

03/15/2007

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://av-info.faa.gov/data/computertesting/supplements.pdf>

1. H921 LSP
(Refer to figure 68.) The horizontal dashed line from point C to point E represents the
A) ultimate load factor.
B) positive limit load factor.
C) airspeed range for normal operations.

2. H914 LSP
What must a pilot be aware of as a result of ground effect?
A) Wingtip vortices increase creating wake turbulence problems for arriving and departing aircraft.
B) Induced drag decreases; therefore, any excess speed at the point of flare may cause considerable floating.
C) A full stall landing will require less up elevator deflection than would a full stall when done free of ground effect.

3. H912 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.

4. H917 LSP
An airplane said to be inherently stable will
A) be difficult to stall.
B) require less effort to control.
C) not spin.

5. H919 LSP
The angle of attack at which an airfoil stalls will

- A) increase if the CG is moved forward.
- B) remain the same regardless of gross weight.
- C) change with an increase in gross weight.

6. J13 LSP

Entries into traffic patterns while descending create specific collision hazards and

- A) should be avoided.
- B) should be used whenever possible.
- C) are illegal.

7. J23 LSP

If faced with an emergency where Air Traffic Control (ATC) assistance is desired and not already in contact, which frequency can be used to establish communications?

- A) 121.5 MHz.
- B) 122.5 MHz.
- C) 128.725 MHz.

8. J14 LSP

During departure, when visual separation is employed by Air Traffic Control (ATC), traffic is no longer a factor when

- A) the other aircraft turns away or is on a diverging course.
- B) visual contact with the other aircraft is lost.
- C) the other aircraft is passed.

9. H903 LSP

What effect, if any, does high humidity have on aircraft performance?

- A) It increases performance.
- B) It decreases performance.
- C) It has no effect on performance.

10. H942 LSP

What effect does an uphill runway slope have on takeoff performance?

- A) Increases takeoff speed.
- B) Increases takeoff distance.
- C) Decreases takeoff distance.

11. H927 LSP

An electrical system failure (battery and alternator) occurs during flight. In this situation, you would

A) experience avionics equipment failure.

B) probably experience failure of the engine ignition system, fuel gauges, aircraft lighting system, and avionics equipment.

C) probably experience engine failure due to the loss of the engine-driven fuel pump and also experience failure of the radio equipment, lights, and all instruments that require alternating current.

12. H931 LSP

What does the red line on an airspeed indicator represent?

A) Maneuvering speed.

B) Turbulent or rough-air speed.

C) Never-exceed speed.

13. H931 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.

14. H931 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.

15. H931 LSP

What is absolute altitude?

A) The altitude read directly from the altimeter.

B) The vertical distance of the aircraft above the surface.

C) The height above the standard datum plane.

16. H931 LSP

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.

17. H927 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.

18. H927 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.

19. H931 LSP

The pitot system provides impact pressure for which instrument?

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

20. H931 LSP

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.

21. H927 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.

22. H927 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.

23. H928 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.

24. H928 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.

25. H928 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.

26. H928 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.

27. H944 LSP

What effect does high density altitude, as compared to low density altitude, have on propeller efficiency and why?

A) Efficiency is increased due to less friction on the propeller blades.

B) Efficiency is reduced because the propeller exerts less force at high density altitudes than at low density altitudes.

C) Efficiency is reduced due to the increased force of the propeller in the thinner air.

28. J03 LSP

An airport's rotating beacon operated during daylight hours indicates

A) there are obstructions on the airport.

B) that weather at the airport located in Class D airspace is below basic VFR weather minimums.

C) the Air Traffic Control tower is not in operation.

29. J03 LSP

A below glide slope indication from a tri-color VASI is a

A) red light signal.

- B) pink light signal.
- C) green light signal.

30. J05 LSP

(Refer to figure 62.) That portion of the runway identified by the letter A may be used for

- A) landing.
- B) taxiing and takeoff.
- C) taxiing and landing.

31. H516 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.

32. B08 LSP

Which is the correct traffic pattern departure procedure to use at a noncontrolled airport?

- A) Depart in any direction consistent with safety, after crossing the airport boundary.
- B) Make all turns to the left.
- C) Comply with any FAA traffic pattern established for the airport.

33. J34 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.

34. J27 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.

35. H975 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.

36. B08 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.

37. J10 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.

38. J11 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.

39. J09 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.

40. J37 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.

41. J29 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.

42. H935 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.

43. H935 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.

44. H942 LSP

Climb performance depends upon the

- A) reserve power or thrust.
- B) maximum L/D ratio.
- C) cruise power setting.

45. H973 LSP

To scan properly for traffic, a pilot should

- A) slowly sweep the field of vision from one side to the other at intervals.
- B) concentrate on any peripheral movement detected.
- C) use a series of short, regularly spaced eye movements that bring successive areas of the sky into the central visual field.

46. H942 LSP

Maximum endurance is obtained at the point of minimum power to maintain the aircraft

- A) in steady, level flight.
- B) in a long range descent.
- C) at its slowest possible indicated airspeed.

47. J21 LSP

Pilots who become apprehensive for their safety for any reason should

- A) request assistance immediately.

B) reduce their situational awareness.

C) change their mindset.

48. H946 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.

49. H533 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.

50. H935 LSP

To avoid missing important steps, always use the

A) appropriate checklists.

B) placarded airspeeds.

C) airworthiness certificate.

51. B11 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.

52. H911 LSP

The direct cause of every stall is excessive

A) angle of attack.

B) density altitude.

C) upward vertical velocity.

53. H946 LSP

The most critical conditions of takeoff performance are the result of some combination of high gross weight, altitude, temperature, and

A) unfavorable wind.

B) obstacles surrounding the runway.

C) powerplant systems.

54. J27 LSP

The greatest vortex strength occurs when the generating aircraft is

A) light, dirty, and fast.

B) heavy, dirty, and fast.

C) heavy, clean, and slow.

55. H945 LSP

When range and economy of operation are the principal goals, the pilot must ensure that the airplane will be operated at the recommended

A) specific endurance.

B) long-range cruise performance.

C) equivalent airspeed.

56. L05 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.

57. J31 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.

58. H985 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.

59. J37 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.

60. J11 LSP

The Federal Aviation Administration publication that provides the aviation community with basic flight information and Air Traffic Control procedures for use in the National Airspace System of the United States is the

A) Aeronautical Information Manual (AIM).

B) Airport/Facility Directory (A/FD).

C) Advisory Circular Checklist (AC 00-2).

61. H966 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.

62. H966 LSP

NOTAM-Ls (local NOTAMS) include items of a local nature. NOTAM-Ls are maintained at each Flight Service Station (FSS) for facilities in their area only. NOTAM-L information for other FSS areas must be specifically requested from the FSS

A) that has responsibility for the airport concerned.

B) with which the pilot communicates.

C) where the flight plan is filed.

63. A108 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.

64. A14 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.

65. B08 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.

66. G13 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.

67. H960 LSP

What should pilots state initially when telephoning a weather briefing facility for preflight weather information?

- A) Tell the number of occupants on board.
- B) Identify themselves as pilots.
- C) State their total flight time.

68. I30 LSP

Thunderstorms which generally produce the most intense hazard to aircraft are

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

69. I30 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.

70. H102 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.

71. O30 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.

72. H401 LSP

The lifting forces which act on a hot air balloon are primarily the result of the interior air temperature being

- A) greater than ambient temperature.
- B) less than ambient temperature.
- C) equal to ambient temperature.

73. O30 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.

74. B08 LSP

A steady green light signal directed from the control tower to an aircraft in flight is a signal that the pilot

- A) is cleared to land.
- B) should give way to other aircraft and continue circling.
- C) should return for landing.

75. H931 LSP

If it is necessary to set the altimeter from 29.15 to 29.85, what change occurs?

- A) 70-foot increase in indicated altitude.
- B) 70-foot increase in density altitude.
- C) 700-foot increase in indicated altitude.

76. H427 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.

77. O220 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.

78. H404 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.

79. H407 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.

80. O220 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.

81. O220 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.

82. O220 LSP

Burner efficiency of a hot air balloon decreases approximately what percent for each 1,000 feet above MSL?

- A) 4 percent.
- B) 8 percent.
- C) 15 percent.

83. J09 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.

84. H415 LSP
On a balloon equipped with a blast valve, the blast valve is used for
A) climbs and descents only.
B) altitude control.
C) emergencies only.

85. O265 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.

86. O30 LSP
What causes false lift which sometimes occurs during launch procedures?
A) Closing the maneuvering vent too rapidly.
B) Excessive temperature within the envelope.
C) Venturi effect of the wind on the envelope.

87. H418 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.

88. H418 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.

89. H418 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.

90. H415 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.

91. O265 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.

92. J37 LSP

(Refer to figure 56, area 4.) A balloon launched at the town of Edenton drifts northeasterly along the railroad. What minimum altitude must it maintain to clear all of the obstacles in the vicinity of Hertford by at least 500 feet?

- A) 805 feet MSL.
- B) 1,000 feet MSL.
- C) 1,015 feet MSL.

93. J37 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.

94. J37 LSP

(Refer to figure 57, area 4.) The airspace directly overlying Fort Worth Meacham is

- A) Class B airspace to 10,000 feet MSL.
- B) Class C airspace to 5,000 feet MSL.
- C) Class D airspace to 3,200 feet MSL.

95. J37 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.
96. J37 LSP
(Refer to figure 59, area 6.) The airspace overlying and within 5 miles of Barnes County Airport is
A) Class D airspace from the surface to the floor of the overlying Class E airspace.
B) Class E airspace from the surface to 1,200 feet MSL.
C) Class G airspace from the surface to 700 feet AGL.
97. J37 LSP
(Refer to figure 57, area 8.) What minimum altitude is required to fly over the Cedar Hill TV towers in the congested area south of NAS Dallas?
A) 2,555 feet MSL.
B) 3,449 feet MSL.
C) 3,349 feet MSL.
98. J37 LSP
(Refer to figure 26, area 8.) What minimum altitude is required to fly over the Cedar Hill TV towers in the congested area south of NAS Dallas?
A) 2,555 feet MSL.
B) 3,449 feet MSL.
C) 3,349 feet MSL.
99. H982 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.
100. B07 LSP
The person directly responsible for the pre-launch briefing of passengers for a flight is the
A) safety officer.
B) pilot in command.

C) ground crewmember.

101. B07 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.

102. I23 LSP

What condition does a rising barometer indicate for balloon operations?

- A) Decreasing clouds and wind.
- B) Chances of thunderstorms.
- C) Approaching frontal activity.

103. O220 LSP

What constitutes the payload of a balloon?

- A) Total gross weight.
- B) Total weight of passengers, cargo, and fuel.
- C) Weight of the aircraft and equipment.

104. H536 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.

105. H239 LSP

The positive three-step process in the exchange of flight controls between pilots includes these verbal steps: (1) You have the flight controls, (2) I have the flight controls and (3)

- A) You have the flight controls.
- B) I have the aircraft.
- C) I have the flight controls.

106. H995 LSP

Haze creates which of the following atmospheric illusions?

- A) Being at a greater distance from the runway.
- B) Being at a closer distance from the runway.

C) Haze creates no atmospheric illusions.

107. H1116 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.

108. H1116 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.

109. J37 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.

110. A66 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.

111. J13 LSP

You have just landed at a towered airport and the tower tells you to contact ground control when clear of the runway. You are considered clear of the runway when

- A) all parts of the aircraft have crossed the hold line.
- B) the aircraft cockpit is clear of the hold line.
- C) the tail of the aircraft is clear of the runway edge.

112. H1041 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.

113. I35 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.

114. I35 LSP

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

- A) Shortly after sunrise.
- B) During the early forenoon.
- C) During the afternoon.

115. P01 LSP

Under which condition will an airship float in the air?

- A) When buoyant force equals horizontal equilibrium existing between propeller thrust and airship drag.
- B) When buoyant force is less than the difference between airship weight and the weight of the air volume being displaced.
- C) When buoyant force equals the difference between airship weight and the weight of the air volume being displaced.

116. P04 LSP

The pressure height of an airship is the altitude at which

- A) the airship would be unable to gain more altitude.
- B) gas pressure would reach 3 inches of water.
- C) the ballonet(s) would be empty.

117. P11 LSP

If an airship should experience failure of both engines during flight and neither engine can be restarted, what initial immediate action must the pilot take?

- A) The airship must be driven down to a landing before control and envelope shape are lost.

B) The emergency auxiliary power unit must be started for electrical power to the airscoop blowers so that ballonnet inflation can be maintained.

C) Immediate preparations to operate the airship as a free balloon are necessary.

118. P01 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.

119. P01 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.

120. P01 LSP

During flight in an airship, when is vertical equilibrium established?

A) When buoyancy is greater than airship weight.

B) When buoyancy equals airship weight.

C) When buoyancy is less than airship weight.

121. P01 LSP

During flight in an airship, when is vertical equilibrium established?

A) When buoyancy is greater than airship weight.

B) When buoyancy equals airship weight.

C) When buoyancy is less than airship weight.

122. H983 LSP

(Refer to figure 58.) An airship crosses over Minot VORTAC (area 1) at 1056 and over the creek 8 nautical miles south-southeast on Victor 15 at 1108. What should be the approximate position on Victor 15 at 1211?

A) Over Lake Nettie National Wildlife Refuge.

B) Crossing the road east of Underwood.

C) Over the powerlines east of Washburn Airport.

123. H981 LSP

(Refer to figure 58, area 2.) Which airport is located at approximately 47° 39 minutes 30 seconds N latitude and 100° 53 minutes 00 seconds W longitude?

- A) Linrud.
- B) Crooked Lake.
- C) Johnson.

124. H983 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.

125. P04 LSP

The maximum altitude that a rigid airship can reach (under a given atmospheric condition) and then return safely to the surface is determined by

- A) the disposable load.
- B) ballonnet capacity.
- C) pressure altitude.

126. P04 LSP

An unbalanced condition of an airship in flight must be overcome by

- A) valving air from the ballonets.
- B) valving gas from the envelope.
- C) a negative or a positive dynamic force.

127. H940 LSP

Which items are included in the empty weight of an aircraft?

- A) Unusable fuel and undrainable oil.
- B) Only the airframe, powerplant, and optional equipment.
- C) Full fuel tanks and engine oil to capacity.

128. H09 LSP

An electrical system failure (battery and alternator) occurs in a magneto equipped aircraft during flight. In this situation, you would

- A) probably experience engine failure due to the loss of the engine-driven fuel pump and also experience failure of the radio equipment, lights, and all instruments that require alternating current.
- B) probably experience failure of the engine ignition system, fuel gauges, aircraft lighting system, and avionics equipment.
- C) experience avionics equipment failure.

129. H07 LSP

One purpose of the dual ignition system on a two-cycle engine is to provide for

- A) system redundancy in the ignition system.
- B) uniform heat distribution.
- C) balanced cylinder head pressure.

130. J13 LSP

(Refer to figure 64.) The traffic patterns indicated in the segmented circle have been arranged to avoid flights over an area to the

- A) south of the airport.
- B) north of the airport.
- C) southeast of the airport.

131. H22 LSP

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

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

132. H22 LSP

On some trikes, the hang point is part of

- A) a variable trim arrangement that allows the pilot to adjust the aircraft center of gravity during flight to obtain the most favorable aircraft performance.
- B) an adjustable trim arrangement that allows the pilot to adjust the aircraft center of gravity during flight to obtain the most favorable aircraft performance.
- C) an adjustable trim arrangement that allows the center of gravity to shift fore and aft along the wing's keel.

133. H22 LSP

Which aircraft component ensures the wing has a pitch-up tendency?

- A) Keel pocket.
- B) Luff lines.
- C) Washout rod.

134. J03 LSP

(Refer to figure 65.) 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.

135. H765 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.

136. H762 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.

137. H781 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.

138. H780 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.

139. H796 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.

140. H796 LSP

If the pilot experiences ground resonance, and the rotor r.p.m. is not sufficient for flight,

A) open the throttle full and liftoff.

B) apply the rotor brake and stop the rotor as soon as possible.

C) attempt to takeoff at that power setting.

141. H796 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.

142. H796 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.

143. H766 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.

144. H766 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.

145. H766 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.

146. H766 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.

147. H766 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.

148. H777 LSP

(Refer to figure 36.)

| GIVEN: | WEIGHT | MOMENT |
|------------------------|--------|----------------------|
| Gyroplane basic weight | 1,315 | 150.1 (oil included) |
| Pilot weight | 140 | ? |
| Passenger weight | 150 | ? |
| 27 gal fuel | 162 | ? |

The CG is located

- A) outside the CG envelope; the maximum gross weight is exceeded.
- B) outside the CG envelope; the maximum gross weight and the gross-weight moment are exceeded.
- C) within the CG envelope; neither maximum gross weight nor gross-weight moment is exceeded.

149. H777 LSP

(Refer to figure 36.)

| GIVEN: | WEIGHT | MOMENT |
|------------------------|--------|----------------------|
| Gyroplane basic weight | 1,315 | 154.0 (oil included) |
| Pilot weight | 145 | ? |
| Passenger weight | 153 | ? |
| 27 gal fuel | 162 | ? |

The CG is located

- A) outside the CG envelope; the maximum gross weight is exceeded.
- B) outside the CG envelope; but the maximum gross weight is not exceeded.
- C) within the CG envelope; neither maximum gross weight nor gross-weight moment is exceeded.

150. H777 LSP

(Refer to figure 36.)

| GIVEN: | WEIGHT | MOMENT |
|------------------------|--------|----------------------|
| Gyroplane basic weight | 1,315 | 150.1 (oil included) |
| Pilot weight | 140 | ? |
| Passenger weight | 150 | ? |

27 gal fuel 162 ?

The CG is located

- A) outside the CG envelope; the maximum gross weight is exceeded.
- B) outside the CG envelope; the maximum gross weight and the gross-weight moment are exceeded.
- C) within the CG envelope; neither maximum gross weight nor gross-weight moment is exceeded.

151. H777 LSP

(Refer to figure 36.)

| GIVEN: | WEIGHT | MOMENT |
|------------------------|--------|----------------------|
| Gyroplane basic weight | 1,315 | 154.0 (oil included) |
| Pilot weight | 145 | ? |
| Passenger weight | 153 | ? |
| 27 gal fuel | 162 | ? |

The CG is located

- A) outside the CG envelope; the maximum gross weight is exceeded.
- B) outside the CG envelope; but the maximum gross weight is not exceeded.
- C) within the CG envelope; neither maximum gross weight nor gross-weight moment is exceeded.