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Bank: (Light Sport Pilot)

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. PLT074 LSP

(Refer to figure 68.) The positive limit load factor is represented by the

- A) vertical dashed line from E to F.
- B) vertical solid line from D to G.
- C) horizontal dashed line from C to point E.

2. PLT241 LSP

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.

3. PLT019 LSP

(Refer to figure 24.) Determine the pressure altitude at an airport that is 1,386 feet MSL with an altimeter setting of 29.97.

- A) 1,341 feet MSL.
- B) 1,451 feet MSL.
- C) 1,562 feet MSL.

4. PLT132 LSP

What does the red line on an airspeed indicator represent?

- A) Maneuvering speed.
- B) Turbulent or rough-air speed.
- C) Never-exceed speed.

5. PLT023 LSP

Under what condition is indicated altitude the same as true altitude?

- A) If the altimeter has no mechanical error.
- B) When at sea level under standard conditions.
- C) When at 18,000 feet MSL with the altimeter set at 29.92.

6. PLT023 LSP

What is pressure altitude?

- A) The indicated altitude corrected for position and installation error.
- B) The altitude indicated when the barometric pressure scale is set to 29.92.
- C) The indicated altitude corrected for nonstandard temperature and pressure.

7. PLT251 LSP
Filling the fuel tanks after the last flight of the day is considered a good operating procedure because this will

- A) force any existing water to the top of the tank away from the fuel lines to the engine.
- B) prevent expansion of the fuel by eliminating airspace in the tanks.
- C) prevent moisture condensation by eliminating airspace in the tanks.

8. PLT253 LSP
To properly purge water from the fuel system of an aircraft equipped with fuel tank sumps and a fuel strainer quick drain, it is necessary to drain fuel from the

- A) fuel strainer drain.
- B) lowest point in the fuel system.
- C) fuel strainer drain and the fuel tank sumps.

9. PLT337 LSP
The pitot system provides impact pressure for which instrument?

- A) Altimeter.
- B) Vertical-speed indicator.
- C) Airspeed indicator.

10. PLT190 LSP
Which condition is most favorable to the development of carburetor icing?

- A) Any temperature below freezing and a relative humidity of less than 50 percent.
- B) Temperature between 32 and 50 °F and low humidity.
- C) Temperature between 20 and 70 °F and high humidity.

11. PLT190 LSP
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12. PLT253 LSP
On aircraft equipped with fuel pumps, when is the auxiliary electric driven pump used?

- A) All the time to aid the engine-driven fuel pump.
- B) In the event engine-driven fuel pump fails.
- C) Constantly except in starting the engine.

13. PLT478 LSP
One purpose of the dual ignition system on an aircraft engine is to provide for

- A) improved engine performance.
- B) uniform heat distribution.
- C) balanced cylinder head pressure.

14. PLT115 LSP
If a pilot suspects that the engine (with a fixed-pitch propeller) is detonating during climb-out after takeoff, the initial corrective action to take would be to

- A) lean the mixture.
- B) lower the nose slightly to increase airspeed.
- C) apply carburetor heat.

15. PLT478 LSP

The uncontrolled firing of the fuel/air charge in advance of normal spark ignition is known as

- A) combustion.
- B) pre-ignition.
- C) detonation.

16. PLT112 LSP

When taxiing an airplane with strong quartering tailwinds, which aileron position should be used?

- A) Neutral.
- B) Aileron down on the side from which the wind is blowing.
- C) Aileron up on the side from which the wind is blowing.

17. PLT064 LSP

(Refer to figure 66, area 2 and legend 1.) For information about the parachute jumping and glider operations at Silverwood Airport, refer to

- A) notes on the border of the chart.
- B) the Airport/Facility Directory.
- C) the Notices to Airmen (NOTAM) publication.

18. PLT509 LSP

What wind condition prolongs the hazards of wake turbulence on a landing runway for the longest period of time?

- A) Light quartering headwind.
- B) Direct tailwind.
- C) Light quartering tailwind.

19. PLT163 LSP

Sport Pilot minimum flight visibility for Class E airspace less than 10,000 feet mean sea level (MSL) is

- A) 2,000 feet horizontal.
- B) 3 statute miles.
- C) 3 nautical miles.

20. PLT161 LSP

Airspace at an airport with a part-time control tower is classified as Class D airspace only

- A) when the prevailing visibility is below 3 statute miles.
- B) when the associated control tower is in operation.
- C) when the associated Flight Service Station is in operation.

21. PLT116 LSP

The purpose of Military Training Routes, charted as VFR Military Training Routes (VR) and IFR Military Training Routes (IR) on sectional charts, is to ensure the greatest practical level of safety for all flight operations and to allow the military to conduct

- A) low altitude, high-speed training.
- B) radar instrument training.
- C) air-to-air refueling training.

22. PLT194 LSP

An ATC radar facility issues the following advisory to a pilot flying on a heading of 270°: `TRAFFIC 3 O`CLOCK, 2 MILES, EASTBOUND...` Where should the pilot look for this traffic?

- A) North.

- B) South.
- C) West.

23. PLT064 LSP

(Refer to figure 56 area 4.) What hazards to aircraft may exist in restricted areas such as R-5302B?

- A) Unusual, often invisible, hazards such as aerial gunnery or guided missiles.
- B) Military training activities that necessitate acrobatic or abrupt flight maneuvers.
- C) High volume of pilot training or an unusual type of aerial activity.

24. PLT064 LSP

(Refer to figure 60, point 6) The floor of the Class E airspace over the town of Commerce is

- A) 1,200 feet MSL.
- B) 700 feet AGL.
- C) 1,200 feet AGL.

25. PLT116 LSP

Guy wires, which support antenna towers, can extend horizontally; therefore, the towers should be avoided horizontally by at least

- A) 2,000 feet horizontally.
- B) 300 feet horizontally.
- C) 1,000 feet horizontally.

26. PLT445 LSP

How should an aircraft preflight inspection be accomplished for the first flight of the day?

- A) Quick walk around with a check of gas and oil.
- B) Any sequence as determined by the pilot-in-command.
- C) Thorough and systematic means recommended by the manufacturer.

27. PLT122 LSP

Consistent adherence to approved checklists is a sign of a

- A) disciplined and competent pilot.
- B) pilot who lacks the required knowledge.
- C) low-time pilot.

28. PLT127 LSP

Density altitude, and its effect on landing performance, is defined by

- A) pressure altitude and ambient temperature.
- B) headwind and landing weight.
- C) humidity and braking friction forces.

29. PLT219 LSP

Name the four fundamentals involved in maneuvering an aircraft.

- A) Power, pitch, bank, and trim.
- B) Thrust, lift, turns, and glides.
- C) Straight-and-level flight, turns, climbs, and descents.

30. PLT441 LSP

The pilot in command is responsible for ensuring that each person on board applicable U. S. registered aircraft is briefed and instructed on how and when to

- A) fasten and unfasten their seat belt and shoulder harness.
- B) adjust their seat.
- C) operate the fire extinguisher.

31. PLT477 LSP

The direct cause of every stall is excessive

- A) angle of attack.
- B) density altitude.
- C) upward vertical velocity.

32. PLT103 LSP

What is the antidote when a pilot has the hazardous attitude of `Invulnerability` ?

- A) It can not be that bad.
- B) It could happen to me.
- C) It will not happen to me.

33. PLT099 LSP

The most effective method of scanning for other aircraft for collision avoidance during daylight hours is to use

- A) regularly spaced concentration on the 3-, 9-, and 12-o'clock positions.
- B) a series of short, regularly spaced eye movements to search each 10-degree sector.
- C) peripheral vision by scanning small sectors and utilizing offcenter viewing.

34. PLT200 LSP

True course measurements on a Sectional Aeronautical Chart should be made at a meridian near the midpoint of the course because the

- A) values of isogonic lines change from point to point.
- B) angles formed by isogonic lines and lines of latitude vary from point to point.
- C) angles formed by lines of longitude and the course line vary from point to point.

35. PLT064 LSP

(Refer to figure 57, area 7.) The airspace overlying Mc Kinney (TKI) is controlled from the surface to

- A) 700 feet AGL.
- B) 2,900 feet MSL.
- C) 2,500 feet MSL.

36. PLT078 LSP

For a complete listing of information provided in an Airport/Facility Directory (A/FD) and how the information may be decoded, refer to the

- A) "Directory Legend Sample" located in the front of each A/FD.
- B) Aeronautical Information Manual (AIM).
- C) legend on sectional, VFR terminal area, and world aeronautical charts.

37. PLT377 LSP

How long does the Airworthiness Certificate of an aircraft remain valid?

- A) As long as the aircraft has a current Registration Certificate.
- B) Indefinitely, unless the aircraft suffers major damage.
- C) As long as the aircraft is maintained and operated as required by Federal Aviation Regulations.

38. PLT378 LSP

May a pilot operate an aircraft that is not in compliance with an Airworthiness Directive (AD)?

- A) Yes, AD's are only voluntary.
- B) Yes, if allowed by the AD.
- C) Yes, under VFR conditions only.

39. PLT430 LSP

Except when necessary for takeoff or landing, what is the minimum safe altitude for a pilot to operate an aircraft anywhere?

- A) An altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface.
- B) An altitude of 500 feet above the surface and no closer than 500 feet to any person, vessel, vehicle, or structure.
- C) An altitude of 500 feet above the highest obstacle within a horizontal radius of 1,000 feet.

40. PLT366 LSP

How many days after an accident is a report required to be filed with the nearest NTSB field office?

- A) 2.
- B) 7.
- C) 10.

41. PLT495 LSP

Thunderstorms which generally produce the most intense hazard to aircraft are

- A) squall line thunderstorms.
- B) air mass thunderstorms.
- C) warm front thunderstorms.

42. PLT495 LSP

What conditions are necessary for the formation of thunderstorms?

- A) High humidity, lifting force, and unstable conditions.
- B) High humidity, high temperature, and cumulus clouds.
- C) Lifting force, moist air, and extensive cloud cover.

43. PLT313 LSP

Problems caused by overloading an aircraft include

- A) reduced climb rate, excessive structural loads, and shortened cruising range.
- B) increased service ceiling, increased angle of climb, and increased cruising speed.
- C) slower takeoff speed, increased maneuverability, and shorter takeoff roll.

44. PLT267 LSP

The term `weigh-off` means to determine the

- A) static equilibrium of the balloon as loaded for flight.
- B) amount of gas required for an ascent to a preselected altitude.
- C) standard weight and balance of the balloon.

45. PLT251 LSP

How should a balloon fuel system be checked for leaks prior to flight?

- A) Listen and smell.
- B) Check all connections with a lighted match.
- C) Cover all connections and tubing with soapy water.

46. PLT253 LSP

In addition to the required documents, what carry-on equipment should be accounted for during preflight?

- A) Flotation gear.
- B) Emergency locator transmitter.
- C) Two means of burner ignition.

47. PLT254 LSP

All fuel tanks should be fired during preflight to determine

- A) the burner pressure and condition of the valves.
- B) that the pilot light functions properly on each tank.
- C) if there are any leaks in the tank.

48. PLT254 LSP

On cold days, it may be necessary to preheat the propane tanks because

- A) the temperature of the liquid propane controls the burner pressure during combustion.
- B) there may be ice in the lines to the burner.
- C) the propane needs to be thawed from a solid to a liquid state.

49. PLT251 LSP

If ample propane is available, within which temperature range will propane vaporize sufficiently to provide enough pressure for burner operation during flight?

- A) 0 to 30 °F.
- B) 10 to 30 °F.
- C) 30 to 90 °F.

50. PLT254 LSP

While in flight, ice begins forming on the outside of the fuel tank in use. This would most likely be caused by

- A) water in the fuel.
- B) a leak in the fuel line.
- C) vaporized fuel instead of liquid fuel being drawn from the tank into the main burner.

51. PLT393 LSP

A balloon flight through a restricted area is

- A) permitted at certain times, but only with prior permission by the appropriate authority.
- B) permitted anytime, but caution should be exercised because of high-speed military aircraft.
- C) never permitted.

52. PLT184 LSP

When landing a free balloon, what should the occupants do to minimize landing shock?

- A) Be seated on the floor of the basket.
- B) Stand with knees slightly bent, in the center of the gondola, facing the direction of movement.
- C) Stand back-to-back and hold onto the load ring.

53. PLT183 LSP

What is a potential hazard when climbing at maximum rate?

- A) The envelope may collapse.
- B) Deflation ports may be forced open.
- C) The rapid flow of air may extinguish the burner and pilot light.

54. PLT219 LSP

It may be possible to make changes in the direction of flight in a hot air balloon by

- A) flying a constant atmospheric pressure gradient.
- B) operating at different flight altitudes.
- C) operating above the friction level, if there is no gradient wind.

55. PLT125 LSP

What is a hazard of rapid descents?

- A) Wind shear can cavitate one side of the envelope, forcing air out of the mouth.
- B) The pilot light cannot remain lit with the turbulent air over the basket.
- C) Aerodynamic forces may collapse the envelope.

56. PLT130 LSP

In a balloon, best fuel economy in level flight can be accomplished by

- A) riding the haze line in a temperature inversion.
- B) short blasts of heat at high frequency.
- C) long blasts of heat at low frequency.

57. PLT184 LSP

When landing a free balloon, what should the occupants do to minimize landing shock?

- A) Be seated on the floor of the basket.
- B) Stand with knees slightly bent, in the center of the gondola, facing the direction of movement.
- C) Stand back-to-back and hold onto the load ring.

58. PLT041 LSP

(Refer to figure 58, area 1.) A balloon launched at Flying S Airport drifts southward towards the lighted obstacle. If the altimeter was set to the current altimeter setting upon launch, what should it indicate if the balloon is to clear the obstacle at 500 feet above the top?

- A) 1,531 feet MSL.
- B) 1,809 feet MSL.
- C) 3,649 feet MSL.

59. PLT012 LSP

(Refer to figure 66, area 2.) If a balloon is launched at Ranch Aero (Pvt) Airport with a reported wind from 220° at 5 knots, what should be its approximate position after 2 hours of flight?

- A) Near Hackney (Pvt) Airport.
- B) Crossing the railroad southwest of Granite Airport.
- C) 3-1/2 miles southwest of Rathdrum.

60. PLT445 LSP

Which preflight action is specifically required of the pilot prior to each flight?

- A) Check the aircraft logbooks for appropriate entries.
- B) Become familiar with all available information concerning the flight.
- C) Review wake turbulence avoidance procedures.

61. PLT257 LSP

The best speed to use for a glide is one that will result in the greatest glide distance for a given amount of

- A) altitude.
- B) fuel.
- C) drag.

62. PLT012 LSP

(Refer to figure 59.) If a glider is launched over Barnes County Airport (area 6) with sufficient altitude to glide to Jamestown Airport (area 4), how long will it take for the flight at an average of 40 MPH groundspeed?

- A) 20 minutes.
- B) 27 minutes.
- C) 48 minutes.

63. PLT012 LSP

(Refer to figure 60, area 1.) A glider is launched over Caddo Mills Airport with sufficient altitude to glide to Airpark East Airport, south of Caddo Mills. How long will it take for the flight at an average of 35 MPH groundspeed?

- A) 31 minutes.
- B) 27 minutes.
- C) 25 minutes.

64. PLT064 LSP

(Refer to figure 59, area 1.) Identify the airspace over Lowe Airport.

- A) Class G airspace - surface up to but not including 18,000 feet MSL.
- B) Class G airspace - surface up to but not including 700 feet MSL, Class E airspace - 700 feet to 14,500 feet MSL.
- C) Class G airspace - surface up to but not including 1,200 feet AGL, Class E airspace - 1,200 feet AGL up to but not including 18,000 feet MSL.

65. PLT161 LSP

Unless otherwise specified, Federal Airways include that Class E airspace extending upward from

- A) 700 feet above the surface up to and including 17,999 feet MSL.
- B) 1,200 feet above the surface up to and including 17,999 feet MSL.
- C) the surface up to and including 18,000 feet MSL.

66. PLT017 LSP

(Refer to figure provided.) What approximate lift/drag ratio will the glider attain at 68 MPH in still air?

- A) 10.5:1.
- B) 21.7:1.
- C) 28.5:1.

67. PLT222 LSP

What corrective action should the sailplane pilot take during takeoff if the towplane is still on the ground and the sailplane is airborne and drifting to the left?

- A) Crab into the wind by holding upwind (right) rudder pressure.
- B) Crab into the wind so as to maintain a position directly behind the towplane.
- C) Establish a right wing low drift correction to remain in the flightpath of the towplane.

68. PLT511 LSP

During which period is a sea breeze front usually most suitable for soaring flight?

- A) Shortly after sunrise.
- B) During the middle of the morning.
- C) During the afternoon.

69. PLT120 LSP

Which is considered to be the most hazardous condition when soaring in the vicinity of thunderstorms?

- A) Static electricity.
- B) Lightning.
- C) Wind shear and turbulence.

70. PLT125 LSP

An airship descending through a steep temperature inversion will

- A) show no change in superheat as altitude is lost.
- B) show a decrease in superheat as altitude is lost.
- C) become progressively lighter, thus becoming increasingly more difficult to drive down.

71. PLT012 LSP

(Refer to figure 60.) An airship passes over the Quitman VOR-DME area 2) at 0940 and then over the intersection of the powerline and Victor 114 at 0948. Approximately what time should the flight arrive over the Bonham VORTAC (area 3)?

- A) 1109.
- B) 1117.
- C) 1138.

72. PLT346 LSP

The steering bars

- A) are used during taxi operations with the parachute stowed.
- B) control the outboard trailing edge of the parachute.
- C) control the main landing gear brakes.

73. PLT114 LSP

One of the functions of the wing's crossbar is to

- A) hold the wings open.
- B) provide surface to grip and control the aircraft.
- C) provide an attachment point for the carriage.

74. PLT147 LSP

(Refer to figure provided.) While on final approach to a runway equipped with a standard 2-bar VASI, the lights appear as shown by illustration D. This means that the aircraft is

- A) above the glide slope.
- B) below the glide slope.
- C) on the glide slope.

75. PLT123 LSP

Why should gyroplane operations within the cross-hatched portion of a Height vs. Velocity chart be avoided?

- A) The rotor RPM may build excessively high if it is necessary to flare at such low altitudes.
- B) Sufficient airspeed may not be available to ensure a safe landing in case of an engine failure.
- C) Turbulence near the surface can dephase the blade dampers causing geometric unbalanced conditions on the rotor system.

76. PLT123 LSP

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77. PLT011 LSP

(Refer to figure 40.) Determine the total takeoff distance required for a gyroplane to clear a 50-foot obstacle if the temperature is 95 °F and the pressure altitude is 1,700 feet.

- A) 1,825 feet.
- B) 1,910 feet.
- C) 2,030 feet.

78. PLT011 LSP

(Refer to figure 40.) Determine the total landing distance to clear a 50-foot obstacle in a gyroplane. The outside air temperature (OAT) is 75°F and the pressure altitude at the airport is 2,500 feet.

- A) 521 feet.
- B) 525 feet.
- C) 529 feet.

79. PLT373 LSP

The principal factor limiting the never-exceed speed (VNE) of a gyroplane is

- A) turbulence and altitude.
- B) blade-tip speed, which must remain below the speed of sound.
- C) lack of sufficient cyclic stick control to compensate for dissymmetry of lift or retreating blade stall, depending on which occurs first.

80. PLT149 LSP

Select the true statement concerning gyroplane taxi procedures.

- A) Taxi speed should be limited to no faster than a brisk walk in ideal conditions.
- B) The cyclic stick should be held in the neutral position at all times.
- C) The cyclic stick should be held slightly aft of neutral at all times.

81. PLT149 LSP

What precaution should be taken while taxiing a gyroplane?

- A) The cyclic stick should be held in the neutral position at all times.
- B) Avoid abrupt control movements when blades are turning.
- C) The cyclic stick should be held slightly aft of neutral at all times.

82. PLT259 LSP

If ground resonance is experienced during rotor spin-up, what action should you take?

- A) Taxi to a smooth area.
- B) Make a normal takeoff immediately.
- C) Close the throttle and slowly raise the spin-up lever.

83. PLT149 LSP

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- A) Avoid abrupt control movements when blades are turning.
- B) The cyclic stick should be held in the neutral position at all times.
- C) The cyclic stick should be held slightly aft of neutral at all times.

84. PLT149 LSP

Select the true statement concerning gyroplane taxi procedures.

- A) Avoid abrupt control movements when blades are turning.
- B) The cyclic stick should be held in the neutral position at all times.
- C) The cyclic stick should be held slightly aft of neutral at all times.

85. PLT470 LSP
- During the transition from pre-rotation to flight, all rotor blades change pitch
- A) simultaneously to the same angle of incidence.
 - B) simultaneously but to different angles of incidence.
 - C) in sequence to the same angle of incidence.

86. PLT260 LSP
- During the transition from pre-rotation to flight, all rotor blades change pitch
- A) simultaneously to the same angle of incidence.
 - B) simultaneously but to different angles of incidence.
 - C) to the same degree at the same point in the cycle of rotation.