

- Q.27 Write short note on utility of emergency exits.
- Q.28 What are the different types of fuel tanks used in aircrafts ?
- Q.29 What are the different types of wings planforms ?
- Q.30 How control rigging is done ?
- Q.31 Write a short note on using Plywood in Aircraft Structure.
- Q.32 What is fail safe and safe fail concept ?
- Q.33 What are the types of control system used in aircrafts ?
- Q.34 How is testing of fuel tanks done ?
- Q.35 How are composites made ?

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Classify the different types of aircrafts with respect to different aspects with examples.
- Q.37 Write in detail about the minor defects, their effect and repair methodologies.
- Q.38 Explain the working of landing gear, brake system and airbrakes.

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**4th Sem / Branch : Aircraft Maintenance**

**Subject:- General Airframe and  
Aero Modelling**

Time : 3Hrs.

M.M. : 100

#### SECTION-A

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

- Q.1 How do you see stability and maneuverability
- More stability less maneuverability
  - More stability more maneuverability
  - More stability No maneuverability
  - More stability better maneuverability
- Q.2 Which of the following is correct ?
- Wood suffers from moisture sensitivity
  - Wood is not available, it is rare to find
  - Lift of wooden box will be same as drag
  - Wood surface is not sensitive to moisture at all
- Q.3 Which of the following tanks are used by combat aircraft, which needs to discard them after use for performance reasons ?
- Tip tank
  - Internal tank
  - Drop tank
  - Attack tank
- Q.4 Fuel tanks are located in the wing near.
- Root
  - Tip
  - Flaps
  - Aileron

- Q.5 Why does the landing gear retract into the wings and/or fuselage during flight ?
- To decrease drag
  - To increase airspeed
  - To decrease airspeed
  - To generate more thrust
- Q.6 Most of the transport aircraft have ?
- Dihedral wings
  - Anhedral wings
  - Swept forward wings
  - Elliptical wings
- Q.7 What is the function of trim tab control ?
- To minutely maneuver the a/c
  - Release pilot of stick force
  - To provide stability
  - All of the above
- Q.8 Most retraction systems are \_\_\_\_\_ operated.
- Thermally
  - Hydraulically
  - Mechanically
  - Electronically
- Q.9 What is Alclad ?
- Pure Aluminum coating to prevent corrosion
  - Aluminum and cadmium alloy
  - Whole surface cladded
  - None of the above
- Q.10 What is the full form of STOL ?
- Short take-off and landing
  - Straight take-off and landing
  - Swift take-off and landing
  - None of the above

## SECTION-B

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

- Q.11 What is the direction of lift in airplane ?
- Q.12 What is the shape of spars ?
- Q.13 What do you mean pure monocoque ?
- Q.14 What is a canard ?
- Q.15 What are the different aircraft types ?
- Q.16 What type of landing gear is there on gliders ?
- Q.17 What are the benefits of using composite in an aircraft ?
- Q.18 How the brakes are applied on wheels ?
- Q.19 Where is fabric used in an aircraft structure ?
- Q.20 What is the importance of minor structural repairs in aircraft ?

## SECTION-C

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

- Q.21 Name all the secondary control surfaces.
- Q.22 Draw a diagram of the loads acting on an aircrafts climbing at 45 degree.
- Q.23 What is stressed construction ?
- Q.24 What do you mean by aircraft component utility ?
- Q.25 Write a precautionary measure taken to avoid engine failure
- Q.26 Explain the working of flaps ?