

8/10/2021

IRA - Instrument Rating Airplane

The following sample questions for Instrument Rating Airplane (IRA) are suitable study material for all the Instrument Rating tests. Although these questions are airplane based they represent the same type of questions that can be found on all Instrument 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 IRA test contains 60 questions. The Application Identification, Information Verification and Authorization Requirements Matrix lists all FAA exams. It is available at 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-8080-3F, Airman Knowledge Testing Supplement for Instrument Rating is available at www.faa.gov/training_testing/testing/supplements/media/instrument_rating_akts.pdf

The questions presented here have an associated Airman Certification Standards (ACS) code. The ACS Codes link the individual question to a Task Element within the Instrument Rating-Airplane (IRA) ACS document. The IRA ACS is available at www.faa.gov/training_testing/testing/acs/media/instrument_rating_acs_change_1.pdf

The online Instrument Rating Airplane (IRA) practice test is available on the PSI website at <https://faa.psiexams.com/FAA/login>

NOTE: Some questions in the PSI Practice Test may contain the reference "Refer to FAA-CT-8080 . ." You may access the referred to supplement by opening the following link in a separate window while taking the test. www.faa.gov/training_testing/testing/supplements/media/instrument_rating_akts.pdf

1. To act as pilot in command of an aircraft under IFR, what is the minimum instrument flight experience you must have logged during the preceding six months, in the same category of aircraft?
- A. Holding procedures, intercepting and tracking courses through the use of navigation systems, and six instrument approaches.
 - B. Six hours of instrument time in any aircraft, and six instrument approaches.
 - C. Six instrument approaches, three of which must be in the same category and class of aircraft to be flown, and 6 hours of instrument time in any aircraft.

Metadata: ACSCCode : IR.I.A.K1

2. A certificated commercial pilot who carries passengers for hire at night or in excess of 50 NM is required to have at least
- A. a type rating.
 - B. a first class medical certificate.
 - C. an instrument rating in the same category and class of aircraft.

Metadata: ACSCCode : IR.I.A.K2

3. When is an IFR clearance required during VFR weather conditions?
- A. When operating in the Class E airspace.
 - B. When operating in a Class A airspace.
 - C. When operating in airspace above 14,500 feet.

Metadata: ACSCCode : IR.I.C.R3

4. A pilot is making an ILS approach and is past the OM to a runway which has a VASI. What action is appropriate if an electronic glide slope malfunction occurs and the pilot has the VASI in sight?
- A. The pilot should inform ATC of the malfunction and then descend immediately to the localizer DH and make a localizer approach.
 - B. The pilot may continue the approach and use the VASI glide slope in place of the electronic glide slope.
 - C. The pilot must request an LOC approach, and may descend below the VASI at the pilot's discretion.

Metadata: ACSCCode : IR.VI.B.K1

5. What are the alternate minimums for an airport with a precision approach procedure?

- A. 400 foot ceiling and 2 miles visibility.**
- B. 600 foot ceiling and 2 miles visibility.**
- C. 800 foot ceiling and 2 miles visibility.**

Metadata: ACSCode : IR.I.C.K1

6. If the RVR equipment is inoperative for an IAP that requires a visibility of 2,400 RVR, how should the pilot expect the visibility requirement to be reported in lieu of the published RVR?

- A. As a slant range visibility of 2,400 feet.**
- B. As an RVR of 2,400 feet.**
- C. As a ground visibility of 1/2 SM.**

Metadata: ACSCode : IR.VI.B.K1

7. MEA is an altitude which assures

- A. obstacle clearance, accurate navigational signals from more than one VORTAC, and accurate DME mileage.**
- B. a 1,000-foot obstacle clearance within 2 miles of an airway and assures accurate DME mileage.**
- C. acceptable navigational signal coverage and meets obstruction clearance requirements.**

Metadata: ACSCode : IR.I.C.K2

8. When the visibility is greater than 6 SM on a TAF, it is

- A. expressed as 6PSM.**
- B. expressed as P6SM.**
- C. omitted from the report.**

Metadata: ACSCode : IR.I.B.K2

9. In what localities is advection fog most likely to occur?

- A. Coastal areas.**
- B. Mountain slopes.**
- C. Level inland areas.**

Metadata: ACSCode : IR.I.B.K3j

10. The use of airborne weather-avoidance radar

- A. provides no assurance of avoiding instrument weather conditions.**
- B. assures the avoidance of hail.**
- C. allows you to fly safely between echoes.**

Metadata: ACSCode : IR.I.B.K4

11. (Refer to FAA-CT-8080-3F, Figure 7.) What type of weather can be expected in the red scalloped area near area 9?

- A. 2/8 to 6/8 coverage, occasional embedded thunderstorms, tops at FL 330.**
- B. 1/8 to 4/8 coverage, occasional embedded thunderstorms, maximum tops at 51,000 feet MSL.**
- C. Isolated embedded cumulonimbus with tops to FL330.**

Metadata: ACSCode : IR.I.B.K2

12. (Refer to FAA-CT-8080-3F, Figure 13.) 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 tailwind and downdraft.**
- C. Performance decreasing with a headwind and downdraft.**

Metadata: ACSCode : IR.I.B.K3h

13. Decode the excerpt from the Winds and Temperature Aloft Forecast (FB) for OKC at 39,000 feet.

FT	3000	9000	12000	24000	39000
OKC	9900	2018+00	2130-06	2361-30	830558

- A. Wind 130° at 50 knots, temperature -58 °C.**
- B. Wind 330° at 105 knots, temperature -58 °C.**
- C. Wind 330° at 205 knots, temperature -58 °C.**

Metadata: ACSCode : IR.I.C.K2

14. When does the National Weather Service release an Aviation Notification Watch Message (SAW)?

- A. At 0000 (UTC).**
- B. 0000 and 1200 (UTC).**
- C. Unscheduled and issued as required.**

Metadata: ACSCode : IR.I.B.K1

15. Interpret the remarks section of METAR surface report for KBNA.
METAR KBNA 211250Z 33018KT 290V260 1/2SM R31/2700FT +SN
BLSNFG VV008 00/M03 A2991 RMK RAESNB42

- A. The wind is variable from 290° to 360°.
- B. Heavy blowing snow and fog on runway 31.
- C. Rain ended 42 minutes past the hour, snow began 42 minutes past the hour.

Metadata: ACSCCode : IR.I.C.K2

16. If your transponder is inoperative, what are the requirements for flying in Class D airspace?

- A. The entry into Class D is prohibited.
- B. Continue the flight as planned.
- C. Pilot must immediately request priority handling to proceed to destination.

Metadata: ACSCCode : IR.II.C.K3

17. Which type of runway lighting consists of a pair of synchronized flashing lights, one on each side of the runway threshold?

- A. MALSR.
- B. HIRL.
- C. REIL.

Metadata: ACSCCode : IR.VI.E.K2

18. (Refer to FAA-CT-8080-3F, Figure 136.) An `on glidepath` indication is

- A. 8
- B. 10
- C. 11

Metadata: ACSCCode : IR.VI.E.K2

19. The greatest DME indication error between actual ground distance and displayed ground distance occurs at

- A. high altitudes far from the VORTAC.
- B. high altitudes close to the VORTAC.
- C. low altitudes far from the VORTAC.

Metadata: ACSCCode : IR.II.B.K2a

20. When flying directly over a published airborne VOR checkpoint, what is the maximum error allowed for IFR flight?

- A. Plus or minus 6° of the designated radial.**
- B. Plus or minus 4° of the designated radial.**
- C. Plus 6° or minus 4° of the designated radial.**

Metadata: ACSCCode : IR.II.B.K2a

21. During a takeoff into IMC with low ceilings, you should contact departure

- A. before entering the clouds.**
- B. when the tower instructs the change.**
- C. upon reaching traffic pattern altitude.**

Metadata: ACSCCode : IR.III.A.K1

22. While on an IFR flight plan, you should notify ATC of a variation in speed when

- A. ground speed changes more than 5 knots.**
- B. average TAS changes 10 knots or 5 percent.**
- C. ground speed changes by 10 MPH or more.**

Metadata: ACSCCode : IR.III.A.K1

23. You may cancel an IFR flight plan

- A. at any time as long as you advise ATC.**
- B. only in an emergency.**
- C. if in VMC outside class A airspace.**

Metadata: ACSCCode : IR.I.C.K5

24. ATC has approved your request for VFR-on-top while on an IFR clearance. Therefore, you

- A. should set your transponder to code 1200.**
- B. must fly appropriate IFR altitudes.**
- C. must fly appropriate VFR altitudes.**

Metadata: ACSCCode : IR.I.C.K2

25. If while in level flight, it becomes necessary to use an alternate source of static pressure vented inside the airplane, which of the following variations in instrument indications should the pilot expect?
- A. The altimeter will read lower than normal, airspeed lower than normal, and the VSI will momentarily show a descent.
 - B. The altimeter will read higher than normal, airspeed greater than normal, and the VSI will momentarily show a climb.
 - C. The altimeter will read lower than normal, airspeed greater than normal, and the VSI will momentarily show a climb and then a descent.

Metadata: ACSCCode : IR.IV.A.K3

26. You have not yet been cleared for the approach, but you are being vectored to the ILS approach course. It is clear that you will pass through the localizer course unless you take action. You should
- A. turn outbound and complete the procedure turn.
 - B. continue as assigned and query ATC.
 - C. turn inbound and join the final approach course.

Metadata: ACSCCode : IR.VI.B.K1

27. How can an initial approach fix be identified on a Standard Instrument Approach Procedure (SIAP) Chart?
- A. All fixes that are labeled "IAF" which are depicted on the plan view.
 - B. Any fix depicted that is located on the final approach course.
 - C. Any fix depicted that is located on the final approach course prior to the final approach fix.

Metadata: ACSCCode : IR.VI.B.K1

28. While performing a VFR practice instrument approach, Radar Approach Control assigns an altitude or heading that will cause you to enter the clouds. What action should you take?
- A. Continue as directed.
 - B. Advise "unable" and remain clear of clouds.
 - C. Deviate as needed; then rejoin the approach.

Metadata: ACSCCode : IR.III.A.K1

29. ATC can issue a STAR

- A. to all pilots wherever STARs are available.**
- B. only if the pilot requests a STAR in the `Remarks` section of the flight plan.**
- C. when ATC deems it appropriate, unless the pilot requests `No STAR.`**

Metadata: ACSCCode : IR.III.A.K1

30. Flying clear of clouds on an instrument flight plan, what are the requirements for a contact approach to an airport that has an approved IAP?

- A. The controller must determine that the pilot can see the airport at the altitude flown and can remain clear of clouds.**
- B. The controller must have determined that the visibility was at least 1 mile and be reasonably sure the pilot can remain clear of clouds.**
- C. The pilot must request the approach, have at least 1 mile visibility, and be reasonably sure of remaining clear of clouds.**

Metadata: ACSCCode : IR.III.A.K1

31. You are planning an IFR flight off established airways below 18,000 feet MSL. If you use VOR navigation to define the route, the maximum distance between NAVAIDS should be

- A. 40 NM.**
- B. 70 NM.**
- C. 80 NM.**

Metadata: ACSCCode : IR.I.C.K2

32. If the plan view on an approach chart does not include a procedure turn barb, that means

- A. a procedure turn is not authorized.**
- B. you should fly a teardrop entry.**
- C. a racetrack-type turn is required.**

Metadata: ACSCCode : IR.VI.B.K1

33. (Refer to FAA-CT-8080-3F, Figure 227.) Refer to the APA (Centennial) ILS RWY 35R procedure. The PFAF (Precision Final Approach Fix) intercept altitude is
- A. 7,080 feet MSL.
 - B. 7,977 feet MSL.
 - C. 8,000 feet MSL.

Metadata: ACSCode : IR.VI.B.K1

34. (Refer to FAA-CT-8080-3F, Figure 230.) The minimum safe altitude (MSA) for the VOR/DME or GPS-A at 7D3 is geographically centered on what position?
- A. DEANI intersection.
 - B. WHITE CLOUD VOR/DME.
 - C. MAJUB intersection.

Metadata: ACSCode : IR.V.B.K1

35. When using VOR for navigation, which of the following should be considered as station passage?
- A. The first movement of the CDI as the aircraft enters the zone of confusion.
 - B. The moment the TO FROM indicator becomes blank.
 - C. The first positive, complete reversal of the TO FROM indicator.

Metadata: ACSCode : IR.II.B.K2a

36. (Refer to FAA-CT-8080-3F, Figure 91.) When flying a northbound IFR flight on V257, what is the minimum crossing altitude at DBS VORTAC?
- A. 7,500 feet.
 - B. 8,600 feet.
 - C. 11,100 feet.

Metadata: ACSCode : IR.V.A.K1

37. (Refer to FAA-CT-8080-3F, Figures 61.) Determine your position relative to the glide slope and localizer course.
- A. Below the glide slope and right of the localizer course.
 - B. Above the glide slope and left of the localizer course.
 - C. Above the glide slope and right of the localizer course.

Metadata: ACSCode : IR.V.A.K1

38. (Refer to FAA-CT-8080-3F, Figure 24.) While passing near the CORTEZ VOR, southbound on V187, contact is lost with Denver Center. You should attempt to reestablish contact with Denver Center on

- A. 118.575 MHz.**
- B. 108.4 MHz.**
- C. 122.3 MHz.**

Metadata: ACSCCode : IR.VII.A.K1

39. (Refer to FAA-CT-8080-3F, Figures 174 and 175.) When DFW is landing to the north, at CURLE, expect

- A. to be instructed to maintain 200 knots.**
- B. to fly a course of 010°.**
- C. radar vectors.**

Metadata: ACSCCode : IR.V.B.K1

40. Military training routes (MTR) above 1,500 feet are depicted on

- A. IFR Planning Charts.**
- B. IFR Low Altitude En Route Charts.**
- C. IFR High Altitude En Route Charts.**

Metadata: ACSCCode : IR.I.C.K1

41. If Receiver Autonomous Integrity Monitoring (RAIM) is not available prior to beginning a GPS approach, the pilot should

- A. continue the approach, expecting to recapture the satellites before reaching the FAF.**
- B. use a navigation or approach system other than GPS for an approach.**
- C. continue to the MAP and hold until the satellites are recaptured.**

Metadata: ACSCCode : IR.VI.A.K1

42. What is the rule for a pilot receiving a "Land and Hold Short Operation (LAHSO) clearance?"

- A. The pilot is required to accept the controller`s clearance in visual meteorological conditions.**
- B. The pilot must accept the clearance if the pavement is dry and the stopping distance is adequate.**
- C. The pilot has the option to accept or reject all LAHSO clearances regardless of the meteorological conditions.**

Metadata: ACSCode : IR.V.B.R1

43. A Precision Runway Monitor (PRM) approach may require

- A. simultaneously monitoring two frequencies.**
- B. special training to monitor two ILS receivers simultaneously.**
- C. tracking performance parameters at the decision point.**

Metadata: ACSCode : IR.VI.B.K1

44. (Refer to FAA-CT-8080-3F, Figure 254.) Which of the signs in the figure is a mandatory instruction sign?

- A. Top red.**
- B. Middle yellow.**
- C. Bottom yellow.**

Metadata: ACSCode : IR.VI.E.K2

45. If you experience tunnel vision and cyanosis you may have symptoms of

- A. hypoxia.**
- B. hyperventilation.**
- C. carbon monoxide poisoning.**

Metadata: ACSCode : IR.IV.A.R1

46. If both the ram air input and drain hole of the pitot system become blocked, the indicated airspeed will

- A. increase during a climb.**
- B. decrease during a climb.**
- C. remain constant regardless of altitude change.**

Metadata: ACSCode : IR.IV.A.K3

47. (Refer to FAA-CT-8080-3F, Figure 242 and Legend 27.) You have been cleared for the RNAV (GPS) RWY 36 approach to LIT. At a groundspeed of 105 knots, what is the vertical descent angle and rate of descent on final approach?

- A. 2.82 degrees and 524 feet per minute.
- B. 3.00 degrees and 557 feet per minute.
- C. 4.00 degrees and 550 feet per nautical mile.

Metadata: ACSCCode : IR.VI.A.K1

48. If you encounter in-flight icing and ATC asks you to report your conditions, what are the official reportable icing values that you are expected to use?

- A. Light, moderate, severe, extreme.
- B. Trace, light, moderate, severe.
- C. Few, light, moderate, severe.

Metadata: ACSCCode : IR.I.B.K3i

49. On initial climb-out after takeoff and with the autopilot engaged, you encounter icing conditions. In this situation you can expect

- A. ice to accumulate on the underside of the wings due to the higher AOA.
- B. the autopilot to hold the vertical speed, if the anti-icing boots are working.
- C. the increased airflow under the wings to prevent the accumulation of ice.

Metadata: ACSCCode : IR.I.B.K3i

50. What are the requirements to log an ILS approach in VMC conditions for instrument currency?

- A. The flight must remain on an IFR flight plan throughout the approach and landing.
- B. The ILS approach can be credited only if you use a view-limiting device and log the name of the safety pilot.
- C. The ILS approach can be credited regardless of actual weather if you are issued an IFR clearance.

Metadata: ACSCCode : IR.I.A.K2

51. A generally recommended practice for autopilot usage during cruise flight in icing conditions is

- A. keeping the autopilot engaged while monitoring the system.**
- B. periodically disengaging the autopilot and hand flying the aircraft.**
- C. periodically disengaging and immediately reengaging the altitude hold function.**

Metadata: ACSCCode : IR.II.B.K2b

52. An aircraft which is equipped with an Electronic Flight Display (EFD) can

- A. compensate for an airman`s lack of skill or knowledge.**
- B. offer new capabilities and simplify the basic flying task.**
- C. improve flight awareness by allowing the pilot to simply watch for alerts**

Metadata: ACSCCode : IR.II.B.R1

53. The advancement of avionics in light general aviation airplanes has enhanced situational awareness for properly trained pilots. However, there is concern that this technology could lead to

- A. complacency.**
- B. fatigue.**
- C. resignation.**

Metadata: ACSCCode : IR.II.B.R1

54. (Refer to FAA-CT-8080-3F, Figure 162.) You have accepted a visual approach to RWY 16L at EUG at night. As you approach the runway, you notice runway centerline lights. This indicates

- A. you are on the centerline for your assigned runway.**
- B. you are too low on the approach.**
- C. you have lined up with the wrong runway.**

Metadata: ACSCCode : IR.III.A.K1

55. Unless otherwise stated, instrument procedures use the standard IFR climb gradient of

- A. 500 feet per minute.**
- B. 400 feet per nautical mile.**
- C. 200 feet per nautical mile.**

Metadata: ACSCCode : IR.V.B.K1

56. (Refer to FAA-CT-8080-3F, Figure 187.) When conducting a missed approach from the RNAV (GPS) X RWY 28L approach at PDX, what is the Minimum Safe Altitude (MSA) while maneuvering?
- A. 2,100 feet MSL.
 - B. 4,000 feet MSL.
 - C. 5,800 feet MSL.

Metadata: ACSCCode : IR.VI.A.K1

57. (Refer to FAA-CT-8080-3F, Figure 158.) With winds reported as from 330° at 4 knots, you are given instructions to taxi to runway 4 for departure and to expect takeoff after an airliner departs from runway 29. What effect would you expect from that airliner's vortices?
- A. The winds will push the vortices southeast of your takeoff path.
 - B. The upwind vortex would tend to remain over the runway.
 - C. The downwind vortex will rapidly dissipate.

Metadata: ACSCCode : IR.IV.B.R1

58. The instrument approach criteria for a Category A aircraft is based on a maximum airspeed of
- A. 100 knots.
 - B. 90 knots.
 - C. 80 knots.

Metadata: ACSCCode : IR.VI.A.K1

59. Consider this AIRMET that includes your route of flight:
DFWS WA 211445 AIRMET IFR . . . OK TX FROM END TO TXK TO HOU TO LBB TO
END CIG BELOW 010. CONDS ENDG 15-18Z

This indicates

- A. there will be icing in clouds below 10,000 feet MSL.
- B. visibility will be less than 3 SM until 15Z.
- C. the area will have low ceilings before 15Z.

Metadata: ACSCCode : IR.I.B.K2