

Ground School Exam No. 1

- Topics:
 - Airports and operational safety
 - Aerodynamics, stability, and turning tendencies
 - Aircraft systems
 - Airspace
 - Federal regulations
- 1. The numbers 8 and 26 on the approach ends of the runway indicate that the runway is oriented approximately
 - a. 008° and 026° true
 - b. 080° and 206° true
 - c. 080° and 250° true
- 2. When approaching taxiway holding lines from the side with continuous lines, the pilot
 - a. May continue taxiing
 - b. Should not cross the lines without ATC clearance
 - c. Should continue taxiing until all parts of the aircraft have crossed the lines
- 3. Red signs with white lettering indicate
 - a. Areas on an airport where aircraft may not go
 - b. Areas on an airport where aircraft may proceed only after obtaining permission
 - c. Areas on an airport where aircraft may proceed but should use extreme caution
- 4. Yellow signs with black lettering indicate
 - a. Directions to another taxiway or runway
 - b. Areas where caution must be used to avoid collisions with other aircraft
 - c. Areas where taxi speed should be kept to a minimum
- 5. Black signs with yellow lettering indicate
 - a. The location of the aircraft
 - b. Sections of the airport for ground operations
 - c. Places where larger aircraft can pass smaller aircraft
- 6. Wingtip vortices are created only when an aircraft is
 - a. Operating at high airspeeds
 - b. Heavily loaded
 - c. Developing lift
- 7. How does wake turbulence vortex circulate around each wing
 - a. Inward, upward, and around each wingtip
 - b. Inward, upward, and counter clockwise
 - c. Outward, upward, and around each tip

8. During a night flight, you observe a steady red light and a flashing red light ahead and at the same altitude. What is the general direction of movement of the other aircraft?
 - a. The other aircraft is crossing to the left
 - b. The other aircraft is crossing to the right
 - c. The other aircraft is approaching head-on
9. Prior to each maneuver, pilots should
 - a. Check altitude, airspeed, and heading indications
 - b. Visually scan the entire area for collision avoidance
 - c. Announce intentions on the nearest CTAF
10. The most effective method for 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 off center viewing
11. A blue segmented circle on a sectional chart depicts which class of airspace?
 - a. Class B
 - b. Class C
 - c. Class D
12. When a control tower at an airport within class D airspace ceases operation for the day, what happens to the airspace designation?
 - a. The airspace designation normally will not change
 - b. The airspace remains class D airspace as long as weather observer or automated weather systems are available
 - c. The airspace reverts to Class E or a combination of Class E and G airspace during the hours the tower is not in operation
13. The radius of the outer area of Class C airspace is normally
 - a. 10 NM
 - b. 20 NM
 - c. 30 NM
14. Who has the final authority to accept or decline land and hold short operations (LAHSO)?
 - a. Pilot-in-command
 - b. Owner/operator
 - c. Second-in-command
15. With respect to the certification of airmen, which is a category of aircraft?
 - a. Gyroplane, helicopter, airship, and free-balloon
 - b. Airplane, rotorcraft, glider, lighter-than-air
 - c. Single-engine land, single-engine sea, multi-engine land

16. The definition of nighttime is
- Sunset to sunrise
 - 1 hour after sunset to 1 hour before sunrise
 - The time between the end of evening civil twilight and the beginning of morning civil twilight
17. What is the duration of a standard aircraft registration in the U.S.?
- It never expires
 - 2 years
 - 3 years
18. What regulation governs aircraft maintenance?
- 14 CFR part 91
 - 14 CFR part 43
 - 14 CFR part 61
19. Preventative maintenance has been performed on an aircraft, what paperwork is required?
- A full, detailed description of the work done must be entered in the airframe logbook
 - The date the work was completed, and the name of the person who did the work must be entered in the airframe and engine logbooks
 - The signature, certificate number, and kind of certificate held by the person approving the work and a description of the work must be entered in the aircraft maintenance records
20. Which operation would be described as preventative maintenance?
- Servicing landing gear bearings
 - Alteration of main seat support brackets
 - Engine adjustments to allow automotive gas to be used
21. Is it legal to fly on the dealer's registration after purchasing an aircraft?
- Yes, the aircraft can be flown by the buyer for 30 days
 - No, the aircraft cannot be flown by the buyer and has to be registered
 - Yes the airplane can be flown by the buyer for 120 days
22. What documents must be in your personal possession or readily accessible in the aircraft while operating as PIC
- Certificates showing accomplishment of a checkout in the aircraft and a current biennial flight review along with a photo ID
 - A pilot certificate with an endorsement showing accomplishment of annual flight review and a pilot logbook showing recency of experience
 - An appropriate pilot certificate, a photo ID, and an appropriate current medical certificate if required

23. To act as pilot in command of an aircraft carrying passengers, the pilot must have made at least three takeoffs and three landings in an aircraft of the same
- Make and model
 - Category and class, but not type
 - Category, class, and type if a type rating is required
24. If a certificated pilot changes permanent mailing address and fails to notify the FAA airmen certification branch of the new address, the pilot is entitled to exercise the privileges of the pilot certificate for a period of only
- 30 days after the date of the move
 - 60 days after the date of the move
 - 90 days after the date of the move
25. In regard to privileges and limitations, a private pilot may
- Act as PIC of an aircraft carrying a passenger for compensation if the flight is in connection with a business or employment
 - Not pay less than the pro rata share of the operating expenses of a flight with passengers provided the expenses involve only fuel, oil, airport expenditures, or rental fees
 - Not be paid in any manner for the operating expenses of the flight
26. Where may an aircraft's operating limitations be found?
- On the airworthiness certificate
 - In the current, FAA approved flight manual, approved manual material, markings, and placards, or any combination thereof
 - In the aircraft airframe and engine logbooks
27. Safety belts are required to be properly secured about which persons in an aircraft and when?
- Pilots only, during takeoffs and landings
 - Pilots during all phases of flight and passengers during taxi, takeoffs, and landings only
 - Each person on board the aircraft during the entire flight
28. When two or more aircraft are approaching an airport for the purpose of landing, the right-of-way belongs to the aircraft
- That has the other to its right
 - That is the least maneuverable
 - At the lower altitude, but it shall not take advantage of this rule to cut in front of or overtake another
29. For VFR operations, a clearance must be obtained prior to entering which airspace?
- Class C
 - Class E during VFR weather
 - Class B

30. For VFR operations, two way radio communications must be established with the ATC facility having jurisdiction over the area prior to entering which class of airspace?
- Class C
 - Class E
 - Class G
31. What documentation must be on board an aircraft before it is legal to fly?
- Airworthiness, radio operator's certificate, and applicable service manuals
 - Airworthiness, operating limitations, registration, weight and balance data
 - Airworthiness, operating limitations, checklists, and applicable service manuals
32. What inspection(s) are required in order for an aircraft to be considered airworthy?
- Annual inspection, 100 hour inspection (if applicable), and the pitot/static inspection
 - Annual inspection and pre-flight inspection
 - Annual inspection, pre-flight inspection, and avionics inspection
33. If an aircraft is involved in an accident or an incident, where would a person find information pertaining to the proper course of action?
- NTSB 830
 - FAR 43
 - FAR 91
34. What is the purpose of wing flaps
- To enable the pilot to make steeper approaches to a landing without increasing the airspeed
 - To relieve the pilot of maintaining continuous pressure on the controls
 - To decrease wing area to vary lift
35. What is true concerning the primary flight controls?
- The effectiveness of each control surface increases with airspeed because there is more flow over them
 - Only when all three primary flight controls move in sequence do the airflow and pressure distribution change over and around the airfoil
 - Primary flight controls include ailerons, rudder, elevator, and trim systems
36. The term "angle of attack" is defined as the angle between
- The chord line of the wing and the relative wind
 - Airplanes longitudinal axis and that of the air striking the airfoil
 - Airplanes center line and relative wind
37. During a spin to the left, which wings are stalled?
- Both wings are stalled
 - Neither wing is stalled
 - Only the left wing is stalled

38. In what flight condition are the left-hand turning tendencies of an airplane the most pronounced?
- Low airspeed, high power, high angle of attack
 - Low airspeed, low power, low angle of attack
 - High airspeed, high power, high angle of attack
39. Which basic maneuver increases the load factor on an airplane?
- Climbs
 - Turns
 - Stalls
40. During flight, when are the indications of a magnetic compass accurate?
- Only in straight and level unaccelerated flight
 - As long as the airspeed is constant
 - During turns if the bank does not exceed 18°
41. The pitot system provides impact air pressure for which instrument?
- Altimeter
 - Vertical speed indicator
 - Airspeed indicator
42. An abnormally high engine temperature indication may be caused by
- The oil level being too low
 - Operating with a too high viscosity oil
 - Operating with an excessively rich mixture
43. What action(s) can a pilot take to cool an overheating engine?
- Re-lean the mixture, climb to a colder altitude, and reduce power
 - Reduce power, increase airspeed, enrichen the mixture
 - Reduce rate of climb and add power to increase airspeed
44. During the run-up at a high elevation airport, a pilot notices a slight engine roughness that is not affected by the magneto check but grows worse during the carburetor heat check. Under these circumstances, what would be the most logical initial action?
- Check the results obtained with a leaner mixture
 - Taxi back to the flight lines for a maintenance check
 - Reduce manifold pressure to control detonation
45. An electrical system failure (battery and alternator) occurs during flight. In this situation, you would
- Experience avionics equipment failure
 - Probably experience failure of the engine ignition system, fuel gauges, aircraft lighting system, and avionics system
 - Probably experience engine failure due to the loss of the engine-driven fuel pump and also failure of all radio equipment, lights, and all instruments requiring electrical current