**MODULE 08 BASIC AERODYNAMICS**

**(SUB MODULE 04 FLIGHT STABILITY AND DYNAMICS )**

Q1. Dihedral wings combat instability in.

A. yaw.

**B. side-slip.**

C. pit*c*h.

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q2. An aircraft, which is longitudinally stable, will tend to return to level flight after a movement in which axis?.

**A. Pitch.**

B. Yaw.

C. Roll.

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q3. The normal axis of an aircraft passes through.

**A. the centre of gravity.**

B. a point at the centre of the wings.

C. at the centre of pressure.

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q4. Directional stability is maintained.

A. by the tailplane, and controlled by the elevators.

**B. by the keel surface and fin, and controlled by the rudder.**

C. by the mainplanes, and controlled by the ailerons

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q5. Sweepback of the wings will.

A. decrease lateral stability.

B. not affect the lateral stability.

**C. increase lateral stability.**

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q6. Directional stability is about the.

A. lateral axis.

B. longitudinal axis.

**C. normal axis.**

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q7. Lateral stability is about the.

**A. longitudinal axis.**

B. normal axis.

C. vertical axis.

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q7.If the aircraft turns and side-slips.

A. the sweepback of the wing will correct the sideslip.

B. the keel surface will correct the sideslip.

**C. the dihedral of the wing will correct the sideslip**

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q8. The fin gives stability about which axis?.

A. Longitudinal axis.

B. Lateral axis.

**C. Normal axis**

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q9. Movement of an aircraft about its normal axis.

A. is rolling.

**B. is yawing.**

C. is pitching.

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q10. Movement of an aircraft about its lateral axis.

A. is rolling.

B. is yawing.

**C. is pitching.**

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q11. Movement of an aircraft about its longitudinal axis.

**A. is rolling.**

B. is yawing.

C. is pitching.

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q12. If an aircraft returns to a position of equilibrium it is said to be.

**A. positively stable.**

B. neutrally stable.

C. negatively stable.

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q13. The pendulum effect on a high wing aircraft.

A. has no effect on lateral stability.

**B. increases lateral stability.**

C. decreases lateral stability.

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q14. Yawing is a rotation around.

A. the lateral axis obtained by the rudder.

**B. the normal axis obtained by the rudder.**

C. the normal axis obtained by the elevator.

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q15. Sweepback of the wings will.

A. increase lateral stability at high speeds only.

B. not affect lateral stability.

**C. increase lateral stability at all speeds**

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q16. If you have an aircraft that is more laterally stable then directionally stable it will tend to : .

A. bank.

B. slip.

**C. skid.**

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q17. Which control surfaces provide lateral control , also longitudinal control and stability?.

A. Ruddervators.

**B. Tailerons.**

C. Flapperons.

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q18. If, after a disturbance, an aeroplane initially returns to its equilibrium state.

A. it has neutral stability.

**B. it has static stability and may be dynamically stable.**

C. it is neutrally unstable.

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q19. The lateral axis is.

A. a straight line through the CG at right angles to the longitudinal and lateral axis.

B. a straight line through the CG from nose to tail.

**C. a straight line through the CG parallel to a line joining the wingtips.**

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2

Q20. The main factors which affect longitudinal stability are.

A. design of the fuselage and position of the CG.

B. design of the mainplane and position of the CG.

**C. design of the tailplane and position of the CG.**

Ref: (EASA MODULE 08 BOOK SUB MOD 04) Level- 2