

Private Pilot Checkride – Procedures Guide

Slow Flight/Minimum Control Airspeed

PTS Standards:

Establishes and maintains an airspeed at which any further increase in angle of attack, increase in load factor, or reduction in power, would result in an immediate stall. Maintains the specified altitude, +/- 100 feet; specified heading, +/- 10 degrees; airspeed, +10/-0 knots; and specified angle of bank, +/- 10 degrees.

1. Stabilize the airplane at the assigned altitude and on the assigned heading at 2000 RPM.
2. Begin the maneuver with a 90 degree clearing turn to the left followed by another 90 degree clearing turn to the right.
3. Reduce the power to 1500 RPM. Maintain the assigned altitude by slowly increasing the pitch/angle of attack. When the stall horn sounds, maintain the pitch attitude and add power to maintain altitude (usually around 1800 RPM).

At this point, the examiner will ask you to demonstrate straight and level, climbs, turns and descents while maintaining a slow flight attitude/aircraft configuration. The examiner may or may not ask you to demonstrate the maneuver with flaps. When adding flaps, remember, the first 10 degrees of flaps will produce significant lift. Be prepared for this and do not allow the pitch to increase and the altitude to climb. As you increase the flap setting beyond 10 degrees, add power as needed to overcome the increased drag and maintain altitude.

Power Off /Approach to Landing Stall

PTS Standards:

Establishes a stabilized descent in the approach or landing configuration, as specified by the examiner. Maintains a specified heading, +/- 10 degrees if in straight flight; maintains a specified angle of bank, not to exceed 20 degrees, +/- 10 degrees if in turning flight, while inducing the stall. Recognizes and recovers promptly after a fully developed stall occurs. Retracts the flaps to the recommended settings and establishes a positive rate of climb at V_x or V_y . Returns to the altitude, heading and airspeed as assigned by the examiner.

1. Stabilize the airplane at the assigned altitude and on the assigned heading at 2000 RPM.
2. Begin the maneuver with a 90 degree clearing turn to the left followed by another 90 degree clearing turn to the right.
3. From left to right – pull carburetor heat, power to 1500 RPM, 10 degrees of flaps.
4. Begin a standard rate turn to the left and a gradual descent – approximately 500 FPM.
5. As you begin the descent, slowly close the throttle and lower the flaps to full (40 degrees).
6. Maintain the standard rate turn to the left, when the flaps are all the way down, slowly increase the pitch until the wing fully stalls.
*** RECOVER WITH MINIMUM LOSS OF ALTITUDE ***
7. Immediately after the full stall, slightly reduce the angle of attack – lower the nose, wings level, full power, carburetor heat off and bring the flaps to 10 degrees. Begin a 4 second count and stop the flaps at 10 degrees.
8. As soon as the airspeed increases to 70 mph, pitch the nose up and climb at V_x – 70 mph.
9. As soon as you have stabilized the airplane with a positive rate of climb, bring the rest of the flaps up.
10. Return to the altitude, heading and airspeed as specified by the examiner.

Power On/Takeoff and Departure Stall

PTS Standards:

Establishes the takeoff and departure configuration as specified by the examiner. Sets power to no less than 65% available power. Maintains a specified heading, +/- 10 degrees if in straight flight; maintains a specified angle of bank, not to exceed 20 degrees, +/- 10 degrees if in turning flight, while inducing the stall. Recognizes and recovers promptly after a fully developed stall occurs.

1. Stabilize the airplane at the assigned altitude and on the assigned heading at 2000 RPM.
2. Begin the maneuver with a 90 degree clearing turn to the left followed by another 90 degree clearing turn to the right.
3. Power to 1500 RPM and maintain altitude by increasing the pitch/angle of attack.
4. Begin a standard rate turn to the left. When the airspeed slows to 60 mph, simultaneously increase the pitch to an attitude that you know will result in a stall and push the throttle in approximately half throttle.
5. Immediately after the full stall, slightly reduce the angle of attack – lower the nose, wings level, full power and climb at $V_x - 70$ mph.
6. Return to the altitude, heading and airspeed as specified by the examiner.

Steep Turns

PTS Standards:

Establishes the manufacturer's recommended airspeed or a safe airspeed not to exceed V_A . Rolls in to a coordinated 360 degree turn and maintains a 45 degree bank. Performs the task in the opposite direction as specified by the examiner. Maintains the entry altitude, +/-100 feet, airspeed +/- 10 knots, bank, +/- 5 degrees, and rolls out on the entry heading, +/- 10 degrees.

1. Stabilize the airplane at the assigned altitude and on the assigned heading at 2100 RPM.
2. Begin the maneuver with a 90 degree clearing turn to the left followed by another 90 degree clearing turn to the right.
3. Once you are stabilized on the assigned heading and properly trimmed for level flight at 2100 RPM, roll in to the steep turn and apply one and one-half turns of nose up trim.
4. Maintain the assigned altitude and a 45 degree bank by dividing your attention between the nose of the airplane on the horizon, the altimeter and the turn coordinator.
5. Roll out on to the assigned heading by leading your roll out by $\frac{1}{2}$ of the bank angle. If you are maintaining a 45 degree angle of bank, lead your roll out by 22 degrees.
6. Apply slight nose down pressure as you level your wings for a second, then immediately roll in to a 360 degree steep turn in the opposite direction.