

Q.29 Explain briefly the working of hydraulic system in an aircraft.

Q.30 What are the properties of turbine material?

Q.31 Describe the basic steps in aircraft design.

Q.32 Explain the joining process in aircraft production.

SECTION-D

Note: Long answer type questions. Attempt any three questions out of four questions. 3x10=30

Q.33 Describe the post Wright brother's history of aviation til today.

Q.34 What are different flight control systems? Describe briefly.

Q.35 Explain the working of high lift devices like flaps, slots and slats. What is a hovercraft?

Q.36 Draw the pressure profile for a symmetrical and cambered airfoil. Discuss the various types of wing plan-forms with their characteristics?

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No. of Printed Pages : 4

Roll No.

147733

3rd Sem. / AME

Subject : Introduction to Aeronautics

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Objective type questions. All questions are compulsory (10x1=10)

Q.1 Name the first flight of the mankind.

Q.2 Name two heavier than air aircraft?

Q.3 Name the main lifting surfaces of an airplane?

Q.4 Name the three axes of the aircraft?

Q.5 Name two engines used in aircrafts?

Q.6 What is the major structural component of a wing?

Q.7 Air speed indicator gives _____.

Q.8 What is the medium is hydraulic system?

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Q.9 What is all up weight?

Q.10 What is prop fan engine?

SECTION-B

Note:Very short answer type questions. Attempt any ten questions out of twelve questions. 10x2=20

Q.11 Name all the high lift devices used in aircrafts.

Q.12 What is an airship?

Q.13 Describe cl - α curve.

Q.14 What are important parts of aircraft gas turbine engines?

Q.15 Describe the working of a prop-fan engine.

Q.16 What is the principal of flying in airship?

Q.17 What is longitudinal stability?

Q.18 What is the condition for maximum endurance?

Q.19 What are the different materials used in turbine blades?

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Q.20 What is deicing system?

Q.21 What is the use of APU?

Q.22 Name the basic avionic instruments used in aircrafts.

SECTION-C

Note:Short answer type questions. Attempt any eight questions out of ten questions. 8x5=40

Q.23 Classify the lighter and heavier than aircrafts.

Q.24 What is the importance of drag polar.

Q.25 What is the requirement of stability in case of civil and military aircrafts?

Q.26 Explain the application of different types of engines used in aircrafts?

Q.27 What are the places where power plant can be fixed? What is the benefit of engines under the wing in an airplane?

Q.28 Explain the working of rate of climb indicator?

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