Q.29 How does Force feedback work? Explain with loop diagram.

Q.30 What is the role of indications in landing gear? How do they work?

Q.31 What are the different types of fire protection systems?

Q.32 What are the disadvantages of pneumatic Systems?

Q.33 How does steering system work in landing gears?

Q.34 How do flow integrators work?

Q.35 How does a die-icing system work?

SECTION-D

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

Q.36 What are the different types of oxygen systems available? Explain in detail.

Q.37 Write in brief about

a) Life Rafts

b) Fire Detection Systems

Q.38 How are windows and emergency exits designed in accordance with Seat Safety instructions?

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AME
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SECTION-A

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

Q.1 The landing gears have a _____hours' time between overhaul.

a) 50,000 b) 5,000
c) 2,000 d) 20,000

Q.2 Which of the following is the body's most common response to hypoxia?

a) Hyperventilation b) Hypoxia
c) Barotrauma d) Sinus

Q.3 The most common hydraulic fluid is :

a) Mineral oil b) Synthetic fluid
c) Water d) Gel

Q.4 In aircraft, 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.5 Which of the following is not shown by backup instruments?

a) Speed b) Altitude

c) Heading d) Passengers onboard

Q.6 What is the disadvantage of bladder fuel tank ?

a) Loss of available volume

b) Self sealing

c) No loss is fuel volume

d) Thrust loading

Q.7 Landing hears fold away during the flight to reduce _____

a) Drag b) Thrust

c) Airspeed d) Altitude

Q.8 Hydraulic and pneumatic circuits:

a) Perform the same way for all functions

b) Perform differently for all functions

c) Perform the same with some exceptions

d) Does not perform all the functions

Q.9 The pressure inside the cabin is technically referred to as _____

a) Cabin bar b) Cabin pressure

c) Cabin altitude d) Cabin level

Q.10 The air used for pressurization is usually bled off from the engines, at the _____stage.

a) Cryogenic b) Compressor

c) Thermal d) Hydraulic

SECTION-B

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

Q.11 What is the role of valves in Fuel systems?

Q.12 How do compact heat exchangers work?

Q.13 What is force feedback?

Q.14 What is the need for oxygen bottles in aircraft?

Q.15 What is the role of actuators in Hydraulic systems?

Q.16 Give an example of cooling system.

Q.17 What do you mean by frequency response?

Q.18 Give two examples of Pilot's personal equipment.

Q.19 What is liquid to gas converters?

Q.20 What do you mean by cold air units?

SECTION-C

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

Q.21 What are cold air units? Where are they used?

Q.22 How does indication system work?

Q.23 What is the design principle involved in landing gears?

Q.24 How do pressure suits work?

Q.25 How does flame proofing work?

Q.26 What are the principles of automatic control?

Q.27 How are parachutes used as Seat safety system?

Q.28 What is the role of plumbing in fuel systems?