1 Which statement relates to Bernoulli’s principle?
   A. For every action there is an equal and opposite reaction.
   B. An additional upward force is generated as the lower surface of the wing deflects air downward.
   C. Air traveling faster over the curved upper surface of an airfoil causes lower pressure on the top surface.


2 The term 'angle of attack' is defined as the angle between the
   A. chord line of the wing and the relative wind.
   B. airplane’s longitudinal axis and that of the air striking the airfoil.
   C. airplane’s center line and the relative wind.


3 While on a VFR cross country and not in contact with ATC, what frequency would you use in the event of an
   emergency?
   A. 121.5 MHz.
   B. 122.5 MHz.
   C. 128.725 MHz.

   PLT391 / PA.VI.B.K3 Radar assistance to VFR aircraft (operations, equipment, available services, traffic
   advisories).

4 (Refer to FAA-CT-8080-2F, Figure 39.) Determine the approximate landing ground roll distance.
   Pressure altitude 5,000 ft
   Headwind Calm
   Temperature 101°F
   A. 445 feet.
   B. 545 feet.
   C. 495 feet.

   PLT008 / PA.I.F.K1 Elements related to performance and limitations (takeoff and landing, crosswind, tailwind and headwind, density altitude, glide performance, weight and balance, climb, cruise, descent, powerplant considerations) by explaining the use of charts, tables, and data to determine performance.

5 (Refer to FAA-CT-8080-2F, Figure 8.) What is the effect of a temperature increase from 35 to 50°F on the
   density altitude if the pressure altitude remains at 3,000 feet MSL?
   A. 1,000-foot increase.
   B. 1,100-foot decrease.
   C. 1,300-foot increase.

   PLT124 / PA.VI.A.K4 True airspeed and density altitude.
6 (Refer to FAA-CT-8080-2F, Figure 36.) Determine the approximate manifold pressure setting with 2,450 RPM to achieve 65 percent maximum continuous power at 6,500 feet with a temperature of 36°F higher than standard.
A. 19.8 inches Hg.
B. 20.8 inches Hg.
C. 21.0 inches Hg.

Power setting selection.

7 When activated, an emergency locator transmitter (ELT) transmits on
A. 118.0 and 118.8 MHz.
B. 121.5 and 243.0 MHz.
C. 123.0 and 119.0 MHz.

ELTs and/or other emergency locating devices.

8 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.

Major components of the systems: Flaps, leading edge devices, and spoilers.

9 Unless otherwise authorized, if flying a transponder equipped aircraft, a pilot should squawk which VFR code?
A. 1200.
B. 7600.
C. 7700.

Transponder.

10 If an aircraft is equipped with a fixed-pitch propeller and a float-type carburetor, the first indication of carburetor ice would most likely be
A. increase of RPM.
B. engine roughness.
C. loss of RPM.

Outside/environmental factors affecting the systems, including improper fueling, carburetor ice, extremely cold temperatures, vapor lock.

11 With regard to carburetor ice, float-type carburetor systems in comparison to fuel injection systems are generally considered to be
A. more susceptible to icing.
B. equally susceptible to icing.
C. less susceptible to icing.
12 What does the red line on an airspeed indicator represent?
A. Maneuvering speed.
B. Turbulent or rough-air speed.
C. Never-exceed speed.

13 Deviation error of the magnetic compass is caused by
A. northerly turning error.
B. certain metals and electrical systems within the aircraft.
C. the difference in location of true north and magnetic north.

14 When making routine transponder code changes, pilots should avoid inadvertent selection of which code?
A. 7200.
B. 7000.
C. 7500.

15 This sign confirms your position on
A. runway 22.
B. routing to runway 22.
C. taxiway 22.

16 Who has final authority to accept or decline any land and hold short (LAHSO) clearance?
A. Pilot in command.
B. Air Traffic Controller.
C. Second in command.

17 (Refer to FAA-CT-8080-2F, 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.
18 From the cockpit, this marking confirms the aircraft to be
A. on a taxiway, about to enter runway zone.
B. on a runway, about to clear.
C. near an instrument approach clearance zone.

19 (Refer to FAA-CT-8080-2F, Figure 65.) Which marking indicates a vehicle lane?
A. A.
B. C.
C. E.

20 (Refer to FAA-CT-8080-2F, Figure 49.) That portion of the runway identified by the letter A may be used for
A. landing.
B. taxiing and takeoff.
C. taxiing and landing.

21 (Refer to FAA-CT-8080-2F, Figure 79.) What are the basic VFR weather minima required to takeoff from the Onawa, IA (K36) airport during the day?
A. 3 statute miles visibility, 500 feet below the clouds, 1,000 feet above the clouds and 2,000 feet horizontally from the clouds.
B. 0 statute miles, clear of clouds.
C. 1 statute mile, clear of clouds.

22 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.

23 The radius of the procedural outer area of Class C airspace is normally
A. 10 NM.
B. 20 NM.
C. 30 NM.
24. ATC advises, "traffic 12 o'clock." This advisory is relative to your
   A. true course.
   B. ground track.
   C. magnetic heading.
   PLT044 / PA.III.A.K2 Standard communication procedures and ATC standard phraseology.

25. The Aeronautical Information Manual (AIM) specifically encourages pilots to turn on their landing lights when operating below 10,000 feet, day or night, and especially when operating
   A. in Class B airspace.
   B. in conditions of reduced visibility.
   C. within 15 miles of a towered airport.
   PLT119 / PA.III.B.K3 Collision avoidance.

26. When executing an emergency approach to land in a single-engine airplane, it is important to maintain a constant glide speed because variations in glide speed will
   A. increase the chances of shock cooling the engine.
   B. assure the proper descent angle is maintained until entering the flare.
   C. nullify all attempts at accuracy in judgment of gliding distance and landing spot.
   PLT208 / PA.IX.A.K1 Glide speed, distance.

27. The destination airport has one runway, 8-26, and the wind is calm. The normal approach in calm wind is a left hand pattern to runway 08. There is no other traffic at the airport. A thunderstorm about 6 miles west is beginning its mature stage, and rain is starting to reach the ground. The pilot decides to
   A. fly the pattern to runway 8 since the storm is too far away to affect the wind at the airport.
   B. fly the normal pattern to runway 8 since the storm is west and moving north and any unexpected wind will be from the east or southeast toward the storm.
   C. fly an approach to runway 26 since any unexpected wind due to the storm will be westerly.
   PLT271 / PA.I.H.K4 Aeronautical decision-making as affected by hazardous attitudes.

28. If Receiver Autonomous Integrity Monitoring (RAIM) capability is lost in-flight,
   A. the pilot may still rely on GPS derived altitude for vertical information.
   B. the pilot has no assurance of the accuracy of the GPS position.
   C. GPS position is reliable provided at least 3 GPS satellites are available.
   PLT354 / PA.VI.B.K2 Global Positioning System (GPS) or Global Navigation Satellite System (GNSS) (equipment, regulations, databases authorized use, Receiver Autonomous Integrity Monitoring (RAIM)).
29 (Refer to FAA-CT-8080-2F, Figure 21, area 3; and Figure 29.) The VOR is tuned to Elizabeth City VOR/DME, and the aircraft is positioned over Shawboro, a small town 3 NM west of Currituck County Regional (ONX). Which VOR indication is correct?

A. 2.
B. 5.
C. 9.

**PLT090 / PA.VI.B.K1**  
Ground-based navigation (orientation, course determination, equipment, tests and regulations).

30 (Refer to FAA-CT-8080-2F, Figure 26, area 5.) The navigation facility at Dallas-Ft. Worth International (DFW) is a

A. VOR.
B. VORTAC.
C. VOR/DME.

**PLT101 / PA.I.D.K8**  
Symbology found on VFR charts.

31 How far will an aircraft travel in 7.5 minutes with a ground speed of 114 knots?

A. 14.25 NM.
B. 15.00 NM.
C. 14.50 NM.

**PLT012 / PA.I.D.K4**  
Calculating time, rate, course, distance, heading, TAS and ground speed, course.

32 (Refer to FAA-CT-8080-2F, Figure 53.) Where is Loup City Municipal located with relation to the city?

A. Northeast approximately 3 miles.
B. Northwest approximately 1 mile.
C. East approximately 7 miles.

**PLT078 / PA.I.D.S9**  
Applies pertinent information from A/FD; NOTAMs relative to airport, runway and taxiway closures; and other flight publications.

33 (Refer to FAA-CT-8080-2F, Figure 27, area 2.) The day VFR visibility and cloud clearance requirements to operate over the town of Cooperstown, after departing and climbing out of the Cooperstown Airport at or below 700 feet AGL are

A. 1 mile and clear of clouds.
B. 1 mile and 1,000 feet above, 500 feet below, and 2,000 feet horizontally from clouds.
C. 3 miles and clear of clouds.

**PLT064 / PA.I.E.K3**  
Requirements for flying in different classes of airspace.
34 (Refer to FAA-CT-8080-2F, Figure 52.) What information should be entered in block 12 for a VFR day flight?
   A. The actual time en route expressed in hours and minutes.
   B. The estimated time in en route expressed in hours and minutes.
   C. The total amount of usable fuel onboard expressed in hours and minutes.

35 When the course deviation indicator (CDI) needle is centered using a VOR test signal (VOT), the omnibearing selector (OBS) and the TO/FROM indicator should read
   A. $180^\circ$ FROM, only if the pilot is due north of the VOT.
   B. $0^\circ$ TO or $180^\circ$ FROM, regardless of the pilot's position from the VOT.
   C. $0^\circ$ FROM or $180^\circ$ TO, regardless of the pilot's position from the VOT.

36 (Refer to FAA-CT-8080-2F, Figure 21, area 1.) The NALF Fentress (NFE) Airport is in what type of airspace?
   A. Class C.
   B. Class E.
   C. Class G.

37 Unless otherwise authorized, two-way radio communications with Air Traffic Control are required for landings or takeoffs at all towered airports
   A. regardless of weather conditions.
   B. only when weather conditions are less than VFR.
   C. within Class D airspace only when weather conditions are less than VFR.

38 Maintenance records show the last transponder inspection was performed on September 1, 2014. The next inspection will be due no later than
   A. September 30, 2015.
   B. September 1, 2016.

39 During operations outside controlled airspace at altitudes of more than 1,200 feet AGL, but less than 10,000 feet MSL, the minimum flight visibility for VFR flight at night is
   A. 1 mile.
   B. 3 miles.
   C. 5 miles.
40 Pre-takeoff briefing of passengers for a flight is the responsibility of
   A. all passengers.
   B. the pilot.
   C. a crewmember.

   PLT444 / PA.II.B.K3 Passenger briefing requirements and appropriate information.

41 Two-way radio communication must be established with the Air Traffic Control facility having jurisdiction over
   the area prior to entering which class airspace?
   A. Class C.
   B. Class E.
   C. Class G.

   PLT434 / PA.III.A.K2 Standard communication procedures and ATC standard phraseology.

42 With respect to the certification of airmen, which are categories of aircraft?
   A. Gyroplane, helicopter, airship, free balloon.
   B. Airplane, rotorcraft, glider, lighter-than-air.

   PLT371 / PA.I.A.K7 Category and Class.

43 Approximately what true airspeed should a pilot expect with full throttle at 10,500 feet with a temperature of 36 °F
   above standard?
   A. 190 KTS.
   B. 159 KTS.
   C. 165 KTS.

   PLT002 / PA.I.D.K4 Calculating time, rate, course, distance, heading, TAS and ground speed, course.

44 In which class of airspace is aerobatic flight prohibited?
   A. Class E airspace not designated for federal airways above 1,500 feet AGL.
   B. Class E airspace below 1,500 feet AGL.
   C. Class G airspace above 1,500 feet AGL.

   PLT369 / PA.I.E.K3 Requirements for flying in different classes of airspace.

45 During operations outside controlled airspace at altitudes of more than 1,200 feet AGL, but less than 10,000
   feet MSL, the minimum distance below clouds requirement for VFR flight at night is
   A. 500 feet.
   B. 1,000 feet.
   C. 1,500 feet.

   PLT163 / PA.I.E.K3 Requirements for flying in different classes of airspace.
46 A flashing white light signal from the control tower to a taxiing aircraft is an indication to
   A. taxi at a faster speed.
   B. taxi only on taxiways and not cross runways.
   C. return to the starting point on the airport.

47 A 100-hour inspection was due at 3302.5 hours. The 100-hour inspection was actually done at 3309.5 hours.
   When is the next 100-hour inspection due?
   A. 3312.5 hours.
   B. 3395.5 hours.
   C. 3402.5 hours.
   PLT372 / PA.I.B.K1c General airworthiness requirements and compliance for airplanes: Inspection requirements.

48 (Refer to FAA-CT-8080-2F, Figure 16.) What sky condition and visibility are forecast for upper Michigan in the
   eastern portions after 2300Z?
   A. Ceiling 1,000 feet overcast and 3 to 5 statute miles visibility.
   B. Ceiling 1,000 feet overcast and 3 to 5 nautical miles visibility.
   C. Ceiling 100 feet overcast and 3 to 5 statute miles visibility.
   PLT081 / PA.I.C.K3 Current and forecast weather for departure, arrival, en route phases of flight.

49 When speaking to an AFSS weather briefer, you should state
   A. the pilot in command's full name and address.
   B. a summary of your qualifications.
   C. whether the flight is VFR or IFR.
   PLT514 / PA.I.C.S1 Use available aviation weather resources to obtain an adequate weather briefing.

50 The mature stage of a thunderstorm begins with
   A. formation of the anvil top.
   B. the start of precipitation.
   C. continuous downdrafts.
   PLT495 / PA.I.C.K4h Meteorology applicable to local, departure, en route, alternate, and destination of VFR flight in Visual Meteorological Conditions (VMC) to include expected climate and hazardous conditions such as: Thunderstorms.

51 To determine the freezing level and areas of probable icing aloft, the pilot should refer to the
   A. inflight aviation weather advisories.
   B. weather depiction chart.
   C. area forecast.
   PLT274 / PA.I.C.K2 Weather products required for preflight planning and en route operations.
52 (Refer to FAA-CT-8080-2F, Figure 16.) The Chicago FA forecast section is valid until the twenty-fifth at
A. 0800Z.
B. 1400Z.
C. 1945Z.

PLT081   / PA.I.C.K3 Current and forecast weather for departure, arrival, en route phases of flight.

53 You plan to phone a weather briefing facility for preflight weather information. You should
A. provide the number of occupants on board.
B. identify yourself as a pilot.
C. begin with your route of flight.

PLT514   / PA.I.C.K1 Acceptable sources of weather data for flight planning purposes.

54 The wind at 5,000 feet AGL is southwesterly while the surface wind is southerly. This difference in direction is primarily due to
A. stronger pressure gradient at higher altitudes.
B. friction between the wind and the surface.
C. stronger Coriolis force at the surface.

PLT516   / PA.I.C.K4b Meteorology applicable to local, departure, en route, alternate, and destination of VFR flight in Visual Meteorological Conditions (VMC) to include expected climate and hazardous conditions such as: Wind.

55 When warm, moist, stable air flows upslope, it
A. produces stratus type clouds.
B. causes showers and thunderstorms.
C. develops convective turbulence.

PLT192   / PA.I.C.K4f Meteorology applicable to local, departure, en route, alternate, and destination of VFR flight in Visual Meteorological Conditions (VMC) to include expected climate and hazardous conditions such as: Clouds.

56 (Refer to FAA-CT-8080-2F, Figure 17.) What wind is forecast for STL at 12,000 feet?
A. 230° true at 56 knots.
B. 230° true at 39 knots.
C. 230° magnetic at 56 knots.

PLT076   / PA.I.C.K3 Current and forecast weather for departure, arrival, en route phases of flight.

57 (Refer to FAA-CT-8080-2F, Figure 16.) What sky conditions and obstructions to visibility are forecast for upper Michigan in the western portions from 0200Z until 0500Z?
A. Ceiling becoming 1,000 feet overcast with visibility 3 to 5 statute miles in mist.
B. Ceiling becoming 1,000 feet overcast with visibility 3 to 5 nautical miles in mist.
C. Ceiling becoming 100 feet overcast with visibility 3 to 5 statute miles in mist.

PLT081   / PA.I.C.K3 Current and forecast weather for departure, arrival, en route phases of flight.
58 The boundary between two different air masses is referred to as
A. frontolysis.
B. frontogenesis.
C. front.

59 Why is frost considered hazardous to flight?
A. Frost changes the basic aerodynamic shape of the airfoils, thereby increasing lift.
B. Frost slows the airflow over the airfoils, thereby increasing control effectiveness.
C. Frost spoils the smooth flow of air over the wings, thereby decreasing lifting capability.

60 (Refer to FAA-CT-8080-2F, Figures 33 and 34.) Which action can adjust the airplane’s weight to maximum gross weight and the CG within limits for takeoff?
Front seat occupants 425 lb
Rear seat occupants 300 lb
Fuel, main tanks 44 gal
A. Drain 12 gallons of fuel.
B. Drain 9 gallons of fuel.
C. Transfer 12 gallons of fuel from the main tanks to the auxiliary tanks.