

06/25/2009

Bank: (Flight and Ground Instructor)

Airman Knowledge Test Question Bank

The FAA computer-assisted testing system is supported by a series of supplement publications. These publications, available through several aviation publishers, include the graphics, legends, and maps that are needed to successfully respond to certain test items. Use the following URL to download a complete list of associated supplement books: http://www.faa.gov/training_testing/testing/airmen/test_questions/

The Learning Statement Reference Guide for Airman Knowledge Testing contains listings of learning statements with their associated codes. It can be located at: http://www.faa.gov/training_testing/testing/airmen/media/LearningStatementReferenceGuide.pdf

1. PLT238 CFI

Aspect ratio of a wing is defined as the ratio of the

- A) wingspan to the wing root.
- B) wingspan to the mean chord.
- C) square of the chord to the wingspan.

2. PLT240 CFI

As the CG location is changed, recovery from a stall becomes progressively

- A) less difficult as the CG moves rearward.
- B) more difficult as the CG moves rearward.
- C) more difficult as the CG moves either forward or rearward.

3. PLT245 CFI

What is the effect of center of gravity on the spin characteristics of a fixed-wing aircraft? If the CG is too far

- A) aft, a flat spin may develop.
- B) forward, spin entry will be difficult.
- C) aft, spins can become high-speed spirals.

4. PLT132 CFI

In a twin-engine airplane, the single-engine service ceiling is the maximum density altitude at which VYSE will produce

- A) 50 feet per minute rate of climb.
- B) 100 feet per minute rate of climb.
- C) 500 feet per minute rate of climb.

5. PLT013 CFI
(Refer to figure 30.) Using a maximum demonstrated crosswind component equal to 0.2 VSO, what is a pilot able to determine?
- | | |
|-------------|----------------|
| VSO | 60 kts |
| Landing Rwy | 12 |
| Wind | 150° at 20 kts |
- A) Headwind component is excessive.
B) Crosswind component is within safe limits.
C) Maximum demonstrated crosswind component is exceeded.
6. PLT023 CFI
What is true altitude?
- A) The vertical distance of the aircraft above sea level.
B) The vertical distance of the aircraft above the surface.
C) The height above the standard datum plane.
7. PLT278 CFI
Prior to starting the engine, the manifold pressure gauge usually indicates approximately 29 inches Hg. This is because the
- A) pointer on the gauge is stuck at the full-power indication.
B) throttle is closed, trapping high air pressure in the manifold.
C) pressure within the manifold is the same as atmospheric pressure.
8. PLT253 CFI
When the pilot leans the mixture control, what is being accomplished?
- A) The volume of air entering the carburetor is being reduced.
B) The volume of air entering the carburetor is being increased.
C) The amount of fuel entering the combustion chamber is being reduced.
9. PLT435 CFI
As standard operating practice, all inbound traffic to an airport without a control tower should continuously monitor the appropriate facility from a distance of
- A) 25 miles.
B) 20 miles.
C) 10 miles.
10. PLT141 CFI
A series of continuous red lights in the runway centerline lighting indicates that
- A) 3,000 feet of runway remain.
B) 1,000 feet of runway remain.

C) one-half of the runway remains.

11. PLT141 CFI

What does a destination sign identify?

- A) Entrance to the runway from a taxiway.
- B) Direction to takeoff runways.
- C) Runway on which an aircraft is located.

12. PLT141 CFI

What is the purpose of the runway hold position sign?

- A) Denotes entrance to a runway from a taxiway.
- B) Denotes area protected for an aircraft approaching or departing a runway.
- C) Denotes taxiway location.

13. PLT244 CFI

If poor aircraft controllability is experienced during an emergency go-around with full flaps, the cause is most probably due to

- A) excessive airspeed with full flaps extended.
- B) the high-power, low-air-speed situation with the airplane trimmed for a full-flap configuration.
- C) a reduction in the angle of attack with full flaps to the point where the aircraft control is greatly impaired.

14. PLT219 CFI

When performing a lazy eight, when should the aircraft be at minimum airspeed?

- A) 45° point.
- B) 90° point.
- C) 180° point.

15. PLT219 CFI

What will cause the nose of an aircraft to move in the direction of the turn before the bank starts in a turn entry?

- A) Rudder being applied too late.
- B) Rudder being applied too soon.
- C) Failure to apply back elevator pressure.

16. PLT219 CFI

Two distinct flight situations should be covered when teaching slow flight. These are the establishment and maintenance of

- A) airspeeds appropriate for landing approaches, and flight at reduced airspeeds.
- B) an airspeed which gives a stall warning indication, and an airspeed at which complete recovery can be made from stalls.

C) an airspeed at which the airplane is operating on the back side of the power curve, and an airspeed at which the elevator control can be held full-back with no further loss of control.

17. PLT258 CFI

(Refer to figure 49.) The angle of bank will be most nearly equal in which positions?

- A) 3 and 7.
- B) 1 and 5.
- C) 4 and 6.

18. PLT486 CFI

When explaining the techniques used for making short- and soft-field takeoffs, it would be correct to state that

- A) during soft-field takeoffs, lift-off should be made as soon as possible.
- B) during soft-field takeoffs, lift-off should be made only when best angle-of-climb speed is attained.
- C) during short-field takeoffs, lift-off should be attempted only after best rate-of-climb speed is attained.

19. PLT333 CFI

One aid in increasing night vision effectiveness would be to

- A) look directly at objects.
- B) force the eyes to view off center.
- C) increase intensity of interior lighting.

20. PLT012 CFI

On a cross-country flight, point A is crossed at 1500 hours and the plan is to reach point B at 1530 hours. Use the following information to determine the indicated airspeed required to reach point B on schedule.

Distance between A and B	70 NM
Forecast wind	310° at 15 kts
Pressure altitude	8,000 ft
Ambient temperature	-10 °C
True course	270°

The required indicated airspeed would be approximately

- A) 126 knots.
- B) 137 knots.
- C) 152 knots.

21. PLT012 CFI

(Refer to figure 40.) The line from point A to point B of the wind triangle represents

- A) true heading and airspeed.
- B) true course and groundspeed.

C) groundspeed and true heading.

22. PLT012 CFI

If a true heading of 135° results in a ground track of 130° and a true airspeed of 135 knots results in a groundspeed of 140 knots, the wind would be from

- A) 019° and 12 knots.
- B) 200° and 13 knots.
- C) 246° and 13 knots.

23. PLT101 CFI

Which statement about longitude and latitude is true?

- A) Lines of longitude are parallel to the Equator.
- B) Lines of longitude cross the Equator at right angles.
- C) The 0° line of latitude passes through Greenwich, England.

24. PLT225 CFI

If an aircraft has a transponder, encoding altimeter, and DME, the proper equipment suffix to be entered on a flight plan is

- A) A.
- B) R.
- C) U.

25. PLT078 CFI

Information concerning parachute jumping sites may be found in the

- A) NOTAM's.
- B) Airport/Facility Directory.
- C) Graphic Notices and Supplemental Data.

26. PLT014 CFI

If you are 30 miles from the NDB transmitter and the ADF indicates 3° off course, how many miles off course are you?

- A) 1.5.
- B) 3.
- C) 6.

27. PLT014 CFI

The ADF indicates a 5° wingtip bearing change in 2.5 minutes' elapsed time. If the true airspeed is 125 knots, the distance to the station would be

- A) 31.2 NM.
- B) 56.5 NM.
- C) 62.5 NM.

28. PLT484 CFI
Which is the correct symbol for the minimum steady flight speed at which an airplane is controllable?
A) V_s .
B) V_{s1} .
C) V_{so} .
29. PLT405 CFI
Your student, who is preparing for a Private Pilot practical test in a single-engine airplane, received 3.5 hours of cross-country flight training including flights of 1.9 hours, 1.0 hours, and .6 hours. Is your student eligible to take the practical test?
A) No.
B) Yes.
C) Yes but, if test is satisfactory, certificate will have an ICAO limitation on it.
30. PLT407 CFI
Under FAR Part 61, a commercial pilot-airplane applicant is required to have a minimum of how much cross-country experience?
A) 30 hours.
B) 40 hours.
C) 50 hours.
31. PLT052 CFI
What is the correct departure procedure at a noncontrolled airport?
A) The FAA-approved departure procedure for that airport.
B) Make all left turns, except a 45° right turn on the first crosswind leg.
C) Departure in any direction consistent with safety, after crossing the airport boundary.
35. PLT168 CFI
The angle of attack of a wing directly controls the
A) angle of incidence of the wing.
B) amount of airflow above and below the wing.
C) distribution of positive and negative pressure acting on the wing.
36. PLT190 CFI
When operating a gyroplane in conditions favorable to carburetor icing, the carburetor heat control should be
A) adjusted so the carburetor air temperature gauge indicates in the green arc.
B) ON when practicing power-off maneuvers such as autorotations but OFF at all other times.
C) OFF during takeoffs, approaches, and landings; other times, adjusted to keep carburetor air temperature in the green arc.

37. PLT304 CFI

During a ground launch, how is the airspeed of a glider increased?

- A) Raise the nose.
- B) Lower the nose.
- C) Increase speed of vehicle or winch.

38. PLT496 CFI

What would be the approximate tensile strength of a rope with a 1,000 pound tensile strength if a knot develops in it?

- A) 500 pounds.
- B) 800 pounds.
- C) 1,000 pounds.

39. PLT304 CFI

What could result if a glider pilot releases while in the low-tow position during an aerotow?

- A) Nose of the glider would tend to pitch up after release.
- B) Tow ring may strike and damage the glider after release.
- C) Glider may be forced into the towplane's wake turbulence.

40. PLT257 CFI

When flying into a strong headwind on a long glide back to the airport, the recommended speed to use is the

- A) best glide speed.
- B) minimum sink speed.
- C) best lift/drag speed plus half the estimated windspeed at the glider's flight altitude.

41. PLT161 CFI

While in Class E airspace in VFR conditions, what in-flight visibility is required when flying more than 1,200 feet AGL and at or above 10,000 feet MSL?

- A) 5 SM.
- B) 3 SM.
- C) 1 SM.

42. PLT430 CFI

What is the minimum altitude and flight visibility required for acrobatic flight?

- A) 1,500 feet AGL and 5 miles.
- B) 1,500 feet AGL and 3 miles.
- C) 3,000 feet AGL and 3 miles.

43. PLT238 CFI

At a constant velocity in airflow, a high aspect ratio wing will have (in comparison with a low aspect ratio wing)

- A) increased drag, especially at a low angle of attack.
- B) decreased drag, especially at a high angle of attack.
- C) increased drag, especially at a high angle of attack.

44. PLT074 CFI

(Refer to figure 17.) What load factor would be created if positive 30 feet per second gusts were encountered at 130 knots?

- A) 3.8.
- B) 3.0.
- C) 2.0.

45. PLT480 CFI

The tendency of an aircraft to develop forces which restore it to its original condition, when disturbed from a condition of steady flight, is known as

- A) stability.
- B) controllability.
- C) maneuverability.

46. PLT008 CFI

(Refer to figure 31.) What is the total landing distance over a 50-foot obstacle?

Temperature	15 °C
Pressure altitude	4,000 ft
Weight	3,000 lb
Headwind	22 kts

- A) 1,250 feet.
- B) 1,175 feet.
- C) 1,050 feet.

47. PLT305 CFI

Which type of flap creates the least change in pitching moment?

- A) Split.
- B) Fowler.
- C) Slotted.

48. PLT215 CFI

What should be the indication on the magnetic compass as you roll into a standard rate turn to the right from a south heading in the Northern Hemisphere?

- A) The compass will initially indicate a turn to the left.
- B) The compass will indicate a turn to the right, but at a faster rate than is actually occurring.
- C) The compass will remain on south for a short time, then gradually catch up to the magnetic heading of the airplane.

49. PLT253 CFI

Fuel injection systems, compared to carburetor systems, are generally considered to be

- A) just as susceptible to impact icing.
- B) more susceptible to evaporative icing.
- C) less susceptible to icing unless visible moisture is present.

50. PLT249 CFI

The main purpose of the mixture control is to

- A) increase the air supplied to the engine.
- B) adjust the fuel flow to obtain the proper air/fuel ratio.
- C) decrease the fuel supplied to the engine as the aircraft descends.

51. PLT351 CFI

The reason for variations in geometric pitch (twisting) along a propeller blade is that it

- A) prevents the portion of the blade near the hub to stall during cruising flight.
- B) permits a relatively constant angle of attack along its length when in cruising flight.
- C) permits a relatively constant angle of incidence along its length when in cruising flight.

52. PLT146 CFI

(Refer to figure 54.) The segmented circle indicates that the airport traffic pattern is

- A) left-hand for Rwy 17 and right-hand for Rwy 35.
- B) right-hand for Rwy 35 and right-hand for Rwy 9.
- C) left-hand for Rwy 35 and right-hand for Rwy 17.

53. PLT150 CFI

The recommended entry position to an airport traffic pattern is

- A) 45° to the base leg just below traffic pattern altitude.
- B) to enter 45° at the midpoint of the downwind leg at traffic pattern altitude.
- C) to cross directly over the airport at traffic pattern altitude and join the downwind leg.

54. PLT509 CFI

During a takeoff made behind a departing large jet airplane, the pilot can minimize the hazard of wingtip vortices by

- A) remaining below the jet's flightpath until able to turn clear of its wake.
- B) extending the takeoff roll and not rotating until well beyond the jet's rotation point.
- C) being airborne prior to reaching the jet's flightpath until able to turn clear of its wake.

55. PLT040 CFI
(Refer to figure 47.) Which altitude (box 1) is applicable to the vertical extent of the surface and shelf areas of this Class C airspace?
A) 3,000 feet AGL.
B) 3,000 feet above airport.
C) 4,000 feet above airport.
56. PLT161 CFI
Normally, the vertical limits of Class D airspace extend up to and including how many feet above the surface?
A) 2,500 feet.
B) 3,000 feet.
C) 4,000 feet.
57. PLT232 CFI
All experienced pilots have fallen prey to, or have been tempted by, one or more of these dangerous tendencies or behavior problems at some time in their career. Select the answer that best describes these tendencies.
A) Deficiencies in instrument skills and knowledge of aircraft systems or limitations.
B) Peer pressure, loss of situational awareness, and operating with inadequate fuel reserves.
C) Performance deficiencies due to stress from human factors, such as fatigue, illness, or emotional problems.
58. PLT014 CFI
While maintaining a magnetic heading of 060° and a true airspeed of 130 knots, the 150° radial of a VOR is crossed at 1137 and the 140° radial at 1145. The approximate time and distance to the station would be
A) 38 minutes and 82 NM.
B) 42 minutes and 91 NM.
C) 48 minutes and 104 NM.
59. PLT395 CFI
Which is a definition of the term 'crewmember'?
A) A person assigned to perform duty in an aircraft during flight time.
B) Any person assigned to duty in an aircraft during flight except a pilot or flight engineer.
C) Only a pilot, flight engineer, or flight navigator assigned to duty in an aircraft during flight time.
60. PLT432 CFI
Regulations concerning the operational control of a flight refer to
A) the specific duties of any required crewmember.

- B) exercising the privileges of pilot in command of an aircraft.
- C) exercising authority over initiating, conducting, or terminating a flight.

61. PLT388 CFI

Information recorded during normal operation by a required cockpit voice recorder in a passenger-carrying airplane

- A) may be erased only once each flight.
- B) may all be erased except the last 30 minutes.
- C) must be retained for 30 minutes after landing.

62. PLT418 CFI

The holder of a Ground Instructor Certificate with an advanced rating is authorized to provide

- A) a recommendation for an instrument rating knowledge test.
- B) ground training for any flight review or instrument proficiency check.
- C) ground training in aeronautical knowledge areas for any pilot certificate or rating.

63. PLT442 CFI

If recency of experience requirements for night flight are not met and official sunset is 1830, the latest time passengers may be carried is

- A) 1829.
- B) 1859.
- C) 1929.

64. PLT418 CFI

An applicant has failed a knowledge test for the second time. With training and an endorsement from an authorized instructor, when may the applicant apply for a retest?

- A) immediately.
- B) After 5 days.
- C) After 30 days.

65. PLT448 CFI

What action may be taken against a person whom the Administrator finds has cheated on a knowledge test?

- A) Any certificate or rating held by the person may be suspended or revoked.
- B) That person will be required to wait 24 months before taking another knowledge test.
- C) That person may be required to wait a maximum of 6 months before applying for any other certificate or rating.

66. PLT508 CFI

If an ATC transponder installed in an aircraft has not been tested, inspected, and found to comply with regulations within a specified period, what is the limitation on its use?

- A) Its use is not permitted.
- B) It may be used anywhere except in Class A and B airspace.
- C) It may be used for VFR flight but not for IFR flight.

67. PLT208 CFI

How long may an aircraft be operated after the emergency locator transmitter has been initially removed for maintenance?

- A) 90 days.
- B) 30 days.
- C) 7 days.

68. PLT372 CFI

An aircraft's last annual inspection was performed on July 12, this year. The next annual inspection will be due no later than

- A) July 13, next year.
- B) July 31, next year.
- C) 12 calendar months after the date shown on the Airworthiness Certificate.

69. PLT068 CFI

(Refer to figure 14.) How are Significant Weather Prognostic Charts best used by a pilot?

- A) For overall planning at all altitudes.
- B) For determining areas to avoid (freezing levels and turbulence).
- C) For analyzing current frontal activity and cloud coverage.

70. PLT072 CFI

Vertical visibility is shown on Terminal Aerodrome Forecasts (TAF) reports when the sky is

- A) overcast.
- B) obscured.
- C) partially obscured.

71. PLT286 CFI

Which weather chart depicts the conditions forecast to exist at a specific time in the future?

- A) Prognostic.
- B) Surface Analysis.
- C) Weather Depiction.

72. PLT071 CFI

The position of fronts and pressure systems (as of chart time) is best determined by referring to a

- A) Surface Analysis Chart.
- B) Radar Summary Chart.
- C) Weather Depiction Chart.

73. PLT495 CFI

What are the minimum requirements for the formation of a thunderstorm?

- A) Sufficient moisture and a lifting action.
- B) Sufficient moisture, an unstable lapse rate, and lifting action.
- C) Towering cumulus clouds, sufficient moisture, and a frontal zone.

74. PLT510 CFI

Which statement is true regarding high- or low-pressure systems?

- A) A high-pressure area or ridge is an area of rising air.
- B) A low-pressure area or trough is an area of rising air.
- C) A high-pressure area is a trough of descending air.

75. PLT206 CFI

An aircraft is flying at a constant power setting and constant indicated altitude. If the outside air temperature (OAT) decreases, true airspeed will

- A) decrease, and true altitude will decrease.
- B) increase, and true altitude will increase.
- C) increase, and true altitude will decrease.

76. PLT203 CFI

The average lapse rate in the troposphere is

- A) 2.0° C per 1,000 feet.
- B) 3.0° C per 1,000 feet.
- C) 5.4° C per 1,000 feet.

77. PLT021 CFI

(Refer to figure 32.) How should the 500-pound weight be shifted to balance the plank on the fulcrum?

- A) 10 inches to the left.
- B) 10 inches to the right.
- C) 30 inches to the right.

78. PLT018 CFI

(Refer to figure 25.) What would be the indicated stall speed in a 60° banked turn with the gear and flaps up?

- A) 110 KIAS.
- B) 117 KIAS.
- C) 121 KIAS.

79. PLT012 CFI

(Refer to figure 26.) Determine the takeoff distance required to clear a 50-foot obstacle.

Temperature	23 °C
Pressure altitude	3,000 ft
Weight	2,400 lb
Headwind	15 kts

- A) 653 feet.
- B) 718 feet.
- C) 754 feet.

80. PLT478 CFI

If the ground wire between the magneto and the ignition switch becomes disconnected, the most noticeable result will be that the engine

- A) will run very rough.
- B) cannot be started with the switch in the ON position.
- C) cannot be shut down by turning the switch to the OFF position.

81. PLT509 CFI

How does the wake turbulence vortex circulate around each wingtip?

- A) Inward, upward, and around each tip.
- B) Inward, upward, and counterclockwise.
- C) Outward, upward, and around each tip.

82. PLT113 CFI

If the certification category of an airplane is listed as 'utility,' it means the airplane is intended for which maneuvers?

- A) Any type of acrobatic maneuver.
- B) All nonacrobatic maneuvers plus limited acrobatics including spins.
- C) Any maneuver incident to normal flying except acrobatics or spins.

83. PLT447 CFI

A Third-Class Medical Certificate was issued on May 3 to a person over 40 years of age. To exercise the privileges of a Private Pilot Certificate, the medical certificate will be valid through

- A) May 3, 24 months later.
- B) May 31, 24 months later.
- C) May 31, 36 months later.

84. PLT448 CFI

A student pilot may not operate a balloon in initial solo flight unless that pilot has

- A) received a minimum of 5 hours' flight instruction in a balloon.
- B) a valid Student Pilot Certificate and logbook endorsement by an authorized flight instructor.

C) made at least 10 balloon flights under the supervision of an authorized flight instructor.

85. PLT511 CFI

What type weather is associated with an advancing warm front that has moist, unstable air?

- A) Stratiform clouds, lightning, steady precipitation.
- B) Cumuliform clouds, smooth air, steady precipitation.
- C) Cumuliform clouds, turbulent air, showery-type precipitation.

86. PLT127 CFI

What can a pilot expect when landing at an airport located in the mountains?

- A) Higher true airspeed and longer landing distance.
- B) Higher indicated airspeed and shorter landing distance.
- C) Lower true airspeed and longer landing distance.

87. PLT336 CFI

Which instrument provides the most pertinent information (primary) for pitch control in straight-and-level flight?

- A) Altimeter.
- B) Attitude indicator.
- C) Airspeed indicator.

88. PLT347 CFI

On a multiengine airplane, where the propellers rotate in the same direction, why is the loss of power on one engine more critical than the loss of power on the other engine?

- A) The corkscrew pattern of airflow from one propeller is less effective against the airflow from the critical engine.
- B) The torque reaction from operation of the critical engine is more severe around the vertical axis as well as the longitudinal axis.
- C) The asymmetric propeller thrust or P-factor results in the center of thrust from one engine being farther from the airplane centerline than the center of thrust from the other engine.

89. PLT161 CFI

All operations within Class C airspace must be

- A) in communications with the responsible ATC facility.
- B) on a flight plan filed prior to arrival or departure.
- C) in an aircraft equipped with a transponder with automatic altitude reporting capability.

90. PLT194 CFI

The most effective technique to use for detecting other aircraft at night is to

- A) turn the head and sweep the eyes rapidly over the entire visible region.
- B) avoid staring directly at the point where another aircraft is suspected to be flying.

C) avoid scanning the region below the horizon so as to avoid the effect of ground lights on the eyes.

91. PLT223 CFI

Which is true regarding the operation of a multiengine airplane with one engine inoperative?

- A) Banking toward the operating engine increases VMC.
- B) Banking toward the inoperative engine increases VMC.
- C) VMC is a designed performance factor which must be proven during type certification and will not change as long as the ball is centered with appropriate rudder pressure.

92. PLT022 CFI

Risk management, as part of the aeronautical decision making (ADM) process, relies on which features to reduce the risks associated with each flight?

- A) Application of stress management and risk element procedures.
- B) Situational awareness, problem recognition, and good judgment.
- C) The mental process of analyzing all information in a particular situation and making a timely decision on what action to take.

93. PLT194 CFI

Which technique should a student be taught to scan for traffic to the right and left during straight-and-level flight?

- A) Continuous sweeping of the windshield from right to left.
- B) Concentrate on relative movement detected in the peripheral vision area.
- C) Systematically focus on different segments of the sky for short intervals.

94. PLT295 CFI

During training flights, an instructor should interject realistic distractions to determine if a student can

- A) learn despite stressful conditions.
- B) maintain aircraft control while his/her attention is diverted.
- C) perform maneuvers using the integrated method of flight instruction.

95. PLT457 CFI

Prior to a first solo flight, the flight instructor is required to endorse the student's

- A) logbook.
- B) pilot certificate.
- C) logbook and pilot certificate.

96. PLT021 CFI

If the landing gear on an airplane moves forward during retraction, the total moment will

- A) increase.
- B) decrease.
- C) remain the same.

97. PLT021 CFI

If the nosewheel of an airplane moves aft during gear retraction, how would this aft movement affect the CG location of that airplane? It would

- A) cause the CG location to move aft.
- B) have no effect on the CG location.
- C) cause the CG location to move forward.

98. PLT238 CFI

(Refer to figure 21.) Which aircraft has the lowest aspect ratio?

- A) 2.
- B) 3.
- C) 4.

99. PLT238 CFI

(Refer to figure 21.) Consider only aspect ratio (other factors remain constant). Which aircraft will generate greatest lift?

- A) 1.
- B) 2.
- C) 3.

100. PLT237 CFI

Maximum gliding distance of an aircraft is obtained when

- A) parasite drag is the least.
- B) induced drag and parasite drag are equal.
- C) induced drag equals the coefficient of lift.

101. PLT170 CFI

What normally results from excessive airspeed on final approach?

- A) Bouncing.
- B) Floating.
- C) Ballooning.

102. PLT501 CFI

When soaring in the vicinity of mountain ranges, the greatest potential danger from vertical and rotor-type currents will usually be encountered on the

- A) leeward side when flying with the wind.
- B) leeward side when flying into the wind.
- C) windward side when flying into the wind.

103. PLT482 CFI
Which statement is true about instructors' critiques?
A) Instructors should rely on their personality to make a critique more acceptable.
B) A comprehensive critique should emphasize positive aspects of student performance.
C) Before students willingly accept their instructor's critique, they must first accept the instructor.
104. PLT482 CFI
A written test is said to be comprehensive when it
A) includes all levels of difficulty.
B) samples liberally whatever is being measured.
C) measures knowledge of the same topic in many different ways.
105. PLT482 CFI
Which is the main disadvantage of supply-type test items?
A) They cannot be graded with uniformity.
B) They are readily answered by guessing.
C) They are easily adapted to statistical analysis.
106. PLT482 CFI
A written test has validity when it
A) yields consistent results.
B) samples liberally whatever is being measured.
C) measures what it is supposed to measure.
107. PLT482 CFI
Which is one of the major difficulties encountered in the construction of multiple-choice test items?
A) Adapting the items to statistical item analysis.
B) Keeping all responses approximately equal in length.
C) Inventing distractors which will be attractive to students lacking knowledge or understanding.
108. PLT482 CFI
In a written test, which type of selection-type test items reduces the probability of guessing correct responses?
A) Essay.
B) Matching.
C) Multiple-choice.
109. PLT482 CFI
When an instructor critiques a student, it should always be
A) done in private.

- B) subjective rather than objective.
- C) conducted immediately after the student's performance.

110. PLT211 CFI

Practical tests for pilot certification are

- A) norm-referenced.
- B) criterion-referenced.
- C) evaluation-referenced.

111. PLT481 CFI

The objective of the Practical Test Standards (PTS) is to ensure the certification of pilots at a high level of performance and proficiency, consistent with

- A) safety.
- B) the time available.
- C) their abilities.

112. PLT482 CFI

During oral quizzing in a given lesson, effective questions should

- A) be brief and concise.
- B) provide answers that can be expressed in a variety of ways.
- C) divert the student's thoughts to subjects covered in previous lessons.

113. PLT232 CFI

Faulty performance due to student overconfidence should be corrected by

- A) increasing the standard of performance for each lesson.
- B) praising the student only when the performance is perfect.
- C) providing strong, negative evaluation at the end of each lesson.

114. PLT481 CFI

During the flight portion of a practical test, the examiner simulates complete loss of engine power by closing the throttle and announcing 'simulated engine failure'. What level of learning is being tested?

- A) Application.
- B) Correlation.
- C) Understanding.

115. PLT228 CFI

(Refer to figure 1.) Section D is titled:

- A) Content.
- B) Equipment.
- C) Instructor's Actions.

116. PLT295 CFI

Which statement is true concerning extraneous blocks of instruction during a course of training?

- A) They are usually necessary parts of the total objective.
- B) They detract from the completion of the final objective.
- C) They assist in the attainment of the lesson's objective.

117. PLT482 CFI

Which would more likely result in students becoming frustrated?

- A) Giving the students meaningless praise.
- B) Telling students their work is unsatisfactory with no explanation.
- C) Covering up instructor mistakes or bluffing when the instructor is in doubt.

118. PLT488 CFI

The first step in preparing a lecture is to

- A) research the subject.
- B) develop the main ideas or key points.
- C) establish the objective and desired outcome.

119. PLT295 CFI

Students who grow impatient when learning the basic elements of a task are those who

- A) are less easily discouraged than the unaggressive students.
- B) should have the preliminary training presented one step at a time with clearly stated goals for each step.
- C) should be advanced to the next higher level of learning and not held back by insisting that the immediate goal be reached before they proceed to the next level.

120. PLT227 CFI

Integrated flight instruction has many benefits, but the main objective is to

- A) develop the student's ability to fly the aircraft during inadvertent IMC.
- B) ensure the student is not overly dependent on instruments during VFR flight.
- C) help the student develop habit patterns for observance of and reference to flight instruments.

121. PLT470 CFI

Rotor blade flapping action is

- A) an undesirable reaction to changes in airspeed and blade angle of attack.
- B) an aerodynamic reaction to high speed flight and cannot be controlled by the pilot.
- C) a design feature permitting continual changes in the rotor blade angle of attack, compensating for dissymmetry of lift.

122. PLT199 CFI

During flight, if you apply cyclic control pressure which results in a decrease in pitch angle of the rotor blades at a position approximately 90° to your left, the rotor disc will tilt

- A) aft.
- B) left.
- C) right.

123. PLT470 CFI

Gyroplanes that use small wings will cause rotor drag to do what at higher cruise airspeeds?

- A) Increase.
- B) Decrease.
- C) Remain the same.

124. PLT470 CFI

Rotor torque is a concern in gyroplanes only during

- A) prerotation or clutch engagement.
- B) maneuvers requiring high rotor rpm.
- C) maximum performance climbs and go-arounds requiring higher engine rpm.

125. PLT244 CFI

Which may lead to a power push-over in a gyroplane?

- A) Low speed.
- B) Rotor force is removed.
- C) Decreasing power too quickly.

126. PLT472 CFI

A one-per-revolution vibration in a gyroplane indicates which condition?

- A) Rotor blades out of balance.
- B) One rotor blade out of track.
- C) Possible onset of retreating blade stall.

127. PLT149 CFI

Which is true concerning taxi procedures in a gyroplane?

- A) In ideal conditions, taxi speed should be limited to no faster than a brisk walk.
- B) Cyclic stick should be positioned slightly aft of neutral when taxiing.
- C) Rotor blades should not be turning when taxiing over a rough surface.

128. PLT208 CFI

Which pilot action will help reduce pilot induced oscillation in a gyroplane?

- A) Avoid flight at high speeds.
- B) Increase power if nose pitches down.

C) Prior to a climb, increase pitch attitude before increasing power.

129. PLT112 CFI

When landing a gyroplane in crosswind conditions, proper technique requires that the

- A) longitudinal axis be parallel to the runway.
- B) direction of motion and heading coincide with runway direction.
- C) lateral axis of the gyroplane be parallel to the gyroplane's direction of motion.

130. PLT222 CFI

In order to maintain level flight (laterally) as airspeed increases on climbout after takeoff in a gyroplane, the pilot will need to increase

- A) rudder pressure to the left.
- B) cyclic pressure to the right.
- C) rudder and cyclic pressure to the left.

131. PLT344 CFI

You may anticipate fog when the temperature-dew point spread is

- A) 15 °F or less and decreasing.
- B) 15 °F or more and increasing.
- C) 5 °F or less and decreasing

132. PLT470 CFI

The forward speed of a rotorcraft is restricted primarily by

- A) dissymmetry of lift.
- B) transverse flow effect.
- C) high-frequency vibrations.

133. PLT244 CFI

Most helicopters tend to drift to the right when hovering. What is done to counteract this?

- A) The mast is rigged slightly to the left.
- B) The direction of tail rotor thrust can be changed by using anti-torque pedals.
- C) The cyclic pitch system is rigged forward, and along with gyroscopic precession, this tendency is corrected.

134. PLT123 CFI

How does temperature and weight affect the Vne of a helicopter?

- A) Vne increases as temperature and weight increase.
- B) Vne decreases as temperature and weight increase.
- C) Vne decreases as temperature increases and weight decreases.

135. PLT035 CFI

As altitude increases, the VNE of most helicopters

- A) increases.
- B) decreases.
- C) remains the same.

136. PLT124 CFI

Performance of a helicopter can be determined by

- A) knowing the density altitude, gross weight, and surface wind.
- B) the formula π times the rotor diameter divided by the blade area.
- C) the highest altitude that can be maintained in a hover following liftoff.

137. PLT472 CFI

A high-frequency vibration in flight would most likely indicate potential trouble with

- A) the balance of the main rotor blades.
- B) a piston engine malfunction.
- C) worn parts in the main rotor system.

138. PLT471 CFI

What is the primary purpose of the freewheeling unit?

- A) It allows the engine to be started without driving the main rotor system.
- B) It provides disengagement of the engine from the rotor system for autorotation purposes.
- C) It provides speed reduction between the engine, main rotor system, and tail rotor system.

139. PLT125 CFI

During a flare autorotative descent and landing, additional right pedal is required to maintain heading after initial collective pitch is applied. This action is necessary because of

- A) gyroscopic precession.
- B) the reduction in rotor RPM.
- C) translating tendency of helicopters during autorotation.

140. PLT208 CFI

What action should be taken if the antitorque system fails during forward flight?

- A) Immediately apply additional throttle while slightly lowering the collective.
- B) Enter a normal autorotation by lowering the collective and rolling off the throttle.
- C) Immediately and smoothly apply aft cyclic.

141. PLT265 CFI

What action should be taken if ground resonance is encountered during a landing attempt?

- A) Attempt to make a takeoff regardless of RPM situation.

B) Close throttle immediately and raise collective pitch to dampen vibrations.

C) Make an immediate takeoff if RPM is in proper range; otherwise, close throttle, and lower collective pitch.

142. PLT217 CFI

The proper action to initiate a rapid deceleration is to apply

A) forward cyclic while raising the collective and applying right pedal.

B) left cyclic while raising the collective and applying left pedal.

C) aft cyclic while lowering the collective and applying right pedal.

143. PLT407 CFI

An applicant who is seeking a Student Pilot Certificate limited to helicopters is required to be at least how old?

A) 16 years.

B) 17 years.

C) 18 years.

144. PLT112 CFI

To taxi on the surface in a safe efficient manner, one should use the cyclic pitch to

A) control taxi speed.

B) maintain heading during crosswind conditions.

C) correct for drift during crosswind conditions.

145. PLT268 CFI

Which situation would require the highest power setting to hover?

A) Headed downwind in moderate windspeeds.

B) Headed crosswind in moderate windspeeds.

C) Over tall grass in zero wind conditions.