Question block created by wizard

This exam contains 20 questions

1. In the atmosphere of the earth, where starts the Tropopause?

o (a) At the Transition Altitude (TA).
o (b) At about 51 km height.

• (c) At the altitude where the temperature remains stable with an increase in height.

If choice c is selected set score to 1.

2. The mean sea level pressure is....

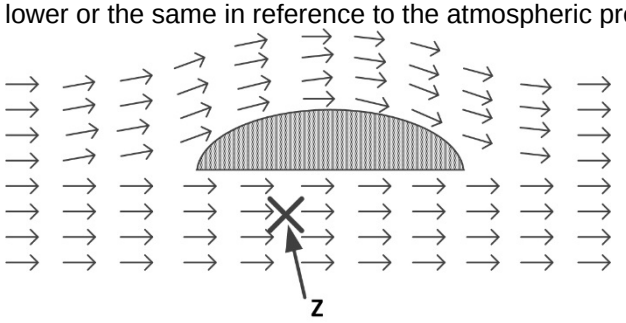
o (a) the mean atmospheric pressure at sea level on a standard day (1bar, 20° C).

• (b) the mean atmospheric pressure at sea level.

o (c) the mean pressure of the air at sea level, corrected for a temperature of 20° C.

If choice b is selected set score to 1.

3. This is an object placed in a sub-sonic air flow. At the location of ' Z ' the pressure is higher, lower or the same in reference to the atmospheric pressure?



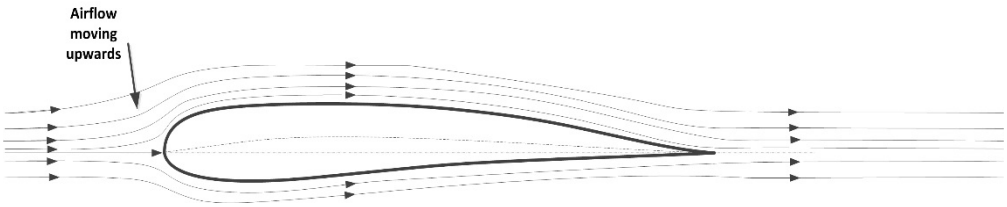
o (a) Higher

• (b) Same

o (c) Lower

If choice b is selected set score to 1.

4. As indicated in the figure, the airflow in front of the aerofoil is moving upward. How is this called?

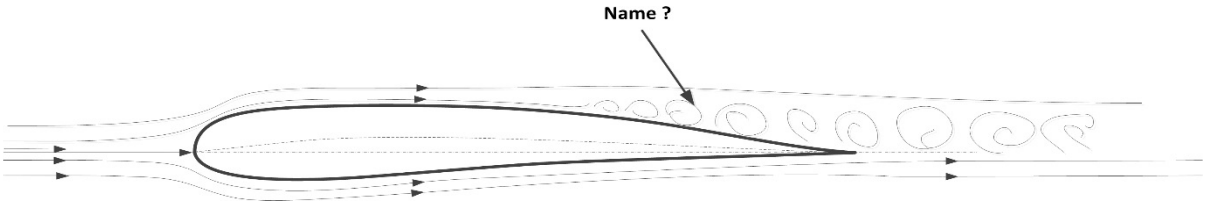


- (a) Up Wash

o (b) Wake
o (c) Shock Wave

If choice a is selected set score to 1.

5. What is indicated by the arrow in this figure?

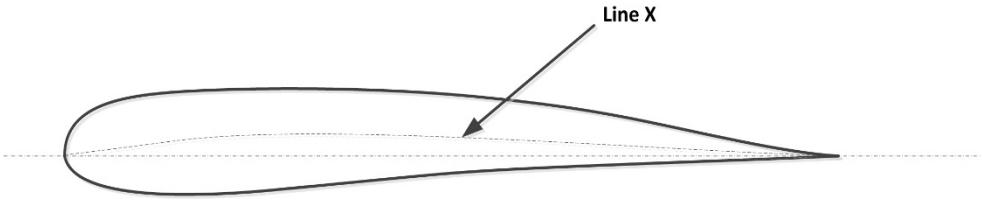


- (a) Turbulent airflow.

o (b) Sub-sonic, Boundary layer flow
o (c) Down Wash

If choice a is selected set score to 1.

6. In the figure an aerofoil is indicated. What is the name of the indicated line X?



- (a) Camber Line

o (b) Span Line
o (c) Chord Line

If choice a is selected set score to 1.

7. An aerofoil with a low camber is typically used for....

- (a) aircraft flown at high speeds.

- o (b) vertical stabilizers.
- o (c) aircraft flown at low speeds.

If choice a is selected set score to 1.

8. The resulting force on the wing acts...

- • (a) on the chordline.

- o (b) on the camberline.
- o (c) in the centre of gravity.

If choice a is selected set score to 1.

9. Where does the resulting force on the wing come from?

- • (a) The sum of all under-pressure and over-pressure forces.

- o (b) The sum of all under-pressure forces.
- o (c) The sum of all the over-pressure forces.

If choice a is selected set score to 1.

10. The stalling of an aerofoil is affected by the...

- • (a) angle of attack.

- o (b) drag.
- o (c) transition speed.

If choice a is selected set score to 1.

11. A stall is...

- o (a) not dependent on speed.

- • (b) the result of an increase in the angle of attack.

- o (c) present in boundary layer of the stagnation point.

If choice b is selected set score to 1.

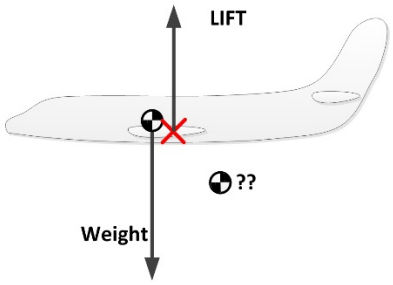
12. What is the effect of aerofoil contamination on the boundary layer?

- • (a) The wing lift capability deteriorates.

- o (b) The wing lift capability stays stable.
- o (c) The aircraft weight may decrease.

If choice a is selected set score to 1.

13. In the picture, the weight intervenes in a certain point. What is the name of this point?



o (a) Stagnation Point

- (b) Centre of gravity

o (c) Pressure Point

If choice b is selected set score to 1.

14. A glider (without an engine) moves forward. How is this possible?

o (a) By the drag element of the lift which pushes the aircraft forward.

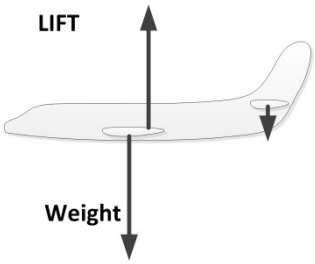
- (b) By a component of the weight which pulls the aircraft forward.

o (c) By the tail wind.

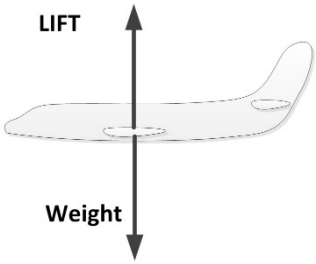
If choice b is selected set score to 1.

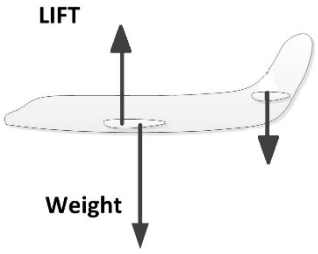
15. During a normal steady state flight, the resultant of Lift and weight forces are properly represented in picture?

- (a)



o (b)





o (c)

If choice a is selected set score to 1.

16. Which of the following control surfaces are primary control surfaces?

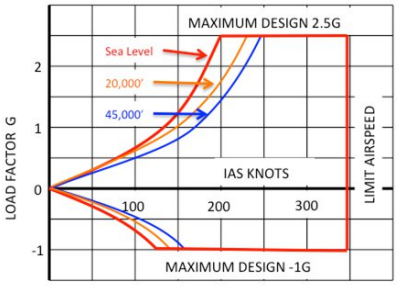
o (a) Roll spoilers, elevators, tabs.

• (b) Elevators, ailerons, rudder.

o (c) Elevators, roll spoilers, tabs.

If choice b is selected set score to 1.

17. What is the Normal Stall Speed at sea level in the shown manoeuvring or flight envelope?



o (a) Approximately 75 knots.
o (b) Approximately 200 knots.

• (c) Approximately 125 knots.

If choice c is selected set score to 1.

18. Lowering the flaps....

o (a) increases drag.
o (b) increases lift.

• (c) increases drag and lift.

If choice c is selected set score to 1.

19. Yaw dampers are designed to....

o (a) reduce the effect of crabbing due to cross winds.

- (b) assist the pilot to move the rudder.
- (c) prevent Dutch Roll.

If choice c is selected set score to 1.

20. Directional stability is maintained by....

- (a) the ailerons.
- (b) the vertical tail-plane and controlled by the rudder.
- (c) the horizontal tail-plane and controlled by the elevators.

If choice b is selected set score to 1.

If assessment score is 75% to 100% Pass
If assessment score is 0% to 74% Fail