

Aardvark Aeronautics Private Pilot Practice Test

1.

3220. What is one purpose of wing flaps?

- A To enable the pilot to make steeper approaches to a landing without increasing the airspeed.
- B To relieve the pilot of maintaining continuous pressure on the controls.
- C To decrease wing area to vary the lift.

2.

3203. (Refer to figure 1) The acute angle A is the angle of

- A incidence.
- B attack.
- C dihedral.

3.

3206. How will frost on the wings of an airplane affect takeoff performance?

- A Frost will disrupt the smooth flow of air over the wing, adversely affecting its lifting capability.
- B Frost will change the camber of the wing, increasing its lifting capability.
- C Frost will cause the airplane to become airborne with a higher angle of attack, decreasing the stall speed.

4.

3301. What force makes an airplane turn?

- A The horizontal component of lift.
- B The vertical component of lift.
- C Centrifugal force.

5.

3208. The left turning tendency of an airplane caused by P-factor is the result of the

- A clockwise rotation of the engine and the propeller turning the airplane counterclockwise.
- B propeller blade descending on the right, producing more thrust than the ascending blade on the left.
- C gyroscopic forces applied to the rotating propeller blades acting 90° in advance of the point the force was applied.

6.

3214. (Refer to figure 2) If an airplane weighs 2,300 pounds, what approximate weight would the airplane structure be required to support during a 60° banked turn while maintaining altitude?

- A 2,300 pounds.
- B 3,400 pounds.
- C 4,600 pounds.

7.

3279. Deviation in a magnetic compass is caused by the

- A presence of flaws in the permanent magnets of the compass.
- B difference in the location between true north and magnetic north.
- C magnetic fields within the aircraft distorting the lines of magnetic force.

8.

3274. What is an important airspeed limitation that is not color coded on airspeed indicators?

- A Never-exceed speed.
- B Maximum structural cruising speed.
- C Maneuvering speed.

9.

3270. (Refer to figure 4.) What is the maximum flaps-extended speed?

- A 65 MPH.
- B 100 MPH.
- C 165 MPH.

10.

3252. (Refer to figure 3.) Altimeter 3 indicates

- A 9,500 feet.
- B 10,950 feet.
- C 15,940 feet.

11.

3258. What is density altitude?

- A The height above the standard datum plane.
- B The pressure altitude corrected for nonstandard temperature.
- C The altitude read directly from the altimeter.

12.

3392. Under what condition will true altitude be lower than indicated altitude?

- A In colder than standard air temperature.
- B In warmer than standard air temperature.
- C When density altitude is higher than indicated altitude.

13.

3651. What action can a pilot take to aid in cooling an engine that is overheating during a climb?

- A Reduce rate of climb and increase airspeed.
- B Reduce climb speed and increase RPM.
- C Increase climb speed and increase RPM.

14.

3223. 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.

15.

3233. What change occurs in the fuel/air mixture when carburetor heat is applied?

- A A decrease in RPM results from the lean mixture.
- B The fuel/air mixture becomes richer.
- C The fuel/air mixture becomes leaner.

16.

3239. 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.

17.

3778. The numbers 9 and 27 on a runway indicate that the runway is oriented approximately

- A 009° and 027° true.
- B 090° and 270° true.
- C 090° and 270° magnetic.

18.

3808. (Refer to figure 51.) 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.

19.
3767. (Refer to figure 48.) 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.

20.
3120. Each pilot of an aircraft approaching to land on a runway served by a visual approach slope indicator (VASI) shall

- A maintain a 3° glide to the runway.
- B maintain an altitude at or above the glide slope.
- C stay high until the runway can be reached in a power-off landing.

21.
3827. When taking off or landing at an airport where heavy aircraft are operating, one should be particularly alert to the hazards of wingtip vortices because this turbulence tends to

- A rise from a crossing runway into the takeoff or landing path.
- B rise into the traffic pattern area surrounding the airport.
- C sink into the flightpath of aircraft operating below the aircraft generating the turbulence.

22.
3812. If instructed by ground control to taxi to Runway 9, the pilot may proceed

- A via taxiways and across runways to, but not onto, Runway 9.
- B to the next intersecting runway where further clearance is required.
- C via taxiways and across runways to Runway 9, where an immediate takeoff may be made.

23.
3781. All operations within Class C airspace must be in

- A accordance with instrument flight rules.
- B compliance with ATC clearances and instructions.
- C an aircraft equipped with a 4096-code transponder with Mode C encoding capability.

24.
3801. When operating under VFR below 18,000 feet MSL, unless otherwise authorized, what transponder code should be selected?

- A 1200.
- B 7600.
- C 7700.

25.
3792. An ATC radar facility issues the following advisory to a pilot flying on a heading of 0900:

"TRAFFIC 3 O'CLOCK, 2 MILES, WESTBOUND..."

Where should the pilot look for this traffic?

- A East.
- B South.
- C West.

26.
3002. With respect to the certification of airmen, which is ~ class of aircraft?

- A Airplane, rotorcraft, glider, lighter-than-air.
- B Single-engine land and sea, multiengine land and sea.
- C Lighter-than-air, airship, hot air balloon, gas balloon

27.
3011. Which would provide the greatest gain in altitude in the shortest distance during climb after takeoff?

- A V_Y
- B V_A
- C V_X

28.
3187. 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.

29.
3013. Preventive maintenance has been performed on in aircraft. What paperwork is required?

- A A full, detailed description of the work done must be entered in the airframe logbook.
- B The date the work was completed, and the name of the person who did the work must be entered in the airframe and engine logbook.
- C 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.

30.
3014. Which operation would be described as preventive maintenance?

- A Servicing landing gear wheel bearings.
- B Alteration of main seat support brackets.
- C Engine adjustments to allow automotive gas to be used.

31.
3050. Maya recreational pilot act as pilot in command of an aircraft in furtherance of a business?

- A Yes, if the flight is only incidental to that business.
- B Yes, providing the aircraft does not carry a person or property for compensation or hire.
- C No, it is not allowed.

32.
3070. The final authority as to the operation of an aircraft is the

- A Federal Aviation Administration.
- B pilot in command.
- C aircraft manufacturer.

33.
3820. When must the battery in an emergency locator transmitter (ELT) be replaced (or recharged if the battery is rechargeable)?

- A After one-half the battery's useful life.
- B During each annual and 100-hour inspection.
- C Every 24 calendar months.

34.
3300. 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.

35.
3296. (Refer to figure 8.) What is the effect of a temperature increase from 30 to 50° F on the density altitude if the pressure altitude remains at 3,000 feet MSL?

- A 900-foot increase.
- B 1,100-foot decrease.
- C 1,300-foot increase.

36.
3706. (Refer to figure 41.) Determine the total distance required for takeoff to clear a 50-foot obstacle.

OAT..... Std,
Pressure altitude. Sea level
Takeoff weight..... 2,700 lb
Headwind component..... Calm

- A 1,000 feet.
- B 1,400 feet.
- C 1,700 feet.

37.
3683. (Refer to figure 37) What is the headwind component for a landing on Runway 18 if the tower reports the wind as 220° at 30 knots?

- A 19 knots.
- B 23 knots.
- C 26 knots.

38.
3692. (Refer to figure 38 on page 162.) Determine the approximate total distance required to land over a 50-ft. obstacle.

OAT.....90°F
Pressure altitude. 4,000 ft
Weight.....2,800 lb
Headwind component10 kts

- A 1,525 feet.
- B 1,775 feet.
- C 1,950 feet.

39.
1664. GIVEN'

	WEIGHT (LB)	ARM (IN)	MOMENT (LB-IN)
Empty weight	1,495.0	101.4	151,593.0
Pilot and passengers	380.0	64.0	-----
Fuel (30 gal usable no reserve)	-----	96.0	-----

The CG is located how far aft of datum?

- A CG 92.44.
- B CG 94.01.
- C CG 119.8.

40.
1661. 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.

41.
3670. (Refer to figure 35.) Calculate the moment of the airplane and determine which category is applicable.

	WEIGHT (LB)	MOM/1000
Empty weight	1,350	51.5
Pilot and front passenger	310	-----
Rear passengers	96	-----
Fuel, 38 gal	---	-----
Oil, 8 qt	---	-0.2

- A 79.2, utility category.
- B 80.8, utility category.
- C 81.2, normal category.

42.
3844. Which statement best defines hypoxia?

- A A state of oxygen deficiency in the body
- B An abnormal increase in the volume of air breathed
- C A condition of gas bubble formation around the joints or muscles

43.
3853. If a pilot experiences spatial disorientation during flight in a restricted visibility condition, the best way to overcome the effect is to

- A rely upon the aircraft instrument indications.
- B concentrate on yaw, pitch, and roll sensations.
- C consciously slow the breathing rate until symptoms clear and then resume normal breathing rate.

44.
3833. What effect does haze have on the ability to see traffic or terrain features during flight?

- A Haze causes the eyes to focus at infinity.
- B The eyes tend to overwork in haze and do not detect relative movement easily.
- C All traffic or terrain features appear to be farther away than their actual distance.

45.
3832. Large accumulations of carbon monoxide in the human body result in

- A tightness across the forehead.
- B loss of muscular power.
- C an increased sense of well-being.

46.
3382. What causes variations in altimeter settings between weather reporting points?

- A Unequal heating of the Earth's surface.
- B Variation of terrain elevation.
- C Coriolis force.

47.
3423. One weather phenomenon which will always occur when flying across a front is a change in the

- A wind direction.
- B type of precipitation.
- C stability of the air mass.

48.
3402. The presence of ice pellets at the surface is evidence that there

- A are thunderstorms in the area.
- B has been cold frontal passage.
- C is a temperature inversion with freezing rain at a higher altitude.

49.
3427. When may hazardous wind shear be expected?

- A When stable air crosses a mountain barrier where it tends to flow in layers forming lenticular clouds.
- B In areas of low-level temperature inversion, frontal zones, and clear air turbulence.
- C Following frontal passage when stratocumulus clouds form indicating mechanical mixing.

50.
3443. What situation is most conducive to the formation of radiation fog?

- A Warm, moist air over low, flatland areas on clear, calm nights.
- B Moist, tropical air moving over cold, offshore water.
- C The movement of cold air over much warmer water.

51.
3410. At approximately what altitude above the surface would the pilot expect the base of cumuliform clouds if the surface air temperature is 82° F and the dewpoint is 38° F?

- A 9,000 feet AGL.
- B 10,000 feet AGL.
- C 11,000 feet AGL.

52.
3413. What are characteristics of unstable air?

- A Turbulence and good surface visibility.
- B Turbulence and poor surface visibility.
- C Nimbostratus clouds and good surface visibility.

53.
3457. Which type weather briefing should a pilot request, when departing within the hour, if no preliminary weather information has been received?

- A Outlook briefing.
- B Abbreviated briefing
- C Standard briefing.

54.
3526. What should pilots state initially when telephoning a weather briefing facility for preflight weather information?

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

55.
3459. To update a previous weather briefing, a pilot should request.

- A an abbreviated briefing.
- B a standard briefing.
- C an outlook briefing.

56.
3473. (Refer to figure 14) The wind and temperature at 12,000 feet MSL as reported by a pilot are

- A 009° at 121 MPH and 90 °F.
- B 090° at 21 knots and -9 °F
- C 090° at 21 knots and -9 °C.

57.
3484. (Refer to figure 15.) In the T AF from KOKC, the clear sky becomes

- A- overcast at 2,000 feet during the forecast period between 2200Z and 2400Z.
- B overcast at 200 feet with a 40% probability of becoming overcast at 600 feet during the forecast period between 2200Z and 2400Z.
- C overcast at 200 feet with the probability of becoming overcast at 400 feet during the forecast period between 2200Z

58.
3517. (Refer to figure 19, area D.) What is the direction and speed of movement of the radar return?

- A- Southeast at 30 knots.
- B- Northeast at 20 knots.
- C- West at 30 knots.

59.
3501. (Refer to figure 17.) What wind is forecast for STL at 18,000 feet?

- A 230° true at 56 knots.
- B 235° true at 06 knots.
- C 235° magnetic at 06, peak gusts to 16 knots.

60.
3454. Transcribed Weather Broadcasts (TWEB's) may be monitored by tuning the appropriate radio receiver to certain

- A airport advisory frequencies.
- B VOR and NDB frequencies.
- C ATIS frequencies.

61.
3535. (Refer to figure 22, area 2) Which airport is located at approximately 47°39'30"N latitude and 100°53'00"W longitude?

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

62.
3785. What action should a pilot take when operating under VFR in a Military Operations Area (MOA)?

- A Obtain a clearance from the controlling agency prior to entering the MOA.
- B Operate only on the airways that transverse the MOA.
- C Exercise extreme caution when military activity is being conducted.

63.
3610. (Refer to figure 27, area 2.) What is the recommended communication procedure when inbound to land at Cooperstown Airport?

- A Broadcast intentions when 10 miles out on the CTAF/MULTICOM frequency, 122.9 MHz.
- B Contact UNICOM when 10 miles out on 122.8 MHz.
- C Circle the airport in a left turn prior to entering traffic.

64.
3856. FAA advisory circulars containing subject matter specifically related to Air Traffic Control and General Operations are issued under which subject number?

- A 60.
- B 70.
- C 90.

65.
3839. (Refer to figure 53.) Which type radar service is provided to VFR aircraft at Lincoln Municipal?

- A Sequencing to the primary Class C airport and standard separation.
- B Sequencing to the primary Class C airport and conflict resolution so that radar targets do not touch, or 1,000 feet vertical separation.
- C Sequencing to the primary Class C airport, traffic advisories, conflict resolution and safety alerts.

66.
3598. When the course deviation indicator (CDI) needle is centered during an omnireceiver check using a VOR test signal (VOT), the omnibearing selector (OBS) and the TO/FROM indicator should read

- A-180° FROM, only if the pilot is due north of the VOT.
- B-0° TO or 180° FROM, regardless of the pilot's position from the VOT.
- C-0° FROM or 180° TO, regardless of the pilot's position from the VOT.

67.
3578. (Refer to figure 29, illustration 3.) The VOR receiver has the indications shown. What is the aircraft's position relative to the station?

- A East.
- B Southeast.
- C West.

68.
3815. (Refer to figure 52) If more than one cruising altitude is intended, which should be entered in block 7 of the flight plan?

- A Initial cruising altitude.
- B Highest cruising altitude.
- C Lowest cruising altitude.

69.
3302. When taxiing with strong quartering tailwinds, which aileron positions should be used?

- A Aileron down on the downwind side.
- B Ailerons neutral.
- C Aileron down on the side from which the wind is blowing.

70.
3719. VFR approaches to land at night should be accomplished

- A at a higher airspeed.
- B with a steeper descent.
- C the same as during daytime.

71.
3531. (Refer to figure 21.) Determine the magnetic course from First Flight Airport (area 5) to Hampton Roads Airport (area 2).

- A 312°.
- B 321°.
- C 330°.

72.

3539. (Refer to figure 22.) What course should be selected on the omnibearing selector (OBS) to make a direct flight from Mercer County Regional Airport (area 3) to the Minot VORTAC (area 1) with a TO indication?

- A 001°,
- B 012°,
- C 181°,

73.

3550. (Refer to figure 24.) Determine the compass heading for a flight from Allendale County Airport (area 1) to Claxton-Evans County Airport (area 2). The wind is from 090° at 16 knots and the true airspeed is 90 knots.

- A 229°
- B 205°
- C 211°

74.

3548. (Refer to figure 24.) What is the estimated time en route for a flight from Allendale County Airport (area 1) to Claxton-Evans County Airport (area 2)? The wind is from 090° at 16 knots and the true airspeed is 90 knots. Add 2 minutes for climb-out.

- A 33 minutes.
- B 37 minutes.
- C 41 minutes.

75.

3574. (Refer to figure 28 below.) An aircraft departs an airport in the mountain standard time zone at 1615 MST for a 2-hour 15-minute flight to an airport located in the Pacific standard time zone. The estimated time of arrival at the destination airport should be

- A 1630 PST.
- B 1730 PST.
- C 1830 PST.