

## BFR WRITTEN TEST B - For IFR Pilots

### (61 Questions)

(Review and study of the FARs noted in parentheses right after the question number is encouraged. This is an **open book** test!)

1. (91.3) Who is responsible for determining that the altimeter system and other required inspections have been completed and that they meet the FAR requirements for a particular flight?
  1. Owner
  2. Operator
  3. Pilot in command
  4. An FAA-certified mechanic
  
2. (91.7) If your aircraft develops a condition in flight which makes it unairworthy, you are required to \_\_\_\_\_.
  
3. (91.17) You may not act as pilot in command or as a required pilot flight crewmember if your blood alcohol level, by weight, is \_\_\_\_\_% or more.
  
4. (91.17) Regulations also prohibit you from flying as a required crewmember within how many hours after you have consumed any alcoholic beverage?
  1. 8
  2. 16
  3. 24
  4. 48
  
5. (91.103) Before beginning a VFR flight, you must become familiar with all available information concerning that flight. For an IFR flight, what additional items must you accomplish?
  1. Familiarize yourself with all of the instrument approaches at your destination airport.
  2. List an alternate airport and compute the takeoff and landing distances at your intended destination.
  3. List an alternate airport on your flight plan and familiarize yourself with the instrument approaches to that airport.
  4. Familiarize yourself with alternatives available if the planned flight cannot be completed.
  
6. (91.113) \_\_\_\_\_ (True, False) Upon entering VFR conditions while on an IFR flight plan, ATC still has sole responsibility for your separation from other air traffic.
  
7. (91.113) On an IFR flight plan, when are you required to see and avoid other aircraft?
  1. Only when you are advised by ATC.
  2. At all times when you are not in radar contact with ATC.
  3. When weather conditions permit, regardless of whether you are operating under IFR or VFR.
  4. During takeoff and landing and until established on airways, if you are not in radar contact with ATC.
  
8. (91.113) Which aircraft has the right-of-way over all other air traffic?
  1. Glider
  2. Balloon
  3. Aircraft in distress
  4. Aircraft on final approach
  
9. (91.121) When you are at or above FL180 in U.S. airspace, you are required to set your altimeter to \_\_\_\_\_ in Hg.
  
10. (91.121) If you are departing from an airport where you cannot obtain an altimeter setting, you should set your altimeter to
  1. zero.
  2. 29.92 in. Hg.
  3. the airport elevation.
  4. the current airport barometric pressure, if known.

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11. (91.123) While on an IFR flight, you have an emergency that causes you to deviate from an ATC clearance. According to regulations, what action must you take?
1. Squawk 7700.
  2. Notify ATC of the deviation as soon as possible.
  3. Request an amended clearance or cancel your IFR flight plan.
  4. Submit a detailed report of the deviation to the chief of the ATC facility within 48 hours.
12. (91.129) If you have canceled your IFR flight plan 10 miles from your controlled airport destination, when are you required to establish communications with the control tower?
1. When advised by the ARTCC.
  2. Immediately after you cancel the flight plan.
  3. Anytime prior to entering Class D airspace.
  4. At least five miles from the center of the airport.
13. (91.130) You may not operate an aircraft within Class C airspace unless
1. the aircraft is equipped with a VOR receiver.
  2. you possess at least a private pilot certificate.
  3. the aircraft has a basic 4096-code transponder.
  4. you establish and maintain two-way radio communications with ATC.
14. (91.131) For IFR operations in class B airspace, what equipment is required in addition to a VOR receiver and two-way radio communications?
1. Standby VOR, communications receiver, and DME.
  2. An operable transponder with Mode C capability.
  3. Standby communications receiver, DME, and a transponder.
  4. Another VOR, communications receiver, and a transponder.
15. (91.131) \_\_\_\_\_ (True, False) In Class B airspace, a 4096-code transponder with automatic altitude reporting equipment is not required.
16. (91.135) Regulations require an instrument rating for flight in VFR weather conditions when you are flying
1. into an ADIZ.
  2. in Class B airspace.
  3. in Class A airspace.
  4. through military operations areas.
17. (91.135) VFR-on-top operations are prohibited in
1. Class D airspace.
  2. Class B airspace.
  3. all controlled airspace.
  4. Class A airspace.
18. (91.135) An IFR clearance is required during VFR weather conditions when you are
1. practicing instrument approaches.
  2. operating in Class A airspace.
  3. operating in Class E airspace above 14,500 feet.
  4. operating in an ADIZ.
19. (91.155) What minimum flight visibility and distance from clouds are required during a VFR-on-top flight at 12,500 feet MSL (more than 1,200 feet AGL) in controlled airspace?
1. Five miles visibility and 2,000 feet horizontally from, 1,000 feet above, and 500 feet below any clouds.
  2. Five miles visibility and one mile horizontally from, 1,000 feet above, and 1,000 feet below any clouds.
  3. Three miles visibility and 2,000 feet horizontally from, 1,000 feet above, and 500 feet below any clouds.
  4. Three miles visibility and one mile horizontally from, 1,000 feet above, and 1,000 feet below any clouds.
20. (91.155) What is the minimum flight visibility and distance from clouds required for you to operate under VFR in controlled airspace at less than 1,200 feet AGL?

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1. Three miles visibility and clear of clouds.
  2. One mile flight visibility and clear of clouds.
  3. One mile visibility and 2,000 feet horizontally from, 1,000 feet above, and 1,000 feet below clouds.
  4. Three miles visibility and 2,000 feet horizontally from, 1,000 feet above, and 500 feet below clouds.
21. (91.157) What is the minimum flight visibility and distance from clouds required for a special VFR clearance?
1. One mile flight visibility and clear of clouds.
  2. Three miles flight visibility and clear of clouds.
  3. One mile flight visibility, 2,000 feet horizontally from, 1,000 feet above, and 1,000 feet below clouds.
  4. Three miles flight visibility, 2,000 feet horizontally from, 1,000 feet above, and 1,000 feet below clouds.
22. (91.159, 91.179) When you are flying with a VFR-on-top clearance, your cruising altitude is based on
1. true course.
  2. true heading.
  3. magnetic course.
  4. magnetic heading.
23. (91.159, 91.179) Below 18,000 feet MSL, what cruising altitudes would be appropriate for a westbound VFR-on-top flight?
1. Odd thousand-foot altitudes.
  2. Even thousand-foot altitudes.
  3. Odd thousand-foot altitudes plus 500 feet, but not one below the MEA.
  4. Even thousand-foot altitudes plus 500 feet, but not one below the MEA.
24. (91.167) An alternate airport is not required for an IFR flight if a ceiling of at least 2,000 feet and a visibility of three miles is forecast for the destination airport at your \_\_\_\_\_ plus or minus \_\_\_\_\_ hour(s).
25. (91.167) Assume you are on a flight in IFR conditions and the airport where you intend to land is forecast at your ETA to have a 1,500-foot ceiling and three miles visibility. The minimum fuel required in this situation is enough to fly to your destination and then fly
1. for another 45 minutes at normal cruise speed.
  2. thereafter for 30 minutes at normal cruise speed.
  3. to your alternate airport, and thereafter for 30 minutes at normal cruise speed.
  4. to your alternate airport, and thereafter for 45 minutes at normal cruise speed.

Refer to the accompanying terminal area forecast for question 26.

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TAF AMD CLE 211600Z 211615 33015KT 4SM -SHRA BKN020
FM 1800 31010KT 5SM -SHRA SCT020 BKN100
TEMPO1921 3SM TSRA BKN020
FM 2100 33010G20KT 3SM SHRA OVC020
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26. (91.169) \_\_\_\_\_ (True, False) The terminal forecast for your arrival (ETA 1700) at Cleveland Hopkins International Airport indicates that an alternate airport is not required on your IFR flight plan.
27. (91.169) Assume an airport with a precision approach procedure has standard alternate minimums. To qualify as a alternate airport, the minimum forecast conditions at your ETA must be no lower than a ceiling of \_\_\_\_\_ feet and visibility \_\_\_\_\_ miles.
28. (91.169) If an airport with a nonprecision approach has standard alternate minimums, the forecast conditions at your ETA must indicate a ceiling of at least \_\_\_\_\_ feet and visibility of \_\_\_\_\_ miles.
29. (91.169) For an airport without approved instrument approach procedures to qualify as an alternate, the minimum ceiling and visibility forecast for your ETA must
1. be at least 2,000 feet and three miles.
  2. allow descent from the MEA, approach, and landing under basic VFR.
  3. be at least 2,000 feet and three miles from two hours before until two hours after your ETA.
  4. be at least 1,000 feet above the highest obstacle and three miles from two hours before until two hours after your ETA.

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30. (91.171) For use in IFR conditions, VOR equipment must be operationally checked every \_\_\_\_\_.
31. (91.171) What type of entry must be made in the aircraft logbook or other permanent record by a pilot who has made a VOR operational check?
1. The date, place, bearing error, and signature.
  2. The date, place, satisfactory or unsatisfactory check, and signature.
  3. The date, frequency used, and bearing reading of VOR, or VOT, along with the tach reading and signature.
  4. The date, frequency of VOR or VOT, number of flight hours since the last operational check, and signature.
32. (91.171) If you are making an airborne VOR operational check, what is the maximum allowable tolerance between the two indicators of a dual VOR system?
1. Four degrees between the indicated bearing to a VOR.
  2. Six degrees between the indicated bearings to a VOR.
  3. Plus or minus four degrees when set to identical radials of a VOR.
  4. Plus or minus six degrees when set to identical radials of a VOR.
33. (91.171) If you are flying directly over an airborne VOR checkpoint, what is the maximum tolerance for the VOR indication when the CDI is centered?
1. Within four degrees of the designated radial with a TO indication.
  2. Within six degrees of the designated radial with a TO indication.
  3. Plus or minus four degrees of the designated radial with a FROM indication.
  4. Plus or minus six degrees of the designated radial.
34. (91.173) If you are departing an airport located outside of controlled airspace during IFR conditions, you must file an IFR flight plan and receive a clearance before entering \_\_\_\_\_.
35. (91.173) Filing an IFR flight plan is required before you enter which types of airspace?
1. Any airspace where the visibility is less than one mile.
  2. Class E airspace with IFR weather conditions and Class A airspace.
  3. Any airspace above 700 feet AGL, if the visibility is less than one mile.
  4. In Class A through E airspace areas, and all other airspace, if the visibility is less than 2 miles.
36. (91.175) If, during an ILS approach in IFR conditions, the approach lights are not visible upon your arrival at the DH, you are required to execute a missed approach unless you have at least \_\_\_\_\_ of the other required visual cues in sight.
37. (91.177) When no other minimum altitude is prescribed, the minimum IFR altitude over the highest obstacle in designated mountainous areas is \_\_\_\_\_ feet.
38. (91.183) The pilot in command of an aircraft on an IFR flight plan in controlled airspace is required to report
1. entering VFR conditions.
  2. changing heading onto a new airway.
  3. any unforecast weather conditions encountered.
  4. passing designated checkpoints while under radar control.
39. (91.185) Assume you enter a holding pattern at a fix that is an initial approach fix at your destination airport and you receive an EFC time of 1530. If you experience complete two-way communications failure at 1520, what procedure should you follow to execute the approach to a landing?
1. Depart the holding fix at the EFC time and complete the approach.
  2. Depart the holding fix at the EFC time, or earlier, if your flight planned ETA is before the EFC.
  3. Depart the holding fix to arrive at the final approach fix at the EFC and complete the approach.
  4. Depart the holding fix to arrive about two minutes ahead of the EFC, enter a holding pattern at the final fix, and adjust the pattern to leave the fix inbound at the EFC.
40. (91.185) What altitude and route should you use if you are flying in IFR weather conditions and have two-way radio communications failure?
1. Fly the most direct route to your destination, maintaining the highest of last assigned altitude or MEA.
  2. Descend to the MEA, and, if clear of clouds, proceed to the nearest appropriate airport. If not clear of clouds,

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maintain the highest of the MEAs along the clearance route.

3. Fly direct to an area that has been forecast to have VFR conditions. Fly at an altitude that is at least 1,000 feet above the highest obstacles along the route.

4. Continue on the route specified in your clearance. Fly an altitude that is the highest of: the last assigned altitude, the altitude ATC has informed you to expect, or the MEA.

41. (91.187) Assume your aircraft is equipped with two VOR receivers, the No. 1 receiver has VOR/LOC/GS capability, and the No. 2 has only VOR. What action, if any, should you take if your No. 1 VOR receiver malfunctions while you are operating in controlled airspace under IFR?

1. Report the malfunction immediately to ATC.
2. Continue the flight cleared; no report is required.
3. Continue the approach and request a VOR or NDB approach.
4. Report the malfunction to ATC if you do not have ADF for backup.

42. (91.203) Select the documents that are normally required to be in the airplane for flight.

- A. Airframe logbooks
- B. Proof of insurance
- C. Registration certificate
- D. Aircraft engine logbooks
- E. Airworthiness certificate

43. (91.205) According to regulations, the three flight instruments required for any VFR or IFR flight are the \_\_\_\_\_, \_\_\_\_\_ indicator, and the \_\_\_\_\_ indicator.

44. (91.205) What minimum navigation equipment is required for IFR flight?

1. VOR/LOC receiver, transponder, and DME.
2. Nav equipment compatible with the enroute ground facilities.
3. Navigational equipment appropriate to the facilities to be used.
4. VOR receiver, ADF receiver, and an altitude encoding transponder.

45. (91.205) Approved DME is required within the 50 states and the District of Columbia for U.S.-registered civil aircraft operated at or above \_\_\_\_\_ feet MSL.

46. (91.205) What should you do if you are operating in an area requiring DME and your DME fails?

1. Request an altitude below FL240 and continue to your destination.
2. Advise ATC of the failure and land at the nearest available airport where repairs can be made.
3. Notify ATC that it will be necessary for you to receive radar vectors to your destination airport.
4. Notify ATC of the failure and continue to your next airport of intended landing where repairs can be made.

47. (91.205) What aircraft equipment is required for flight under IFR?

1. Radar altimeter
2. Dual VOR system
3. Flight director system
4. Gyroscopic direction indicator

For questions 48 through 51, match the required minimum equipment listed below with the specified flight operation.

Each flight operation may have more than one answer.

48. (91.205) \_\_\_\_\_ VFR (night)

49. (91.205) \_\_\_\_\_ IFR (day)

50. (91.205) \_\_\_\_\_ IFR (night)

51. (91.205) \_\_\_\_\_ Class B airspace (day)

- A. Position lights and anticollision lights
- B. Flotation gear for each occupant and a pyrotechnic signaling device
- C. Slip-skid indicator, sensitive adjustable altimeter, rate-of-turn indicator, clock, attitude indicator, and heading indicator
- D. Radio capable of communication with ATC, appropriate radio navigation equipment, and a transponder with Mode C

52. (91.207) ELT batteries must be replaced or recharged after one cumulative hour of use or

1. after three years.
2. when the shelf life of the battery has expired.

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3. after the manufacturer's recommended replacement date.
  4. when one half of the useful life of the battery has expired.
53. (91.209) Aircraft position lights must be illuminated from
1. sunrise to sunset.
  2. sunset to sunrise.
  3. one hour after sunset to one hour after sunrise.
  4. one hour before sunset to one hour before sunrise.
54. (91.211) Supplemental oxygen must be available for each occupant of an aircraft above a cabin pressure altitude of \_\_\_\_\_ feet MSL.
55. (91.211) If you fly an unpressurized aircraft above 12,500 feet MSL, but not more than 14,000 feet MSL, for a period of 2 hours and 20 minutes, how long are you required to use supplemental oxygen during the flight?
1. 1 hour and 20 minutes
  2. 1 hour and 50 minutes
  3. 2 hours and 20 minutes
  4. Supplemental oxygen is not required at these altitudes.
56. (91.215) Excluding the airspace at and below 2,500 feet AGL, transponders with altitude encoding capability are required in controlled airspace above \_\_\_\_\_ feet \_\_\_\_\_ .
57. (91.215) If your aircraft is equipped with an operational transponder, regulations specifically require that it must be turned on while flying within \_\_\_\_\_ .
58. (91.215) If you need to fly through Class B airspace, how far in advance must you contact the controlling ATC facility for permission to deviate from the transponder equipment requirement?
1. One hour before the proposed flight.
  2. 8 hours before the proposed flight.
  3. 24 hours before the proposed flight.
  4. Aircraft without transponders are not allowed in Class B airspace areas.
59. (91.403) The person who is primarily responsible for maintaining an aircraft in an airworthy condition is the \_\_\_\_\_ or \_\_\_\_\_ .
60. (91.411) IFR flight in controlled airspace is prohibited unless, within the previous 24 calendar months, the
1. static system has been tested and inspected.
  2. flight instruments have been tested and inspected.
  3. communications radios have been tested and inspected.
  4. aircraft has received a new airworthiness certificate.
61. (91.413) In order for a transponder to be used in controlled airspace, it must be inspected by a certificated repair station within the previous \_\_\_\_\_ .