraft industry. (10 Marks)
- 5 a. Explain the working of four basic instruments used for flying. (12 Marks)
b. Enumerate the difference between the conventional control and powered control. (08 Marks)
- 6 a. With neat sketch, explain the components of an airplane and its functions. (12 Marks)
b. List the classification of different type of flight vehicles. (08 Marks)
- 7 a. Define Hooke's law. Draw the stress – strain diagram of an engineering material. (10 Marks)
b. Draw and explain the fuselage structure of an aircraft. (10 Marks)
- 8 a. Explain the various construction techniques of an aircraft fuselage. (12 Marks)
b. List the uses of titanium alloy, aluminium alloy and composite materials. (08 Marks)
- 9 a. With neat sketch, explain the working of turbo fan engine. (10 Marks)
b. List out the merits and demerits of turbo prop, turbojet and piston engine. (10 Marks)
- 10 a. With neat sketch, explain the working principle of a liquid rocket engine. (10 Marks)
b. Write the different classifications of rockets based on mission. (05 Marks)
c. How space exploration is carried out? With taking any one mission of any country explain the process in brief. (05 Marks)

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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.