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The following sample exam for Airline Transport Pilot Multiengine Class rating (121) (ATM) is suitable study material for the ATP airplane multiengine certificate tests. The full ATM test is 125 questions and 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 ATP and ADX would do well to study both 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/test_questions/media/FAA-CT-8080-7C.pdf

Addendum A, July 2011

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

Addendum B, May 2012

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

Addendum C, March 2014

http://www.faa.gov/training_testing/testing/test_questions/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 ATM Exam:

1 . PLT103

When a recently certificated pilot decides to not wait any longer for the fog and low ceilings to lift, this pilot may be exhibiting the hazardous

- A) resigned attitude.
- B) macho attitude.
- C) impulsive attitude.

2 . PLT104

An air carrier aircraft flown into the ground while the crew is troubleshooting a landing gear fault is an example of

- A) neglect and reliance on memory.
- B) loss of situational awareness.
- C) lack of aviation experience.

3 . PLT103

Accident prone pilots tend to

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

4 . PLT104

Automation has been found to

- A) create higher workloads in terminal areas.
- B) improve crew situational awareness skills.
- C) substitute for a lack of aviation experience.

5 . PLT506

The maximum speed during takeoff that the pilot may abort the takeoff and stop the airplane within the accelerate-stop distance is

- A) VEF.
- B) V1.
- C) V2.

6 . PLT395

What is the name of an area beyond the end of a runway which does not contain obstructions and can be considered when calculating takeoff performance of turbine-powered aircraft?

- A) Stopway.
- B) Obstruction clearance plane.
- C) Clearway.

7 . 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.

8 . PLT493

What action is required prior to takeoff if snow is adhering to the wings of an air carrier airplane?

- A) Add 15 knots to the normal VR speed as the snow will blow off.
- B) Sweep off as much snow as possible and the residue must be polished smooth.
- C) Assure that the snow is removed from the airplane.

9 . PLT409

You are traveling deadhead to or from a duty assignment. How does this affect the computation of flight time limits for air carrier flight crewmembers? It is

- A) not considered to be part of a rest period.
- B) considered part of the rest period for flight crew members.
- C) considered part of the rest period if the flightcrew includes more than two pilots.

10 . PLT444

Assuring that appropriate aeronautical charts are aboard an aircraft is the responsibility of the

- A) first officer.
- B) pilot in command.
- C) aircraft dispatcher.

11 . PLT029

Except when in cruise flight, below what altitude are non-safety related cockpit activities by flight crewmembers prohibited?

- A) FL 180.
- B) 14,500 feet.
- C) 10,000 feet.

12 . PLT436

If a required instrument on a multiengine airplane becomes inoperative, which document required under 14 CFR part 121 dictates whether the flight may continue en route?

- A) A Master Minimum Equipment List for the airplane.
- B) Certificate holder's manual.
- C) Original dispatch release.

13 . PLT404

For a flight over uninhabited terrain, an airplane operated by a flag or supplemental air carrier must carry enough appropriately equipped survival kits for

- A) all passenger seats.
- B) all aircraft occupants.
- C) all of the passengers, plus 10 percent.

14 . PLT449

A pilot in command operating under 14 CFR part 121 must complete a proficiency check or simulator training within the preceding

- A) 24 calendar months.
- B) 6 calendar months.
- C) 12 calendar months.

15 . PLT436

Which 14 CFR part 121 required document includes descriptions of the required crewmember functions to be performed in the event of an emergency?

- A) Airplane Flight Manual.
- B) Pilot's Emergency Procedures Handbook.
- C) Certificate holder's manual.

16 . 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.

17 . 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.

18 . 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.

19 . 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.

20 . 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.

21 . PLT450

An example of air carrier experience a pilot may use towards the 1,000 hours required to serve as PIC in part 121 is flight time as an SIC

- A) in part 121 operations.
- B) in part 91, subpart K operations.
- C) in part 135 operations.

22 . PLT450

The holder of an ATP certificate with restricted privileges or an ATP certificate who also holds an aircraft type rating for the aircraft to be flown may act as

- A) a PIC for a part 121 supplemental air carrier.
- B) a PIC for a part 121 air carrier with 500 hours as a part 121 SIC.
- C) an SIC for a part 121 air carrier.

23 . PLT161

The maximum indicated airspeed that an aircraft may be flown in Class B airspace, after departing the primary airport, while at 1,700 feet AGL and 3.5 nautical miles from the airport is

- A) 250 knots.
- B) 200 knots.
- C) 230 knots.

24 . 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.

25 . PLT523

Which is a purpose of wing-mounted vortex generators?

- A) Delays the onset of drag divergence at high speeds and aids in maintaining aileron effectiveness at high speeds.
- B) Breaks the airflow over the wing so the stall will progress from the root out to the tip of the wing.
- C) Increase the onset of drag divergence and aid in aileron effectiveness at low speed.

26 . PLT473

Which is a purpose of ground spoilers?

- A) Aid in rolling an airplane into a turn.
- B) Increase the rate of descent without gaining airspeed.
- C) Reduce the wings' lift upon landing.

27 . 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.

28 . PLT134

One typical takeoff error is

- A) delayed rotation which may extend the climb distance.
- B) premature rotation which may increase takeoff distance.
- C) extended rotation which may degrade acceleration.

29 . 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.

30 . PLT347

Which engine is the `critical` engine of a twin-engine airplane?

- A) The engine whose failure has the most adverse effect on directional control.
- B) The engine whose failure has the least adverse effect on directional control.
- C) The engine that is operating when used by the manufacturer to determine V_{mc} .

31 . PLT266

Swept wings causes a significant

- A) increase in effectiveness of flaps.
- B) reduction in effectiveness of flaps.
- C) flap actuation reliability issue.

32 . 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.

33 . 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.

34 . 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.

35 . 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.

36 . PLT519

What is a purpose of flight spoilers?

- A) Increase the camber of the wing.
- B) Direct airflow over the top of the wing at high angles of attack.
- C) Increase the rate of descent without increasing airspeed.

37 . PLT214

What is the result of a shock-induced separation of airflow occurring symmetrically near the wing root of a sweptwing aircraft?

- A) A high-speed stall and sudden pitchup.
- B) Severe porpoising.
- C) A severe moment or `Mach tuck.`

38 . 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.

39 . PLT094

The increase in specific range with altitude of the turbojet airplane can be attributed to three factors. One of those factors is

- A) an increase in altitude in the troposphere results in higher energy air flow.
- B) an increase in proportion of velocity versus thrust required.
- C) decreased engine turbine speeds.

40 . 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.

41 . PLT172

Precision Runway Monitoring (PRM) is

- A) an airborne RADAR system for monitoring approaches to two runways.
- B) a RADAR system for monitoring approaches to closely spaced parallel runways.
- C) a high update rate RADAR system for monitoring multiple aircraft ILS approaches to a single runway.

42 . PLT140

A Land and Hold Short Operations (LAHSO) clearance that the pilot accepts

- A) does not preclude a rejected landing.
- B) precludes a rejected landing.
- C) must result in a landing.

43 . 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.

44 . PLT083

(Refer to appendix 2, Figures 255A, 255B, 256, 257 and 257A.) If the glide slope indication is lost upon passing LIMMA INT on the ILS RWY 25L approach at LAX, what action should the pilot take?

- A) Continue to the MAP, and execute the missed approach as indicated.
- B) Continue the approach as an LOC, and add 100 feet to the DH.
- C) Immediately start the missed approach left turn to CATLY INT.

45 . 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.

46 . 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.

47 . PLT195

Each pilot who deviates from an ATC clearance in response to a TCAS II, resolution advisory (RA) is expected to

- A) maintain the course and altitude resulting from the deviation, as ATC has radar contact.
- B) notify ATC of the deviation as soon as practicable.
- C) request ATC clearance for the deviation.

48 . PLT058

(Refer to 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.

49 . PLT149

What special consideration is given for turbine-powered aircraft when 'gate hold' procedures are in effect?

- A) They are expected to be ready for takeoff when they reach the runway or warmup block.
- B) They are expected to be ready for takeoff prior to taxi and will receive takeoff clearance prior to taxi.
- C) They are given preference for departure over other aircraft.

50 . PLT391

You notice ATC is unusually quiet and one of your VHF transmit lights is illuminated, you suspect

- A) your VHF receiver is inoperative.
- B) your VHF transmitter is keyed and you probably have a stuck microphone.
- C) the radio is performing a self-test function.

51 . 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.

52 . PLT141

Runway Status Lights (REL) are

- A) an independent light system.
- B) automatically activated.
- C) ATC tower controlled.

53 . PLT149

You received these ATC taxi instructions: "Taxi to Runway 30 via Lima and hold short of Runway 25L." Your airplane is on the ramp by the terminal and NWS on the east side of the airport. (See figure 242.) Your taxi route

- A) requires crossing of Runway 25L at Lima.
- B) involves transiting HS 4.
- C) requires crossing Runway 34R en route to the assigned runway.

54 . PLT149

When taxiing on an airport with ASDE-X, you should

- A) operate the transponder only when the airport is under IFR or at night during your taxi.
- B) operate the transponder with altitude reporting all of the time during taxiing.
- C) be ready to activate the transponder upon ATC request while taxiing.

55 . PLT367

Before requesting RVSM clearance, each person

- A) shall correctly annotate the flight plan.
- B) must file an ICAO RVSM flight plan.
- C) should file for odd altitudes only.

56 . PLT061

KFTW UA/OV DFW/TM 1645/FL100/TP PA30/SK SCT031-TOP043/BKN060-TOP085/OVC097-TOPUNKN/WX FV00SM RA/TA 07. This pilot report to Fort Worth (KFTW) indicates

- A) the aircraft is in light rain.
- B) the ceiling at KDFW is 6,000 feet.
- C) that the top of the ceiling is 4,300 feet.

57 . 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.

58 . PLT147

A pilot of a high-performance airplane should be aware that flying a steeper-than-normal VASI glide slope angle may result in

- A) a hard landing.
- B) landing short of the runway threshold.
- C) increased landing rollout.

59 . 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.

60 . PLT008

(Refer to FAA-CT-8080-7C, Addendum B, Figure 331 and Addendum C, Figure 461.) At a weight of 73,500 pounds, the expected Landing Field Length is

- A) 6,700 feet.
- B) 5,700 feet.
- C) 6,500 feet.

61 . PLT123

(Refer to FAA-CT-8080-7C, Addendum C, Figure 465.) At a weight of 60,000 pounds with 35° flaps, the reference stall speed is

- A) 96 knots.
- B) 124 knots.
- C) 101 knots.

62 . PLT089

(Refer to FAA-CT-8080-7C, Addendum B, Figure 321 and Addendum C, Figure 471.) With a reported temperature of -5°C and gross weight of 49,000 pounds, the chart V2 value is

- A) 118 knots.
- B) 120 knots.
- C) 122 knots.

63 . PLT011

(Refer to FAA-CT-8080-7C, Addendum B, Figure 297 and Addendum C, Figure 478.) With a reported temperature of 25°C, a weight of 55,000 pounds, and a V1/VR ratio of 0.95, the accelerate-stop distance required is

- A) 5,500 feet.
- B) 4,300 feet.
- C) 5,900 feet.

64 . PLT121

(Refer to FAA-CT-8080-7C, Addendum B, Figure 321 and Addendum C Figure 458.) With a reported temperature of 15°C, a 0.8% upslope, and calm winds, the maximum permissible quick turn-around landing weight is

- A) 80,700 pounds.
- B) 72,500 pounds.
- C) 84,000 pounds.

65 . PLT011

(Refer to FAA-CT-8080-7C, Addendum B, Figure 363 and Addendum C, Figure 429.) At a reported temperature of 10°C with cowl anti-ice on and packs on, the takeoff thrust setting is

- A) 90.0%.
- B) 89.1%.
- C) 87.4%.

66 . PLT013

(Refer to FAA-CT-8080-7C, Addendum B, Figure 287 and Addendum C, Figure 421.) The winds are reported as 220/15. You compute the tailwind component hoping for a Runway 33 takeoff. You compute the tailwind to be

- A) 14 knots.
- B) 10 knots.
- C) 5 knots.

67 . PLT089

(Refer to FAA-CT-8080-7C, Addendum B, Figure 340 and Addendum C, Figure 450.) With a reported temperature of 35°C, flaps set at 8, and 5 knots of headwind at a takeoff weight of 82,300 pounds, the V1MBE is

- A) 174 knots.
- B) 171 knots.
- C) 142 knots.

68 . PLT004

(Refer to FAA-CT-8080-7C, Addendum B, Figure 273 and Addendum C, Figure 474.) With a reported temperature of 45°C and a weight of 52,000 pounds, the first segment one engine inoperative takeoff gross climb gradient is

- A) 0.020%.
- B) 0.043%.
- C) 0.032%.

69 . PLT123

(Refer to FAA-CT-8080-7C, Addendum C, Figure 466.) At a weight of 60,500 pounds with 5° flaps, the 1.3 VSR speed is

- A) 159 knots.
- B) 148 knots.
- C) 163 knots.

70 . PLT004

(Refer to FAA-CT-8080-7C, Addendum C, Figure 472.) With a gross weight of 54,500 pounds, the final takeoff climb speed is

- A) 142 knots.
- B) 145 knots.
- C) 148 knots.

71 . PLT011

(Refer to FAA-CT-8080-7C, Addendum B, Figure 297 and Addendum C, Figure 481.) With a reported temperature of 0°C, at 500 feet AGL after takeoff, and an airspeed of 145 knots IAS, the radius of turn is

- A) 6,650 feet.
- B) 8,000 feet.
- C) 9,700 feet.

72 . PLT004

(Refer to FAA-CT-8080-7C, Addendum B, Figure 273 and Addendum C, Figure 475.) With a reported temperature of 32°C, and a weight of 58,000 pounds, the second segment takeoff gross climb gradient is

- A) 0.057%.
- B) 0.062%.
- C) 0.034%.

73 . PLT008

(Refer to FAA-CT-8080-7C, Addendum C, Figure 460.) At a weight of 77,500 pounds, and a landing elevation below 5,000 feet, the V_{Ref} is

- A) 139 knots.
- B) 141 knots.
- C) 143 knots.

74 . PLT121

(Refer to FAA-CT-8080-7C, Addendum C, Figure 459.) For a supplemental charter, a still air range of 2,250 NM is required. The payload for this non-stop trip is

- A) 5,100 pounds.
- B) 5,600 pounds.
- C) 6,100 pounds.

75 . PLT499

Which part(s) in the turbojet engine is subjected to the high temperatures and severe centrifugal forces?

- A) Turbine wheel(s).
- B) Turbine vanes.
- C) Compressor rotor(s) or impeller(s).

76 . PLT500

Equivalent shaft horsepower (ESHP) of a turboprop engine is a measure of

- A) turbine inlet temperature.
- B) propeller thrust only.
- C) shaft horsepower and jet thrust.

77 . PLT499

The most important restriction to the operation of turbojet or turboprop engines is

- A) limiting compressor speed.
- B) limiting torque.
- C) limiting exhaust gas temperature.

78 . PLT127

As outside air pressure decreases, thrust output will

- A) remain the same since compression of inlet air will compensate for any decrease in air pressure.
- B) increase due to greater efficiency of jet aircraft in thin air.
- C) decrease due to higher density altitude.

79 . PLT104

When a pilot who is new to advanced avionics operations operates closer to personal or environmental limits,

- A) greater utilization of the aircraft is achieved.
- B) risk is increased.
- C) risk is decreased.

80 . PLT280

Sudden penetration of fog can create the illusion of

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

81 . PLT104

The lighter workloads associated with glass (digital) flight instrumentation

- A) are instrumental in decreasing training requirements.
- B) have proven to increase basic flight skills.
- C) may lead to complacency by the flightcrew.

82 . PLT097

What is a symptom of carbon monoxide poisoning?

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

83 . 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.

84 . PLT332

Which is a common symptom of hyperventilation?

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

85 . 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.

86 . PLT104

Human behavior

- A) rarely results in accidents unless deliberate actions are performed.
- B) is responsible for three out of four accidents.
- C) is well understood, so behavioral induced accidents are exceedingly rare occurrences.

87 . PLT512

Large areas of land

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

88 . PLT511

What is a feature of a stationary front?

- A) Weather conditions are a combination of strong cold front and strong warm front weather.
- B) The warm front surface moves about half the speed of the cold front surface.
- C) Surface winds tend to flow parallel to the frontal zone.

89 . PLT203

Which feature is associated with the tropopause?

- A) Absence of wind and turbulence.
- B) Abrupt change of temperature lapse rate.
- C) Absolute upper limit of cloud formation.

90 . PLT475

Where do squall lines most often develop?

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

91 . PLT495

Convective clouds which penetrate a stratus layer can produce which threat to instrument flight?

- A) Freezing rain.
- B) Embedded thunderstorms.
- C) Clear air turbulence.

92 . 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.

93 . PLT302

Which type clouds may be associated with the jetstream?

- A) Cumulonimbus cloud line where the jetstream crosses the cold front.
- B) Cirrostratus cloud band on the polar side and under the jetstream.
- C) Cirrus clouds on the equatorial side of the jetstream.

94 . 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.

95 . 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.

96 . PLT301

What characterizes a ground-based inversion?

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

97 . 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.

98 . 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.

99 . 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.

100 . PLT128

During an en route descent, both the ram air input and drain hole of the pitot system become completely blocked by ice. What airspeed indication can be expected?

- A) Increase in indicated airspeed.
- B) Indicated airspeed remains at the value prior to icing.
- C) Decrease in indicated airspeed.

101 . 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.

102 . PLT354

To conduct an RNAV (GPS) approach to LPV minimums, the aircraft must be furnished with

- A) a GPS/WAAS receiver approved for an LPV approach by the AFM supplement.
- B) a GPS (TSO-C129) receiver certified for IFR operations.
- C) an IFR approach-certified system with required navigation performance (RNP) of 0.5.

103 . 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.

104 . 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.

105 . 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.

106 . 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.

107 . 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.

108 . PLT049

(Refer to FAA-CT-8080-7C, Appendix 2, Figures 202 and 206.) PTL 55 received the following clearance from Bay Approach Control. PTL 55 is cleared ILS RWY 19L at SFO, sidestep to RWY 19R. 1.3 times the V_{so} speed, of PTL 55, is 165 knots. What is the lowest minimum descent altitude (MDA) and the lowest visibility that PTL 55 may accomplish the sidestep?

- A) 340-1.
- B) 340-2.
- C) 340-1-1/2.

109 . 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) MALSR with RAIL.

110 . 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.

111 . PLT055

(Refer to FAA-CT-8080-7C, Appendix 2, Figure 121, upper panel.) On the airway J220 (BUF R-158) SE of Buffalo, the MAA is 39,000 feet. What is the MAA on J547 between BUF and PMM (lower panel)?

- A) 60,000 feet.
- B) 45,000 feet.
- C) 43,000 feet.

112 . PLT141

Takeoff hold lights (THL) are a part of the

- A) automatic runway status light system.
- B) tower operated runway stop light system.
- C) ground controller operated ramp status holding light system.

113 . PLT149

All runway hold markings consist of

- A) 2 dashed and 1 solid yellow line.
- B) 2 dashed and 2 solid yellow lines.
- C) 1 dashed and 1 solid yellow line.

114 . PLT141

The sign shown is an example of

- A) a mandatory instruction sign.
- B) runway heading notification signage.
- C) an airport directional sign

115 . 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.

116 . PLT355

(Refer to FAA-CT-8080-7C, Appendix 2, Figures 142 and 143.) To which aircraft position does HSI presentation 'D' correspond?

- A) 4.
- B) 17.
- C) 15.

117 . PLT296

An aircraft holding at an altitude of 14,000 feet should expect to operate at which holding pattern airspeed?

- A) 250 knots.
- B) 230 knots.
- C) 260 knots.

118 . PLT104

CRM training refers to

- A) the two components of flight safety and resource management, combined with mentor feedback.
- B) the three components of initial indoctrination awareness, recurrent practice and feedback, and continual reinforcement.
- C) the five components of initial indoctrination awareness, communication principles, recurrent practice and feedback, coordination drills, and continual reinforcement.

119 . PLT104

Effective CRM reinforcement depends on

- A) video and audio reviews.
- B) verbal critiques.
- C) usable feedback.

120 . PLT501

When encountering severe turbulence, you should?

- A) Slow to turbulent air penetration speed.
- B) Maintain constant airspeed and altitude.
- C) Maintain a constant altitude.

121 . 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.

122 . 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.

123 . 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.

124 . 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.

125 . 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.