

Cessna Private Pilot Course
Quiz 1: Knowing Your Airplane

1. The four forces acting on an airplane in flight are
 - A. lift, weight, thrust, and drag.
 - B. lift, weight, gravity, and thrust.
 - C. lift, gravity, power, and friction.
2. When are the four forces that act on an airplane in equilibrium?
 - A. During unaccelerated flight.
 - B. When the aircraft is accelerating.
 - C. When the aircraft is at rest on the ground.
3. What is the relationship of lift, drag, thrust, and weight when the airplane is in straight-and-level flight?
 - A. Lift equals weight and thrust equals drag.
 - B. Lift, drag, and weight equal thrust.
 - C. Lift and weight equal thrust and drag.
4. The left turning tendency of an airplane caused by P-factor is the result of the
 - A. clockwise rotation of the engine and the propeller turning the airplane counter-clockwise.
 - B. propeller blade descending on the right, producing more thrust than the ascending blade on the left.
 - C. gyroscopic forces applied to the rotating propeller blades acting 90° in advance of the point the force was applied.
5. An airplane said to be inherently stable will
 - A. be difficult to stall.
 - B. require less effort to control.
 - C. not spin.
6. What is the purpose of the rudder on an airplane?
 - A. To control yaw.
 - B. To control overbanking tendency.
 - C. To control roll.
7. The amount of excess load that can be imposed on the wing of an airplane depends upon the
 - A. position of the CG.
 - B. speed of the airplane.
 - C. abruptness at which the load is applied.
8. One of the main functions of flaps during approach and landing is to
 - A. decrease the angle of descent without increasing the airspeed.
 - B. permit a touchdown at a higher indicated airspeed.
 - C. increase the angle of descent without increasing the airspeed.
9. If the pitot tube and outside static vents become clogged, which instruments would be affected?
 - A. The altimeter, airspeed indicator, and turn-and-slip indicator.
 - B. The altimeter, airspeed indicator, and vertical speed indicator.
 - C. The altimeter, attitude indicator, and turn-and-slip indicator.
10. Which instrument will become inoperative if the pitot tube becomes clogged?
 - A. Altimeter.
 - B. Vertical speed.
 - C. Airspeed.

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11. Altimeter setting is the value to which the barometric pressure scale of the altimeter is set so the altimeter indicates
- A. calibrated altitude at field elevation.
 - B. absolute altitude at field elevation.
 - C. true altitude at field elevation.
12. The pitot system provides impact pressure for which instrument?
- A. Altimeter.
 - B. Vertical-speed indicator.
 - C. Airspeed indicator.
13. **(Refer to figure 5.)** A turn coordinator provides an indication of the
- A. movement of the aircraft about the yaw and roll axes.
 - B. angle of bank up to but not exceeding 30°.
 - C. attitude of the aircraft with reference to the longitudinal axis.
14. To receive accurate indications during flight from a heading indicator, the instrument must be
- A. set prior to flight on a known heading.
 - B. calibrated on a compass rose at regular intervals.
 - C. periodically realigned with the magnetic compass as the gyro precesses.
15. Deviation in a magnetic compass is caused by the
- A. presence of flaws in the permanent magnets of the compass.
 - B. difference in the location between true north and magnetic north.
 - C. magnetic fields within the aircraft distorting the lines of magnetic force.
16. In the Northern Hemisphere, the magnetic compass will normally indicate a turn toward the south when
- A. a left turn is entered from an east heading.
 - B. a right turn is entered from a west heading.
 - C. the aircraft is decelerated while on a west heading.
17. During flight, when are the indications of a magnetic compass accurate?
- A. Only in straight-and-level unaccelerated flight.
 - B. As long as the airspeed is constant.
 - C. During turns if the bank does not exceed 18°.
18. When taxiing with strong quartering tailwinds, which aileron positions should be used?
- A. Aileron down on the downwind side.
 - B. Ailerons neutral.
 - C. Aileron down on the side from which the wind is blowing.
19. In what flight condition must an aircraft be placed in order to spin?
- A. Partially stalled with one wing low.
 - B. In a steep diving spiral.
 - C. Stalled.
20. What is ground effect?
- A. The result of the interference of the surface of the Earth with the airflow patterns about an airplane.
 - B. The result of an alteration in airflow patterns increasing induced drag about the wings of an airplane.
 - C. The result of the disruption of the airflow patterns about the wings of an airplane to the point where the wings will no longer support the airplane in flight.