

- Q.29 Explain seat ejection system.
- Q.30 What are the different types of lubrication systems?
- Q.31 What do you mean by flame proofing?
- Q.32 What are the principles of automatic control?
- Q.33 How is testing of different types of fuels done?
- Q.34 What type of hose pipes are used in hydraulic systems?
- Q.35 Explain anti-skid system?

#### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Explain and compare the working of hydraulic and pneumatic systems of an aircraft with example.
- Q.37 Explain a) Flow Dividers b) Heat Loads c) Capsules and bellows.
- Q.38 Describe emergency exit system. How are windows are emergency exits designed?

No. of Printed Pages : 4  
Roll No. ....

187753/147753

#### 5th Sem / Branch : AME Sub.: Aircraft Systems

Time : 3Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 The equipment nearest to elevator is  
a) Accumulator                      b) Reservoir  
c) Actuator                              d) Flow divider
- Q.2 A one-way valve that lets air into the reservoir of a compressor, but doesn't let it out, is a  
a) Check valve                      b) Receiver valve  
c) Control valve                      d) Three way valve
- Q.3 Servo motor has \_\_\_\_ terminals?  
a) Three                                  b) Four  
c) Two                                      d) One
- Q.4 The most common hydraulic fluid is  
a) Mineral oil                      b) Synthetic fluid  
c) Water                                  d) Gel
- Q.5 The power source in the pneumatic system is \_\_\_\_  
a) Muffler                                  b) Compressor  
c) Air receiver                      d) Valve

- Q.6 The cabin pressure is regulated by the \_\_\_\_\_ valve.  
 a) Outflow                      b) Inflow  
 c) Downward                      d) Upward
- Q.7 In air crafts, the cabin altitude during flight is kept above sea level so as to reduce stress on the pressurized part of the \_\_\_\_\_  
 a) Engines                      b) Wings  
 c) Fuselage                      d) Tail
- Q.8 What is the ambient air pressure at 40,000 feet?  
 a) 2 bar                      b) 0.2 bar  
 c) 20 bar                      d) 0.02 bar
- Q.9 Landing gear was previously referred to as \_\_\_\_\_  
 a) Alighting gear                      b) Resting gear  
 c) Moving gear                      d) Rolling gear
- Q.10 Which of the following is the most important criterion in selecting an appropriate fuel to power an aircraft?  
 a) Cost                      b) Density  
 c) Specific energy                      d) Efficiency

### SECTION-B

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

- Q.11 Name the equipment for storage of hydraulic fluid?

(2) 187753/147753

- Q.12 What is a servo system?
- Q.13 What is the name of main component of hydraulic landing gear?
- Q.14 What is the use of flow integrator?
- Q.15 Give two main equipment of oxygen system.
- Q.16 How is air is dried for pneumatic system?
- Q.17 What is liquid to gas converters?
- Q.18 What is the main indication in the fuel system?
- Q.19 What do you mean by cold air units?
- Q.20 Where the lubricant is used?

### SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Draw a basic hydraulic control system?
- Q.22 How does an electro hydraulic servo system work?
- Q.23 What is the role of Air bottles?
- Q.24 How does indication system work?
- Q.25 What is the design principle involved in landing gears?
- Q.26 What is the purpose of pressure suits?
- Q.27 What are the different components used in Hydraulic Systems.
- Q.28 How does Fire extinguishing system work?

(3) 187753/147753