

Date effective: October 15, 2018

The following sample questions for Airline Transport Pilot Single Engine Class rating (135) (ATS) are suitable study material for the ATP airplane single engine certificate tests. The full ATS test is 90 questions and may have a variable number of validation (non-credit) questions interspersed throughout the test. Answer all of the questions to the best of your ability. Please note that the ATP (ATM) and Aircraft Dispatcher (ADX) tests share many questions. Students for the ATS, ATM and ADX would do well to study all sets of 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-8080-7C, Computer Testing Supplement for Airline Transport Pilot and Aircraft Dispatcher, and its 3 addendums are available at http://www.faa.gov/training_testing/testing/supplements/media/FAA-CT-8080-7C.pdf.

Addendum A, July 2011

http://www.faa.gov/training_testing/testing/supplements/media/Addendum_A_ATP_Sup_7C.pdf

Addendum B, May 2012

http://www.faa.gov/training_testing/testing/supplements/media/Addendum_B_ATP_Sup_7C.pdf

Addendum C, March 2014

http://www.faa.gov/training_testing/testing/supplements/media/Addendum_C_ATP_Sup_7C.pdf

The Learning Statement Reference Guide for Airman Knowledge Testing contains listings of learning statements with their associated codes. Matching the learning statement codes with the codes listed on your Airman Knowledge Test Report 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.

Sample ATS Questions:

1 . PLT128

Even a small amount of frost, ice, or snow may

- A) increase takeoff performance.
- B) hinder lift production to a point where takeoff will be impossible.
- C) decrease takeoff ground run.

2 . PLT124

How does V_s (KTAS) speed vary with altitude?

- A) Remains the same at all altitudes.
- B) Varies directly with altitude.
- C) Varies inversely with altitude.

3 . PLT473

What is the purpose of an elevator trim tab?

- A) Modify the downward tail load for various airspeeds in flight eliminating flight-control pressures.
- B) Adjust the speed tail load for different airspeeds in flight allowing neutral control forces.
- C) Provide horizontal balance as airspeed is increased to allow hands-off flight.

4 . PLT245

How can turbulent air cause an increase in stalling speed of an airfoil?

- A) A decrease in angle of attack.
- B) An abrupt change in relative wind.
- C) Sudden decrease in load factor.

5 . PLT477

The stall speed of an airplane

- A) is constant regardless of weight or airfoil configuration.
- B) is affected by weight and bank angle.
- C) is not affected by dynamic pressures and lift co-efficient.

6 . PLT213

Identify the type stability if the aircraft attitude tends to move farther from its original position after the controls have been neutralized.

- A) Negative static stability.
- B) Negative dynamic stability.
- C) Positive static stability.

7 . PLT303

What is the effect on total drag of an aircraft if the airspeed decreases in level flight below that speed for maximum L/D?

- A) Drag increases because of increased parasite drag.
- B) Drag decreases because of lower induced drag.
- C) Drag increases because of increased induced drag.

8 . PLT170

Approaching the runway 1° below glidepath can add how many feet to the landing distance?

- A) 250 feet.
- B) 500 feet.
- C) 1,000 feet.

9 . PLT248

What result does a level turn have on the total lift required and load factor with a constant airspeed?

- A) Lift required remains constant, and the load factor increases.
- B) Both total lift required and load factor increase.
- C) Lift required increases, and the load factor decreases.

10 . PLT248

What is the relationship of the rate of turn with the radius of turn with a constant angle of bank but increasing airspeed?

- A) Rate will decrease and radius will increase.
- B) Rate and radius will increase.
- C) Rate will increase and radius will decrease.

11 . PLT237

By changing the angle of attack of a wing, the pilot can control the airplane's

- A) lift, gross weight, and drag.
- B) lift and airspeed, but not drag.
- C) lift, airspeed, and drag.

12 . PLT103

Accident prone pilots tend to

- A) have disdain toward rules.
- B) follow methodical information gathering techniques.
- C) excessively utilize outside resources.

13 . PLT104

An experienced pilot trying to meet a schedule

- A) can expect the flight crew to alert them to problems or areas of concern.
- B) will always err on the side of caution.
- C) can fail to perceive operational pitfalls.

14 . PLT104

Automation has been found to

- A) create much larger errors at times.
- B) improve crew situational awareness skills.
- C) substitute for a lack of aviation experience.

15 . PLT149

As you rolled out long on Runway 30 after landing at Long Beach (LGB) (figures 241 and 242), you slowed and turned left on very wide pavement and now see Taxiway D signs on both sides of your pavement. You notice your heading is about 250°. Tower is urging you to turn left on D, cross 16R/34L, then taxi to G and hold short of Runway 30. You now know you

- A) exited onto Runway 25R and transited HS 2.
- B) exited onto Taxiway G.
- C) exited at Taxiway J and transited HS 4.

16 . PLT370

An ATC 'instruction'

- A) is the same as an ATC 'clearance.'
- B) must be 'read back' in full to the controller and confirmed before becoming effective.
- C) is a directive issued by ATC for the purpose of requiring a pilot to take a specific action.

17 . PLT171

What action should a pilot take if asked by ARTCC to "VERIFY 9,000" and the flight is actually maintaining 8,000?

- A) Immediately climb to 9,000.
- B) Report maintaining 8,000.
- C) Report climbing to 9,000.

18 . PLT058

(Refer to FAA-CT-8080-7C, Appendix 2, Figure 171, top panel.) The facility (Kankakee) that is located 9 miles NE of Chicago Midway or 27 miles SSE of Northbrook (OBK) is a/an

- A) Aeronautical Radio Inc. (ARINC) transmitter.
- B) Flight Service, Remote Communications Outlet.
- C) Automated Weather Observing System (AWOS/ASOS) with frequency.

19 . PLT370

What minimum information does an abbreviated departure clearance `cleared as filed` include?

- A) Clearance limit, transponder code, and DP, if appropriate.
- B) Destination airport, en route altitude, transponder code, and DP, if appropriate.
- C) Clearance limit and en route altitude.

20 . PLT141

Taxiway Centerline Lead-Off Lights are color coded to warn pilots that

- A) they are within the runway environment or run-up danger critical area.
- B) they are within the runway environment or ILS critical area.
- C) they are within the taxiway end environment or ILS critical area.

21 . PLT078

Which of the following reports should always be reported to ATC?

- A) Preferred runway choice to limit taxi time.
- B) When true air speed (TAS) varies by 10 percent or 5 knots, whichever is less.
- C) When leaving an assigned holding fix.

22 . PLT044

When ATC issues a clearance to descend "at pilot's discretion," the pilot

- A) can descend when the pilot wishes.
- B) can climb back to the original altitude, if needed.
- C) must maintain a descent rate of 2,000 ft/min.

23 . PLT011

(Refer to FAA-CT-8080-7C, Addendum B, Figure 339 and Addendum C, Figure 392.) With Runway 10 expected for takeoff and an OAT of 30°C, you calculate maximum torque for takeoff to be

- A) 1855 ft/lbs.
- B) 1800 ft/lbs.
- C) 1865 ft/lbs.

24 . PLT011

(Refer to FAA-CT-8080-7C, Addendum B, Figure 298 and Addendum C, Figures 394 and 395.) With an OAT of 30°C, inertial separator normal and an 12 knot headwind, you calculate the short field takeoff distance to clear a 50 foot obstacle distance to be

- A) 2,435 feet.
- B) 3,933 feet.
- C) 4,370 feet.

25 . PLT004

(Refer to FAA-CT-8080-7C, Addendum C, Figure 399.) With an OAT of 15 °C, inertial separator in Bypass, and a gross weight of 8,750 pounds, you calculate the fuel to takeoff and climb to 12,000 feet to be

- A) 105 lbs.
- B) 112 lbs.
- C) 147 lbs.

26 . PLT008

(Refer to FAA-CT-8080-7C, Addendum B, Figure 298 and Addendum C, Figures 401 and 402.) With an OAT of 30 °C, inertial separator in Normal, 10 knots of headwind, and a gross weight of 8,500 pounds, you calculate the landing roll to be about

- A) 1,080 feet.
- B) 1,044 lbs.
- C) 2,140 feet.

27 . PLT004

(Refer to FAA-CT-8080-7C, Addendum C, Figure 398.) With an OAT of 20 °C, inertial separator in Normal, and a gross weight of 8,750 pounds, you calculate the climb gradient at 8,000 feet to be

- A) 495 FT/NM.
- B) 475 FT/NM.
- C) 330 FT/NM.

28 . PLT121

What is the maximum allowable weight that may be carried on a pallet which has the dimensions of 96.1 X 133.3 inches?

Floor load limit = 249 lb/sq ft

Pallet weight = 347 lb

Tiedown devices = 134 lb

- A) 21,669.8 pounds.
- B) 22,120.8 pounds.
- C) 21,803.8 pounds.

29 . PLT144

What effect, if any, will landing at a higher-than-recommended touchdown speed have on hydroplaning?

- A) Increases hydroplaning potential regardless of braking.
- B) No effect on hydroplaning, but increases landing roll.
- C) Reduces hydroplaning potential if heavy braking is applied.

30 . PLT332

Which is a common symptom of hyperventilation?

- A) Increased vision keenness.
- B) Decreased breathing rate.
- C) Tingling of the hands, legs, and feet.

31 . PLT097

What is a symptom of carbon monoxide poisoning?

- A) Rapid, shallow breathing.
- B) Dizziness.
- C) Pain and cramping of the hands and feet.

32 . PLT280

The illusion of being in a nose up attitude which may occur during a rapid acceleration takeoff is known as

- A) somatogravic illusion.
- B) autokinesis.
- C) inversion illusion.

33 . PLT280

Sudden penetration of fog can create the illusion of

- A) leveling off.
- B) pitching up.
- C) pitching down.

34 . PLT205

What is the effect of alcohol consumption on functions of the body?

- A) Alcohol has an adverse effect, especially as altitude increases.
- B) Alcohol has little effect if followed by an ounce of black coffee for every ounce of alcohol.
- C) Small amounts of alcohol in the human system increase judgment and decision-making abilities.

35 . PLT301

What characterizes a ground-based inversion?

- A) Cold temperatures.
- B) Poor visibility.
- C) Convection currents at the surface.

36 . PLT512

Large areas of land

- A) tend to increase temperature variations.
- B) do not influence the troposphere.
- C) minimize temperature variations.

37 . PLT475

If squalls are reported at the destination airport, what wind conditions exist?

- A) Sudden increases in wind speed of at least 15 knots to a sustained wind speed of 20 knots, lasting for at least 1 minute.
- B) Rapid variation in wind direction of at least 20° and changes in speed of at least 10 knots between peaks and lulls.
- C) A sudden increase in wind speed of at least 16 knots, the speed rising to 22 knots or more for 1 minute or longer.

38 . PLT108

Freezing Point Depressant (FPD) fluids used for deicing

- A) on the ground, cause no performance degradation during takeoff.
- B) provide ice protection during flight.
- C) are intended to provide ice protection on the ground only.

39 . PLT274

When you hear a SIGMET on an ATC frequency forecasting severe icing conditions on the route to your destination, you plan for

- A) the installed transport category airplane ice protection system protecting against all types and levels of icing as designed.
- B) very little airframe icing because of an OAT of -10°C or colder, the moisture is already frozen and cannot adhere to airplane surfaces.
- C) the possibility of freezing rain and freezing drizzle that can accumulate on and beyond the limits of any system.

40 . PLT475

Where do squall lines most often develop?

- A) Ahead of a cold front.
- B) In an occluded front.
- C) Behind a stationary front.

41 . PLT493

Which conditions result in the formation of frost?

- A) The temperature of the collecting surface is at or below freezing and small droplets of moisture are falling.
- B) Temperature of the collecting surface is below the dewpoint and the dewpoint is also below freezing.
- C) Dew collects on the surface and then freezes because the surface temperature is lower than the air temperature.

42 . PLT302

Where are jetstreams normally located?

- A) In a break in the tropopause where intensified temperature gradients are located.
- B) In areas of strong low pressure systems in the stratosphere.
- C) In a single continuous band, encircling the Earth, where there is a break between the equatorial and polar tropopause.

43. PLT087

(Refer to FAA-CT-8080-7C, Appendix 2, figure 123.) You receive this ATC clearance:
`...CLEARED TO THE ABC VORTAC. HOLD SOUTH ON THE ONE EIGHT ZERO RADIAL...`

What is the recommended procedure to enter the holding pattern?

- A) Direct only.
- B) Parallel only.
- C) Teardrop only.

44 . PLT148

Airport touchdown zone lighting (TDZL) has

- A) two rows of transverse light bars disposed symmetrically about the runway centerline.
- B) alternate white and green centerline lights extending from 75 feet from the threshold through the touchdown zone.
- C) flush centerline lights spaced at 50-foot intervals extending through the touchdown zone.

45 . PLT047

When using a flight director system, what rate of turn or bank angle should a pilot observe during turns in a holding pattern?

- A) 3° per second or 25° bank, whichever is less.
- B) 1-1/2° per second or 25° bank, whichever is less.
- C) 3° per second or 30° bank, whichever is less.

46 . PLT354

A GPS missed approach requires that the pilot take action to sequence the receiver

- A) over the MAWP.
- B) after the MAWP.
- C) just prior to the MAWP.

47 . PLT195

With no traffic identified by TCAS when in 10 miles of visibility, you

- A) can rest assured that no other aircraft is near.
- B) must continually scan for other traffic.
- C) must scan only for hot air balloons and gliders.

48 . PLT162

A minimum instrument altitude for en route operations off of published airways which provides obstruction clearance of 1,000 feet in non-mountainous terrain areas and 2,000 feet in designated mountainous areas within the United States is called

- A) Minimum Obstruction Clearance Altitude (MOCA).
- B) Minimum Safe/Sector Altitude (MSA).
- C) Off-Route Obstruction Clearance Altitude (OROCA).

49 . PLT141

(Refer to FAA-CT-8080-7C, Appendix 2, Figure 131.) What is the runway distance remaining at `C` for a takeoff on runway 9?

- A) 1,000 feet.
- B) 1,800 feet.
- C) 1,500 feet.

50 . PLT208

(Refer to FAA-CT-8080-7C, Appendix 2, Figure 112.) What action should the pilot take if communications were lost during the Cugar Four Arrival, after turning on the 305 radial of IAH?

- A) Proceed direct to IAH VORTAC, then outbound on the IAH R-125 for a procedure turn for final approach.
- B) Proceed direct to IAH VORTAC, then to either IAF on the IAH 10 DME Arc to final approach.
- C) From BANTY INT, proceed to the IAF on the IAH R-290, then continue on the IAH 10 DME Arc to final approach.

51 . PLT083

(Refer to FAA-CT-8080-7C, Appendix 2, Figure 259.) Which approach lighting is available for RWY 33R?

- A) MIRL.
- B) TDZ and CL.
- C) MALS with RAIL.

52 . PLT049

(Refer to FAA-CT-8080-7C, Appendix 2, Figure 273.) The touchdown zone elevation of the ILS RWY 25L approach at Phoenix Sky Harbor Intl is

- A) 1,126 feet.
- B) 1,135 feet.
- C) 1,458 feet.

53 . PLT389

A pilot employed by an air carrier and/or commercial operator may conduct GPS/WAAS instrument approaches

- A) if they are not prohibited by the FAA-approved aircraft flight manual and the flight manual supplement.
- B) only if approved in their air carrier/commercial operator operations specifications.
- C) only if the pilot was evaluated on GPS/WAAS approach procedures during their most recent proficiency check.

54 . PLT432

“Operational control” of a flight refers to

- A) exercising the privileges of pilot in command of an aircraft.
- B) the specific duties of any required crewmember.
- C) exercising authority over initiating, conducting, or terminating a flight.

55 . PLT147

A pilot approaching to land at a class D airport in a turbine-powered airplane on a runway served by a VASI shall

- A) maintain an altitude at or above the glide slope until a lower altitude is necessary for a safe landing.
- B) use the VASI only when weather conditions are below basic VFR.
- C) not use the VASI unless a clearance for a VASI approach is received.

56 . PLT463

How soon after the conviction for driving while intoxicated by alcohol or drugs shall it be reported to the FAA, Civil Aviation Security Division?

- A) No later than 60 days after the motor vehicle action.
- B) No later than 30 working days after the motor vehicle action.
- C) Required to be reported upon renewal of medical certificate.

57 . PLT463

A person may not act as a crewmember of a civil aircraft if alcoholic beverages have been consumed by that person within the preceding

- A) 12 hours.
- B) 24 hours.
- C) 8 hours.

58 . PLT388

For what purpose may cockpit voice recorders and flight data recorders NOT be used?

- A) Identifying procedures that may have been conducive to any accident, or occurrence resulting in investigation under NTSB Part 830.
- B) Determining causes of accidents and occurrences under investigation by the NTSB.
- C) Determining any certificate action, or civil penalty, arising out of an accident or occurrence.

59 . PLT420

What minimum ground visibility may be used instead of a prescribed visibility criteria of RVR 16 when that RVR value is not reported?

- A) 1/4 SM.
- B) 1/2 SM.
- C) 3/4 SM.

60 . PLT405

An approved minimum equipment list or FAA Letter of Authorization allows certain instruments or equipment to be inoperative

- A) prior to beginning a flight in an aircraft if prescribed procedures are followed.
- B) anytime with no other documentation required or procedures to be followed.
- C) for a one-time ferry flight of a large airplane to a maintenance base without further documentation from the operator or FAA with passengers on board.

61 . PLT429

When is DME or suitable RNAV required for an instrument flight?

- A) Above 12,500 feet MSL.
- B) In terminal radar service areas.
- C) At or above 24,000 feet MSL if VOR navigational equipment is required.

62 . PLT420

When must the pilot initiate a missed approach procedure from an ILS approach?

- A) At the DA/DH, if the visual references for the intended runway are not distinctly visible, or anytime thereafter that visual reference is lost.
- B) When the time has expired after reaching the DA/DH and the runway environment is not clearly visible.
- C) At the DA/DH when the runway is not clearly visible.

63 . PLT420

The visibility criteria for a particular instrument approach procedure is RVR 40. What minimum ground visibility may be substituted for the RVR value?

- A) 3/4 SM.
- B) 1/2 SM.
- C) 1/4 SM.

64 . PLT076

(Refer to FAA-CT-8080-7C, Appendix 2, Figure 149.) What will be the wind and temperature trend for an SAT ELP TUS flight at 16,000 feet?

- A) Temperature decrease slightly.
- B) Wind direction shift from southwest to east.
- C) Windspeed decrease.

65 . PLT240

What are some characteristics of an airplane loaded with the CG at the aft limit?

- A) Lowest stall speed, lowest cruise speed, and highest stability.
- B) Highest stall speed, highest cruise speed, and least stability.
- C) Lowest stall speed, highest cruise speed, and least stability.

66 . PLT518

As you approach an airport to land, you observe a convective cloud over the airport with virga below it. This could indicate

- A) smooth air.
- B) heavy rain showers.
- C) the presence of a microburst.

67 . PLT317

Maximum downdrafts in a microburst encounter may be as strong as

- A) 7,000 ft/min.
- B) 6,000 ft/min.
- C) 8,000 ft/min.

68 . PLT501

If severe turbulence is encountered, which procedure is recommended?

- A) Maintain a constant altitude.
- B) Maintain constant airspeed and altitude.
- C) Maintain a constant attitude.

69 . PLT317

(Refer to FAA-CT-808-7C, appendix 2, figure 144.) How will the aircraft in position 4 be affected by a microburst encounter?

- A) Performance increasing with a tailwind and updraft.
- B) Performance decreasing with a headwind and downdraft.
- C) Performance decreasing with a tailwind and downdraft.

70 . PLT509

Wingtip vortices created by large aircraft tend to

- A) sink below the aircraft generating the turbulence.
- B) accumulate and remain for a period of time at the point where the takeoff roll began.
- C) rise from the surface to traffic pattern altitude.