

### Question block created by wizard

This exam contains 20 questions

1. In which atmospheric layer occurs the majority of all of the common weather conditions, like rain snow and clouds?

- (a) Ionosphere
- (b) Inside the transition layer.
- (c) Troposphere

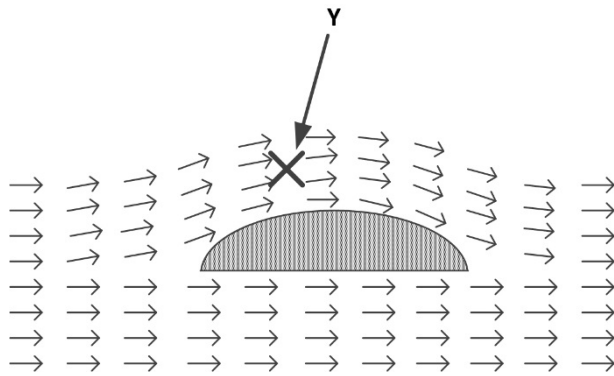
*If choice c is selected set score to 1.*

2. Pilots use the current area mean sea level barometric pressure (QNH)....

- (a) to regulate the temperature in the cabin.
- (b) to indicate speed.
- (c) when approaching an airfield.

*If choice c is selected set score to 1.*

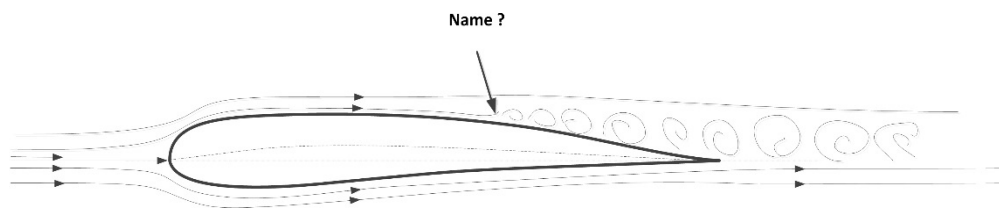
3. This is an object placed in a sub-sonic air-flow. At the location of ' Y ' the pressure is higher, lower or the same in reference to the atmospheric pressure?



- (a) Same
- (b) Higher
- (c) Lower

*If choice c is selected set score to 1.*

4. Which point is indicated by the arrow in this figure?



- (a) Centre of Pressure
- (b) Stagnation Point
- (c) Transition Point

*If choice c is selected set score to 1.*

5. The layer of air over the surface of an aerofoil which is slower moving, in relation to the rest of the airflow, is known as?

- (a) Camber Layer
- (b) Boundary Layer
- (c) Chord

*If choice b is selected set score to 1.*

6. If the speed of an aircraft is increased, the induced drag will....

- (a) increase.
- (b) decrease.
- (c) remain the same.

*If choice b is selected set score to 1.*

7. If the aerodynamic angle of attack is increased, resulting in a stall, the centre of pressure of the wing will....

- (a) move forward.
- (b) move backward.
- (c) will not change.

*If choice a is selected set score to 1.*

8. What happens to the lift if the airflow velocity over an upper cambered surface of an aerofoil decreases?

- (a) Lift decreases.
- o (b) Lift increases.
- o (c) Lift remains the same.

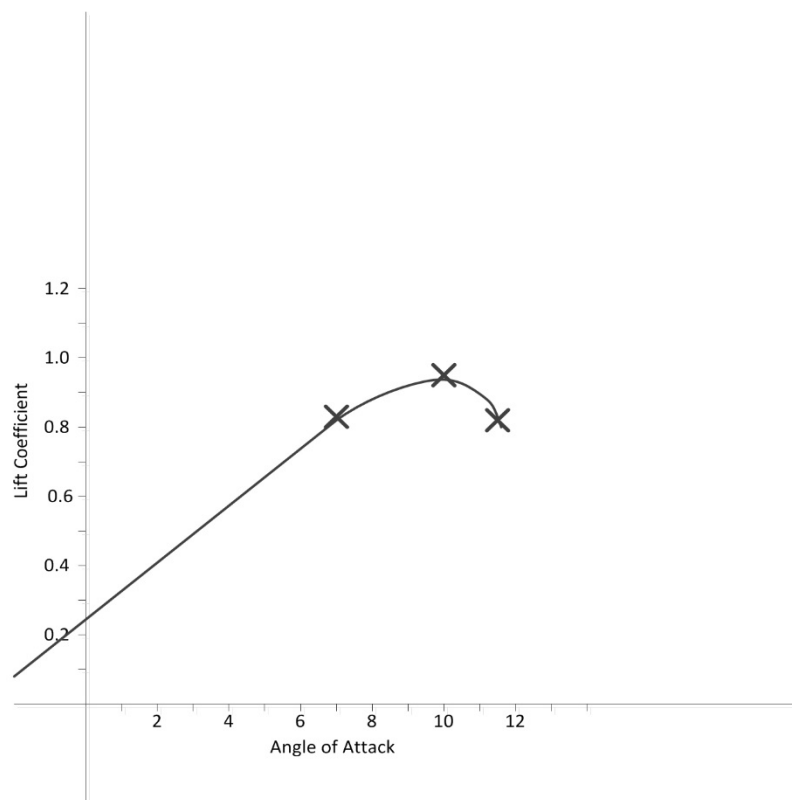
*If choice a is selected set score to 1.*

9. What force tends to pull an aircraft downwards to the earth?

- o (a) Thrust
- (b) Weight
- o (c) Drag

*If choice b is selected set score to 1.*

10. Refer to the picture. At which angle of attack will this aircraft start to stall?



- (a) At 10 degrees
- o (b) At 11,5 degrees.
- o (c) At 7 degrees

If choice a is selected set score to 1.

**11.** The stalling of an aerofoil is affected by the...

- (a) angle of attack.
- o (b) transition speed.
- o (c) drag.



If choice a is selected set score to 1.

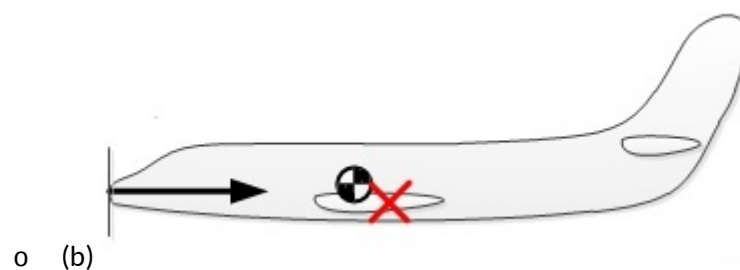
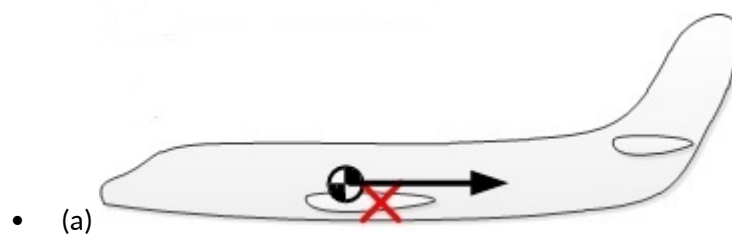
**12.** The removal of fresh snow from an aircraft, which has been on the ground for a couple of hours is called?

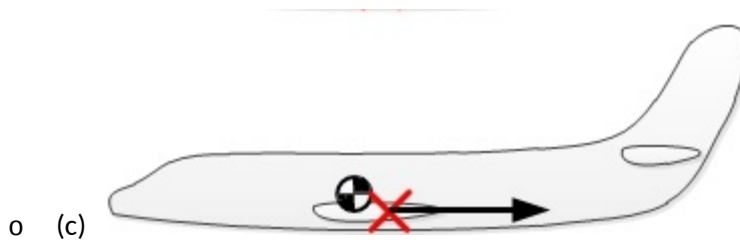
- o (a) Anti-Icing.
- o (b) Snow Shovel
- (c) De-Icing

If choice c is selected set score to 1.

**13.** Which of the pictures provides the intervention point of the drag force in a horizontal flight?

-  Centre of Gravity
-  Centre of Pressure





*If choice a is selected set score to 1.*

**14.** During a glide, the pilot tries to maximize the gliding distance. Which ratio is very important?

- (a) L/D (Lift drag ratio)
- (b) W/L (Weight lift ratio)
- (c) W/D (Weight drag ratio)

*If choice a is selected set score to 1.*

**15.** When the speed of an aeroplane decreases the...

- (a) drag decreases.
- (b) drag increases.
- (c) drag stays the same.

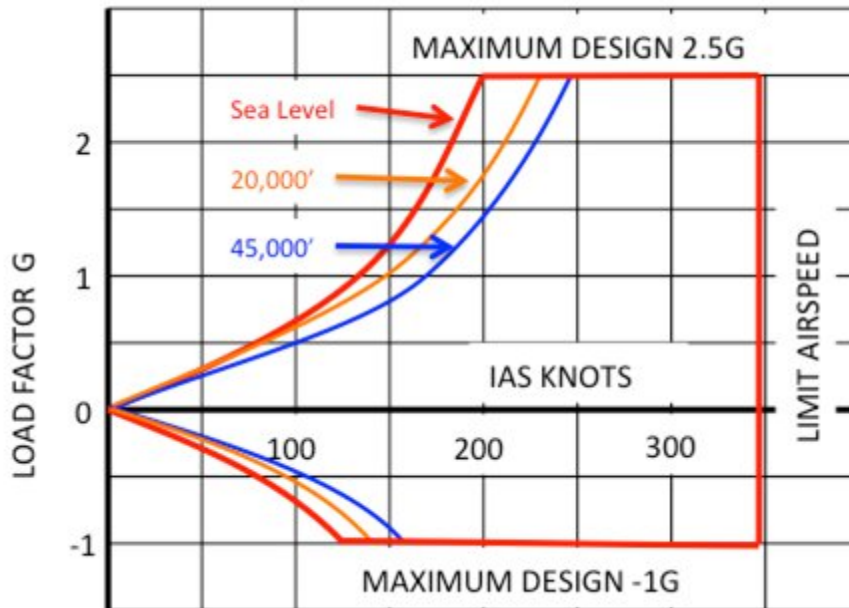
*If choice a is selected set score to 1.*

**16.** The load-factor (or 'g' force) on an aircraft in a banked turn is related to the....

- (a) mass.
- (b) altitude of speed.
- (c) angle of bank.

*If choice c is selected set score to 1.*

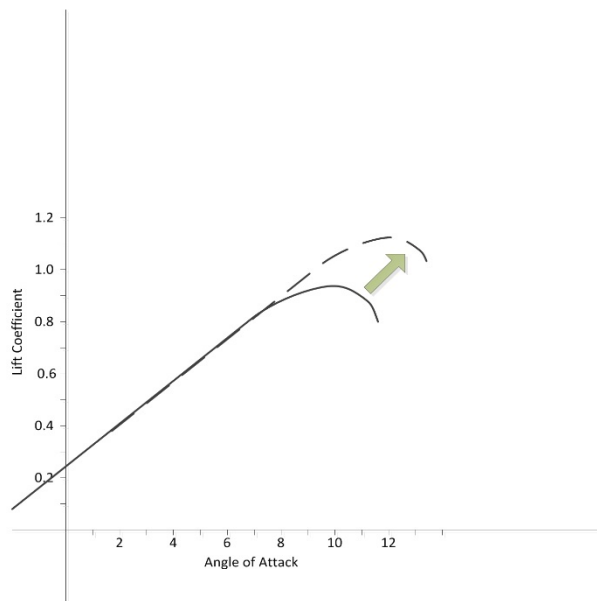
17. What could happen if the aircraft flies (during a horizontal flight) faster than 350 knots?



- (a) The pilot has past the structural limits, a structural failure could occur.
- o (b) This cannot happen, this aircraft cannot fly faster than 300 knots.
- o (c) A stall could occur.

*If choice a is selected set score to 1.*

18. The improved Lift Coefficient at a higher Angle of Attack is the result of using....



- o (a) flaps.

- (b) leading edge slats.
- o (c) spoilers.

*If choice b is selected set score to 1.*

**19.** An aircraft in a steady state flight is disturbed. If after this disturbance the aircraft returns to steady state flight again. How is this called?

- o (a) Neutral Static Stability
- (b) Positive Dynamic Stability
- o (c) Trimming

*If choice b is selected set score to 1.*

**20.** Lateral stability is assisted by....

- o (a) deflection of spoilers.
- o (b) anhedral.
- (c) dihedral.

*If choice c is selected set score to 1.*

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