The following sample exam for Private Pilot-Airplane (PAR) is suitable study material for the Private Pilot-Airplane Rating. These questions are a representation of questions that can be found on all Private Pilot-Airplane Rating tests. The applicant must realize that these questions are to be used as a study guide and are not necessarily actual test questions. The full PAR test contains 60 questions. The Application Identification, Information Verification and Authorization Requirements Matrix lists all FAA exams. It is available at: http://www.faa.gov/training_testing/testing/media/testing_matrix.pdf

The FAA testing system is supported by a series of supplement publications. These publications include the graphics, legends, and maps that are needed to successfully respond to certain test questions. FAA-CT-8080-2, Computer Testing Supplement for Sport Pilot, Recreational Pilot, and Private Pilot is available at: http://www.faa.gov/training_testing/testing/test_questions/media/sport_rec_private_akts.pdf

You will see two codes listed at the end of each question and the description of the Airman Certification Standards (ACS) task element.

- The first code (e.g., PLT 168) is the Learning Statement Code (LSC) currently associated with the topic of the question. You will see Learning Statement Codes for knowledge areas missed on your Airman Knowledge Test Report (AKTR). The Learning Statement Reference Guide for Airman Knowledge Testing contains listings of learning statements with their associated codes. Matching the LSC with the codes listed on your AKTR assists in the evaluation of knowledge areas missed on your exam. It is available at: http://www.faa.gov/training_testing/testing/media/LearningStatementReferenceGuide.pdf

- The second code (e.g., PA.I.F.K6) is the for the question topic area. The FAA expects the ACS codes to replace the LSC codes on the PAR Airman Knowledge Test within the next 12-18 months. The DRAFT Private Pilot – Airplane Airman Certification Standards (ACS) document is available at: http://www.faa.gov/training_testing/testing/media/private_airplane_acs.pdf

The proposed coding system has four elements that are anchored in the ACS.

PA = (private pilot airplane) – identifies the applicable ACS.
I = Area of Operation (Preflight Preparation)
F = Task (Performance and Limitations);
K6 = Task element [knowledge (K), skill (S), risk management (R)] (Aerodynamics)

Airman Certification Standards (ACS) Codes

Since 2011, the FAA has been working with aviation community experts on developing the Airman Certification Standards (ACS) as a way to improve airman testing and training. One of the overarching goals of the ACS effort is to create an integrated, coherent airman certification system in which standards, guidance, and testing can be aligned and maintained in alignment. Such symmetry is key to fully realizing the benefits the ACS system promises to both the FAA and its many stakeholders. It is also key to conformance with accepted industry standards for certification programs, which require that items to be trained and tested be directly linked to the job/task analysis – in this case, the ACS.

To help achieve this goal, the aviation community experts who developed the ACS have also developed a new coding system that will eventually apply to both Airman Knowledge Tests and Practical Test tasks. These codes provide the means to correlate the tasks in the ACS with guidance and testing, and to keep them aligned going forward.

When the FAA implements the ACS approach, the ACS codes will supersede the current system of “Learning Statement Codes” (LSC), which is too limited to serve as the mechanism for alignment and too complex to effectively serve the needs of the FAA and the stakeholder community.

The ACS-based coding scheme will:

- Clearly align guidance and test questions to the ACS;
- Make the AKTR meaningful to stakeholders (applicant, instructor, evaluator, etc.);
- Provide a means for automated generation of tests, whether using the existing test forms or future randomized selections; and
- Eliminate subjectivity and vastly simplify system management requirements for the FAA.
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. (Refer to FAA-CT-8080-2F, Figure 39.) Determine the total distance required to land over a 50-foot obstacle.

<table>
<thead>
<tr>
<th>Pressure altitude</th>
<th>5,000 ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headwind</td>
<td>8 kts</td>
</tr>
<tr>
<td>Temperature</td>
<td>41°F</td>
</tr>
<tr>
<td>Runway</td>
<td>Hard surface</td>
</tr>
</tbody>
</table>

   A. 837 feet.
   B. 956 feet.
   C. 1,076 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.

4. (Refer to FAA-CT-8080-2F, Figure 39.) Determine the approximate landing ground roll distance.

<table>
<thead>
<tr>
<th>Pressure altitude</th>
<th>5,000 ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headwind</td>
<td>Calm</td>
</tr>
<tr>
<td>Temperature</td>
<td>101°F</td>
</tr>
</tbody>
</table>

   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 36.) Approximately what true airspeed should a pilot expect with 65 percent maximum continuous power at 9,500 feet with a temperature of 36°F below standard?

   A. 163 KTS.
   B. 161 KTS.
   C. 158 KTS.

   PLT012 / PA.VI.A.K3 Estimating time, speed, and distance.
6 (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.

7 (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.

8 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.

9 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.

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

11 (Refer to figure 4.) Which color identifies the normal flap operating range?
A. The yellow arc.
B. The green arc.
C. The white arc.
12. (Refer to FAA-CT-8080-2F, Figure 4.) Which marking identifies the never-exceed speed?
   A. Upper limit of the green arc.
   B. Upper limit of the white arc.
   C. The red radial line.

   PLT088 / PA.I.G.K1h Pitot-static, vacuum/pressure and associated flight instruments.

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. (Refer to FAA-CT-8080-2F, Figure 4.) What is the full flap operating range for the airplane?
   A. 55 to 100 KTS.
   B. 55 to 208 KTS.
   C. 55 to 165 KTS.

   PLT088 / PA.I.G.K1h Pitot-static, vacuum/pressure and associated flight instruments.

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

   PLT497 / PA.IX.A.K12 Transponder.

16. (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.

   PLT147 / PA.III.B.K2 Airport markings, lighting, wind indicators.

17. 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.

   PLT141 / PA.II.D.K2 Airport markings (including hold short lines), signs, and lights.
18 (Refer to FAA-CT-8080-2F, Figure 65.) Which marking indicates a vehicle lane?

A. A.  
B. C.  
C. E.  

PLT141 / PA.II.D.K2 Airport markings (including hold short lines), signs, and lights.

19 (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.  

PLTO77 / PA.II.D.K2 Airport markings (including hold short lines), signs, and lights.

20 The radius of the procedural outer area of Class C airspace is normally

A. 10 NM.  
B. 20 NM.  
C. 30 NM.  

PLT161 / PA.I.E.K2 Charting symbology

21 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

22 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.

23 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.
24 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.

25 A lack of orientation with regard to the position, attitude, or movement of the aircraft in space is defined as
A. spatial disorientation.
B. hyperventilation.
C. hypoxia.

PLT334 / PA.I.H.K1d The symptoms, recognition, causes, effects, and corrective actions associated with: spatial disorientation.

26 What antidotal phrase can help reverse the hazardous attitude of impulsivity?
A. Do it quickly to get it over with.
B. It could happen to me.
C. Not so fast, think first.

PLT103 / PA.I.H.R6 Hazardous attitudes.

27 A pilot and two passengers landed on a 2,100 foot east-west gravel strip with an elevation of 1,800 feet. The temperature is warmer than expected and after computing the density altitude it is determined the takeoff distance over a 50 foot obstacle is 1,980 feet. The airplane is 75 pounds under gross weight. What would be the best choice?
A. Taking off into the headwind will give the extra climb-out time needed.
B. Try a takeoff without the passengers to make sure the climb is adequate.
C. Wait until the temperature decreases, and recalculate the takeoff performance.

PLT011 / PA.I.H.R2 Personal risk factors and the conflict between being goal oriented and adhering to personal limitations.

28 A pilot experiencing the effects of hyperventilation should be able to restore the proper carbon dioxide level in the body by
A. slowing the breathing rate, breathing into a paper bag, or talking aloud.
B. breathing spontaneously and deeply or gaining mental control of the situation.
C. increasing the breathing rate in order to increase lung ventilation.

PLT332 / PA.I.H.K1b The symptoms, recognition, causes, effects, and corrective actions associated with: hyperventilation.
29 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.

30 (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.

31 (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.

32 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.

33 (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.
34 (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.

35 (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 enroute expressed in hours and minutes.
B. The estimated time in enroute expressed in hours and minutes.
C. The total amount of usable fuel onboard expressed in hours and minutes.

36 (Refer to FAA-CT-8080-2F, Figure 53.) What is the recommended communications procedure for landing at Lincoln Municipal during the hours when the tower is not in operation?
A. Monitor airport traffic and announce your position and intentions on 118.5 MHz.
B. Contact UNICOM on 122.95 MHz for traffic advisories.
C. Monitor ATIS for airport conditions, then announce your position on 122.95 MHz.

37 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° 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.

38 (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.

39 What information is contained in the Notices to Airmen Publication (NTAP)?
A. Current NOTAM (D) and FDC NOTAMs.
B. All current NOTAMs.
C. Current Airport/Facility Directory information and FDC NOTAMs.
40 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.

41 With respect to the certification of aircraft, which is a category of aircraft?

A. Gyroplane, helicopter, airship, free balloon.
B. Airplane, rotorcraft, glider, lighter-than-air.

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

42 The width of a federal airway from either side of the centerline is

A. 4 nautical miles.
B. 6 nautical miles.
C. 8 nautical miles.

PLT162 / PA.I.D.K8  Symbology found on VFR charts.

43 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.

44 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.

45 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.

46 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.

47 (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.

48 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.

49 To best determine general forecast weather conditions covering a flight information region, the pilot should refer to

A. aviation area forecasts.
B. weather depiction charts.
C. satellite maps.

50 (Refer to FAA-CT-8080-2F, Figure 16.) What is the outlook for the southern half of Indiana after 0700Z?

A. Marginal VFR.
B. IFR.
C. VFR.

51 (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.
52 (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.

53 (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.

54 The boundary between two different air masses is referred to as a
A. frontolysis.
B. frontogenesis.
C. front.

55 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.

56 (Refer to FAA-CT-8080-2F, Figure 35.) Determine the aircraft loaded moment and the aircraft category.

<table>
<thead>
<tr>
<th>WEIGHT (LB)</th>
<th>MOM/1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empty weight</td>
<td>1,350</td>
</tr>
<tr>
<td>Pilot and front passenger</td>
<td>380</td>
</tr>
<tr>
<td>Fuel, 48 gal</td>
<td>288</td>
</tr>
<tr>
<td>Oil, 8 qt</td>
<td></td>
</tr>
</tbody>
</table>

A. 78.2, normal category.
B. 79.2, normal category.
C. 80.4, utility category.
57  (Refer to FAA-CT-8080-2F, Figures 33 and 34.) What effect does a 35-gallon fuel burn (main tanks) have on the weight and balance if the airplane weighed 2,890 pounds and the MOM/100 was 2,452 at takeoff?

A. Weight is reduced by 210 pounds and the CG is aft of limits.
B. Weight is reduced by 210 pounds and the CG is unaffected.
C. Weight is reduced to 2,680 pounds and the CG moves forward.

PLT021 / PA.I.F.S1  Given scenario, compute weight and balance, including practical techniques to resolve out-of-limits calculations.

58  (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?

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.

PLT021 / PA.I.F.S1  Given scenario, compute weight and balance, including practical techniques to resolve out-of-limits calculations.

59  (Refer to FAA-CT-8080-2F, Figures 33 and 34.) Upon landing, the front passenger (180 pounds) departs the airplane. A rear passenger (204 pounds) moves to the front passenger position. What effect does this have on the CG if the airplane weighed 2,690 pounds and the MOM/100 was 2,260 just prior to the passenger transfer?

A. The CG moves forward approximately 3 inches.
B. The weight changes, but the CG is not affected.
C. The CG moves forward approximately 0.1 inch.

PLT021 / PA.I.F.S1  Given scenario, compute weight and balance, including practical techniques to resolve out-of-limits calculations.

60  (Refer to FAA-CT-8080-2F, Figures 33 and 34.) With the airplane loaded as follows, what action can be taken to balance the airplane?

- Front seat occupants: 411 lb
- Rear seat occupants: 100 lb
- Main wing tanks: 44 gal

A. Fill the auxiliary wing tanks.
B. Add a 100-pound weight to the baggage compartment.
C. Transfer 10 gallons of fuel from the main tanks to the auxiliary tanks.

PLT021 / PA.I.F.S1  Given scenario, compute weight and balance, including practical techniques to resolve out-of-limits calculations.