AMS PRE-SOLO EXAM (ASEL)

24 feb '23

FAR 61.87 specifies that prior to conducting solo flight, a student pilot must demonstrate satisfactory aeronautical knowledge on a knowledge test. This test is administered by the student's instructor and reviewed by the instructor after the student has completed the exam. The exam is open book. Answers to most questions can be found in the current FAR/AIM, the POH, the POH performance charts, aircraft checklist and the AMS Safety Procedures and Practices. ***This exam is different from the FAA Written Exam.*** The exam will require the student to dig for answers.

Name:_____

Airplane Make/Model_____

1. What type of engine does the aircraft have? _____
2. What is the horsepower of the engine? _____
3. How many gallons of fuel does the aircraft hold? _____
4. How many gallons of useable fuel does the aircraft hold? _____
5. What is best glide speed for the aircraft? _____
6. Define the meaning and list the speeds for each of the following

Vr _____

Vx _____

Vy _____

Vne _____

Vno _____

Va _____

Vfe _____

Vso _____

Vs _____

7. What is the empty weight of the aircraft?

8. What is included in the empty weight of an aircraft?

9. What is the maximum takeoff gross weight of the aircraft?

10. What type/ grade and color is the fuel used in the aircraft?

11. How much does a gallon of fuel weigh that is used in the aircraft?

12.What is the minimum FAA fuel reserve for day VFR?

13.What is AMS minimum fuel reserves for day VFR?

14.How many hours are required between consuming alcohol and flying?

15. What is the maximum blood alcohol content to legally operate an aircraft?

16. Why is it necessary to drain fuel from the fuel sumps and when should this be accomplished?

17. What is the minimum oil quantity for training flights?

18. Who has the final authority and responsibility for the operation of the aircraft when you are flying solo?

19. What personal documents and endorsements are you required before you fly solo?

20. What VFR altitude should you fly whenever your heading is between 0-179 degrees and at what altitude does this requirement take affect?

21. During a magneto check, what is the maximum RPM drop and where Can this limitation be found?

22. What does A.R.O.W. stand for?

A._____

R. _____

O. _____

W. _____

23. Will the engine run if the master switch is turned off?

24. Can a student pilot carry passengers?

25. What equipment is required to be functioning for a day VFR flight?

26. What is the pattern altitude at Peter Prince Airport?

27. What is the pattern direction for runway 18 at Peter Prince?

28. What is the elevation at Peter Prince Airport?

29. What is the frequency of the CTAF at Peter Prince Airport?

30. What is the pattern direction for runway 36 at Peter Prince?

31. What is the standard pattern at an uncontrolled airport unless Otherwise annotated?

32. What is the purpose of the CTAF?

33. What does CTAF stand for and what freq. is Peter Prince's CTAF

34. What is the emergency frequency and what is it called?

35. What is the transponder code for an emergency?

36. What is the transponder code for inop radio?

37. Should you need traffic priority what should you state?

38. What is minimum fuel ?

39. What is flight following?

40. Can you enter Class D airspace without clearance?

41.Define the below airspace below

A

B

C

D

42. What aircraft equipment and what documentation is required before you can enter Class B airspace?

43. What does the white arc on the airspeed indicator indicate?

44. Before any maneuvers are accomplished, what must you do first?

45. What is the stall speed of your aircraft with no flaps at gross wt?

46. What is the stall speed of your aircraft with bank angle 45 degrees at Max gross Weight?

47. What flight instruments are connected to the
- Pitot system

- Static system

48. What is the minimum altitude you can fly

- Over a congested area_____
- Over sparsely populated areas or open water _____
- Anywhere _____

49. How do you enter an exit the traffic pattern at an uncontrolled airport?

50. Describe Wake Turbulence

51. What can you do to avoid wake turbulence?

52. Where does wake turbulence begin on takeoff and where does it end on Landing?

53. Which type aircraft and in which configuration is wake turbulence most severe?

54. When are you required to wear a safety belt? Should harness?

55. If altimeter not available at an airport, what setting should you use before Departing on a local flight?

56.During engine run-up, you cause rocks, debris and propeller blast to be directed toward another aircraft or person. Could this be considered careless or reckless operation of an aircraft? Why or Why Not?

57. Provide visibility and cloud clearance requirements for the following airspace.

Class D

Class E below 10,000’ MSL

Class G below 1,200 ‘ AGL during the day

Class G below 1200’ AGL at night

58. Under what circumstances should you use carburetor heat?

59. What are your crosswind limits and headwind limits?

60. What are the AMS weather and Visibility minimums for solo flight

- Pattern
- Practice Area
- Cross Country

61. Draw what the hold short line looks like?

62. Define runway incursion?

63. Define Stall?

64. Under what circumstances could a spin occur in your training aircraft?

65. Explain how to get out of a spin?

P _____

A_____

R_____

E_____