

- xiv) How the aircraft is saved from fire?
- xv) Explain the use of parachutes and emergency exits in different situation.

SECTION-C

Note: Long answer type questions. Attempt any three questions. $3 \times 10 = 30$

- Q.3 Draw a neat sketch of fuel system and explain it working.
- Q.4 What are the parameters to be controlled in an environment control systems. Sketch and explain a typical such system?
- Q.5 What are the properties of hydraulic fluids? What are the various functions of hydraulic system?
- Q.6 What is the requirement of a landing gear? Describe the different types of landing gear and their arrangements.
- Q.7 Describe the various emergency systems put in aircrafts and their use.

No. of Printed Pages : 4
Roll No.

147753

5th Sem. / AME Subject : Aircraft Systems

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. $(15 \times 2 = 30)$

- Q.1 a) What is the function of a pneumatic system?
- b) What is the medium of working in a pneumatic system?
- c) Compare pressure in hydraulic and pneumatic system.
- d) How the servos are controlled?
- e) What is retractable landing gear?
- f) What is the function of anti skid system?
- g) What is an ejection seat?
- h) What is electro hydro servo?

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147753

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147753

- i) What is a pressure suit?
- j) What systems are pneumatically controlled in aircrafts?
- k) What are various decing methods?
- l) What is the purpose of carrying oxygen bottles on board?
- m) What type of servos are used in all electrical aircrafts?
- n) Ejection seat is available in which type of aircrafts?
- o) What is fuel transfer?
- p) What is an accumulator?
- q) What is flame proofing?
- r) Name the various safety arrangements for passengers.

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

Q.2 i) Explain the function of various valves used

(2)

147753

in hydraulic systems.

- ii) What are the different pumps used in hydraulic system?
- iii) What is an actuators? How does it work?
- iv) Explain the working of electro-hydraulic actuator.
- v) At what pressure the cabin is maintained in different types of aircrafts?
- vi) What are the various components of cabin pressurising unit?
- vii) What are the uses of oxygen and in what form it is used?
- viii) Explain the working of retracting system of a landing gear.
- ix) What is anti skid steering?
- x) Describe are the types of fuels in aircrafts with their merits.
- xi) What is jettison and when it is used?
- xii) Name the different types of lubrication lubricants.
- xiii) Write a note on fire wall.

(3)

147753