**Federal Aviation Regulations**

**Basic VFR Weather Minimums**

1. You may not operate under basic VFR at an airport that is within Class E airspace beneath the ceiling when the ceiling is less than 1,000 feet AGL. **True** or false?

2. What are the VFR minimums for the following:

a. flight by day in Class G airspace that starts at the surface?

***1 mile clear of clouds***

b. flight in Class G airspace below 10,000 feet but higher than 1,200 feet AGL (regardless of MSL altitude) by day?

***1 512 bah***

c. flight in Class E airspace below 10,000 feet or less than 1,200 feet AFL (regardless of MSL altitude)?

***3 512 bah***

d. flight in Class E airspace at or above 10,000 feet MSL, and more than 1,200 feet AGL?

***5 111 bah***

e. flight in Class B airspace?

***3 clear of clouds***

f. flight in Class C airspace?

***3 512 bah***

g. flight in Class D airspace?

***3 512 bah better than 1000 and 3***

h. flight in Class G airspace at or above 10,000 feet MSL, and more than 1,200 feet AGL?

***5 111 bah***

3. What are the VFR minimums for VFR-on-top flight in the following:

a. Class G airspace at 13,500 feet MSL (above 1,200 feet AGL) during daylight hours?

***5 111 bah***

b. Class E airspace at 13,500 feet MSL (above 1,200 feet AGL) during daylight hours?

***5 111 bah***

c. Class G airspace at 8,500 feet MSL (above 1,200 feet AGL) during daylight hours?

***1 512 bah***

d. Class E airspace at 8,500 feet MSL during daylight hours?

***3 512 bah***

4. What are the VFR minimums for a VFR-on­ top flight at 10,500 feet MSL (above 1,200 feet AGL) during daylight hours? What classes of airspace do these apply to?

***5 111 bah Both class E and G***

10. What are the VFR minimums for flight in Class G airspace 1,200 feet or less AGL at night?

***3 512 bah***

11. What are the VFR minimums for flight in Class G airspace more than 1,200 feet AGL but less than 10,000 feet MSL at night?

***3 512 bah***

**Special VFR Weather Minimums**

12. In what airspace may a special VFR clearance be issued by ATC?

***B, C or D except as listed in appendix d of part 91***

13. Name the visibility and distance from clouds requirements for a special VFR clearance.

***1 mile clear of clouds***

14. May a non-instrument-rated pilot fly special VFR at night?

***Nope***

**Requirements for Certificates, Ratings, and Authorizations**

15. Do you require an instrument rating to be pilot-in-command of an IFR flight?

***Yep***

16. Do you require an instrument rating to be pilot-in-command of an IFR flight in VFR conditions?

***Yep***

17. Do you require an instrument rating to be pilot-in-command of a flight in weather conditions less than the minimums prescribed for VFR flight?

***Yep***

18. Do you require an instrument rating to operate in Class A airspace?

***Yep***

**Pilot Logbooks**

19. Must you be flying in actual IFR conditions to log the time as instrument time?

***Nope, Hood time may be logged***

20. Can the total flight time of a flight on an IFR flight plan be logged as instrument flight time?

***No only that time in which you were in actual***

21. Which part of the total flight time under an IFR flight plan can be logged as instrument flight time?

***Only that time which you operated in actual or simulated instrument conditions***

22. If you enter some flight time as being simulated instrument conditions, what additional qualifying information must also be entered?

***Place, type of IAP, name of safety pilot***

**Recent Flight Experience­ Pilot-in-Command**

26. What is the minimum instrument time required within the last 6 months for you to be current for IFR?

***No minimum time, except for glider pilots***

27. How much flight time in actual IFR conditions is required to remain instrument current?

***None all time can be under the hood***

28. How many instrument approaches must have been flown in the previous 6 months for you to be current for IFR operations? How many of these instrument approaches have to have been in an aircraft?

***6, they can all be done in a sim***

29. What must you have accomplished in the last 6 months in order to remain current for IFR operations? If these conditions cannot be met, what other options are available to you?

In the previous 6 month, 6 approaches, holding, tracking, and intercepting

30. After your recent IFR experience lapses, how much time do you have before you must pass an instrument proficiency check to act as pilot-in-command under IFR?

***6 months***

31. How long do you remain current for IFR flight after successfully completing an instrument proficiency check, even if no further IFR flights are made?

***6 months***

32. Do you require any recent IFR experience to submit yourself to an instrument proficiency check with an FAA inspector, a designated examiner, or a certificated instrument flight instructor?

***No***

33. Your recent IFR experience expires on June 1 of this year. What is the latest date that you can meet the IFR recent experience requirement without having to take an instrument proficiency check?

***November 30th, December 1st you’re not current***

34. Your present instrument experience within the last 6 months is:

• in a simulator: 3 hours and 1 instrument approach; and

• in an airplane: 3 hours and 1 instrument approach.

1. What additional IFR experience do you require to meet the recent IFR requirements to act as pilot-in-command under IFR?

***4 approaches, holding, tracking and intercepting***

**Flight Instruction­ Simulated Instrument Flight and Certain Flight Tests**

35. For you to practice simulated IFR flight under the hood in VFR conditions, what minimum requirements must be met?

***Safety pilot***

36. Define the qualifications that your safety pilot must possess.

***Private with category and class ratings in the plane being flown***

**Airplane Rating-Aeronautical Experience**

1. As a commercial pilot, do you require an instrument rating to carry passengers for hire at night?

***Yes***

38. As a commercial pilot, do you require an instrument rating to carry passengers for hire on a cross-country flight of 45 NM by day?

***No***

39. As a commercial pilot, do you require an instrument rating to carry passengers for hire on a cross-country flight of 45 NM by night?

***Yes***

40. As a commercial pilot, do you require an instrument rating to carry passengers for hire on a cross-country flight of 73 NM by day?

***Yes***

**Civil Aircraft Airworthiness**

41. Who is responsible for determining if an aircraft is in a condition safe for flight?

***PIC***

42. If an un-airworthy mechanical, structural, or electrical condition occurs in flight, you should:

a. continue the flight normally to the destination.

***b. discontinue the flight.***

**Instrument and Equipment Requirements**

47. If the clock does not have a digital presentation, is a sweep second hand a requirement for IFR flight?

***Yes***

48. Is a gyroscopic direction indicator required for operations under IFR?

***Yes***

49. Is a dual VOR system required for operations under IFR?

***No***

50. Is DME required for flight at and above 24,000 feet MSL?

***Yes if VOR equipped***

51. For IFR flight, do you require navigation equipment appropriate to the ground facilities to be used?

***Yes***

**Operations in Class B Airspace**

52. Do you require an operable VOR to fly IFR in a Class B airspace area?

***Yes***

53. Do you require an operable ADF to fly IFR in a Class B airspace area?

***No***

54. Do you require two-way radio communications to fly in a Class B airspace area?

***Yes***

55. Do you require an altitude-reporting transponder to fly in a Class B airspace area?

***Yes***

56. What is the altitude-reporting capability on a transponder known as?

***Mode C***

57. Is an ATC clearance required to fly in a Class B airspace area?

***Yes***

**ATC Transponder and Altitude Reporting Equipment and Use**

58. When is an operable coded transponder equipped with Mode C capability required?

***B, C, 30 NM veil around B and above 10,000 – above 2500 agl***

59. Is an operable coded transponder equipped with Mode C capability required in Class A or B airspace?

***yes***

60. Is an operable coded transponder equipped with Mode C capability required in a Class C or D airspace?

***Class C***

61. Is an operable coded transponder equipped with Mode C capability required within 30 NM of the primary airport of a Class B airspace area?

***Yes***

62. Your transponder fails when you are flying in a Class B airspace area. Can ATC allow you to continue without your transponder functioning?

***Yes***

63. If your transponder is inoperative and you wish to fly into Class B airspace, how long before the proposed flight should you request a waiver from the transponder requirement?

***At least 1 hr***

**ATC Transponder Tests and Inspections**

64. To be used, the ATC transponder must have been satisfactorily tested and inspected within what time period?

***24 calendar months***

**Altimeter System and Altitude Reporting Equipment Tests and Inspections**

65. An aircraft altimeter system test and inspection must be completed within what time period?

***24 calendar months***

66. Your aircraft had the static pressure system and altimeter tested and inspected on September 13 of this year, and was found to comply with FAA standards. These systems must be re-inspected and approved for use in controlled airspace under IFR by which date and how many years later?

***September 30th 2 yrs later***

67. The altitude-reporting system of the transponder must be checked within what time period?

***24 calendar months***

**VOR Equipment Check for IFR Operations**

68. To operate under IFR, an operational check of the aircraft VOR equipment must have been accomplished within what time period?

***30 days***

69. When making an airborne check of a dual VOR system, what is the maximum tolerance between the two indicators when set to identical radials of a VOR?

***Within 4 degrees***

70. What four items should be entered in the aircraft log, or other permanent record, by each person who carries out the VOR operational check?

***Date, place, bearing error and signature***

71. What is the maximum tolerance allowed for an operational VOR equipment check when using a VOT?

***+or- 4 degrees***

**Supplemental Oxygen**

72. As pilot of an unpressurized airplane, are you required to use supplemental oxygen cruising at 12,000 feet?

***No***

73. As pilot of an unpressurized airplane, are you required to use supplemental oxygen cruising at 12,500 feet?

***No***

74. As pilot of an unpressurized airplane, are you required to use supplemental oxygen cruising at 13,000 feet?

***Yes after 30 minutes***

75. What is the maximum cabin pressure altitude at which you can fly for longer than 30 minutes without using supplemental oxygen?

***12,500***

76. As pilot of an unpressurized airplane operating above 12,500 feet MSL, but not more than 14,000 feet MSL, for a period of 1 hour 40 minutes, for what period are you required to use supplemental oxygen?

***1 hour 10 minutes***

77. As pilot of an unpressurized airplane operating above 15,000 feet MSL for a period of 1 hour 40 minutes, for what period are you required to use supplemental oxygen?

***1 hour 40 minutes***

78. Crew must use oxygen for the whole time above what cabin pressure altitude?

***14,000***

79. Passengers must be provided with oxygen at flight above what cabin pressure altitude?

***15,000***

80. You are flying a pressurized airplane at FL31 (31,000 feet).The cabin is pressurized to 8,500 feet. Must you wear your oxygen mask?

***No***

81. Cruising at FL 310, your airplane experiences a depressurization. You put your oxygen mask on and commence a rapid descent to a low altitude. In which of the following situation are you permitted to remove your oxygen mask to improve voice communications?

a. You level off at 16,000 feet MSL.

***No***

b. You level off at 15,000 feet MSL.

***No***

c. You level off at 14,000 feet MSL.

***For 30 minutes***

d. You level off at 12,500 feet MSL.

***For 30 minutes***

e. You level off at 10,000 feet MSL.

***Yes the entire time***

**Operation under IFR in Controlled Airspace-Malfunction Reports**

82. Are you required to report the malfunction of your VOR receiver to ATC if you are operating on an IFR flight plan?

***Yes***

**Maintenance Required**

83. Do maintenance personnel need to make an entry in the aircraft maintenance records indicating that an aircraft is approved for return to service following the replacement of faulty attitude indicator?

***Yes***

1. Should a known inoperative ADF be placarded?

***Yes***

**Inoperative Instruments and Equipment**

86. When taxiing for takeoff prior to an IFR flight, you notice that the turn coordinator is not functioning. Is a takeoff permitted?

***No***

87. In your preflight inspection prior to an IFR flight, you notice that the VSI has been placarded as inoperative by the maintenance personnel. Is a takeoff permitted?

***Yes***

88. In your preflight inspection prior to an IFR flight, you notice that the only VOR in the aircraft has been placarded as inoperative by the maintenance personnel. Is a takeoff permitted without further reference to the FAA?

***No***

**Fuel Requirements for Flight in IFR Conditions**

95. What minimum conditions must exist at the destination airport to avoid listing an alternate airport on an IFR flight plan when a standard instrument approach is available?

***123 rule or 1142 rule for helicopters***

96. Is an alternate required for a destination airport which has an instrument approach procedure, and which has a ceiling forecast of 1,500 feet, and a forecast visibility of 3 miles? Justify your answer.

***Yes 2000 foot ceiling required***

97. If conditions requiring an alternate are forecast to improve above alternate conditions 45 minutes prior to your ETA, do you need to carry enough fuel for an alternate?

***Yes***

98. If excellent weather conditions at your destination are forecast to deteriorate below alternate minimums 55 minutes after your ETA, do you need to list an alternate?

***Yes***

99. Is an alternate required for a destination airport served by an instrument approach with a ceiling forecast of 2,500 feet, and a forecast visibility of 3 miles? Justify your answer.

***No 123 rule applies***

100. Is an alternate required for a destination airport not served by an instrument approach with a ceiling forecast of 2,500 feet, and a forecast visibility of 3 miles? Justify your answer.

***Yes need an IAP or VFR from the MEA***

101. Your destination airport has a ceiling forecast of 2,000 feet and forecast visibility of 3 miles. Is an alternate required? Justify your answer.

***No 123 rule***

102. The destination airport has a ceiling forecast of 1,500 feet, and a forecast visibility in excess of 3 miles. Is an alternate required? What minimum fuel must you carry?

***Yes fuel to destination, alternate and 45 minutes. Helicopters all that but 30 minutes***

103. The destination airport has a ceiling forecast of 3,000 feet, and a forecast visibility in excess of 3 miles. Is an alternate required? What minimum fuel must you carry?

***No destination + 45 or 30 if helicopter***

104. There are known traffic delays of 30 minutes. Should you carry 30 minutes additional fuel?

***Yes***

105. The weather at the destination airport is currently good, but the ceiling is forecast to drop to 1,500 feet approximately 50 minutes after your estimated time of arrival. Is an alternate required?

***Yes unless you’re a helicopter***

106. The weather at the destination airport is currently good, but the ceiling is forecast to drop to 1,500 feet approximately one hour after your ETA. Is an alternate required?

***Yes***

107. The weather at the destination airport is currently good, but the ceiling is forecast to drop to 1,500 feet approximately 90 minutes after your estimated time of arrival. Is an alternate required?

***No***

108. The weather at your destination airport is ceiling 1,500 feet, visibility 2 miles but is forecast to improve to ceiling 2,500 feet, visibility 4 miles approximately 75 minutes after your ETA. Is an alternate required?

***Yes unless you’re a helicopter***

109. If the weather at your destination airport is currently ceiling 1,500 feet, visibility 2 miles, but is forecast to improve to ceiling 2,500 feet, visibility 4 miles approximately 45 minutes before your estimated time of arrival, is an alternate required?

***Yes unless you’re a helicopter***

**Flight Plan- Information Required**

110. What are the alternate minimums that must be forecast at the proposed alternate airport in the following situations:

a. if it has only a nonprecision approach procedure?

***800 & 2, for hecamaclopters 200 above the minima and 1 but not less than the vis for the IAP***

b. if it has a precision approach procedure?

***600 & 2, for hecamaclopters 200 above the minima and 1 but not less than the vis for the IAP***

c. if it has only a VOR approach procedure?

***800 & 2, for hecamaclopters 200 above the minima and 1 but not less than the vis for the IAP***

d. if it has published VOR and ILS approach procedures?

***600 & 2, for hecamaclopters 200 above the minima and 1 but not less than the vis for the IAP***

e. if it has no published approach procedure?

***Descent from the MEA, approach and landing in VFR***

111. The alternate minimums apply to:

***a. the ETA at the alternate airport.***

b. the ETA ±1 hour at the alternate airport.

112. What needs to be indicated in the current weather forecast for an airport without an authorized instrument approach procedure for that airport to be included on an IFR flight plan as an alternate?

***Descent from the MEA, approach and landing in VFR***

113. You have diverted to the alternate airport. When making an approach to land at this airport, which minimums are you restricted to?

***Those on the IAP***

**ATC Clearance and Flight Plan Required**

114. Do you need to file a flight plan to operate in controlled airspace (Class A-E) under IFR?

***Yes***

115. Do you need ATC clearance to operate in controlled airspace (Class A-E) under IFR?

***Yes***

116. Do you need to file an IFR plan to operate in instrument conditions (IMC) in controlled airspace?

***Yes***

117. Do you need to file an IFR plan to operate in IMC in Class G airspace?

***No***

118. Do you need to have an instrument rating to operate as pilot-in-command in IMC in Class G airspace?

***Yes***

119. When departing in IMC conditions from an airport located in Class G airspace, must you file a flight plan and receive an ATC clearance before takeoff?

***No***

120. When departing in IMC conditions from an airport located in Class G airspace, must you file a flight plan and receive an ATC clearance before entering IFR conditions?

***No***

121. When departing in IMC conditions from an airport located in Class G airspace, must you file a flight plan and receive an ATC clearance before arriving at the enroute portion of the flight?

***No***

122. When departing in IMC conditions from an airport located in Class G airspace, must you file a flight plan and receive an ATC clearance before entering controlled airspace?

***Yes***

123. When departing in IMC conditions from an airport located in Class G airspace, you must file a flight plan and receive an ATC clearance before which of the following?

a. takeoff.

b. entering IFR conditions.

***c. entering controlled airspace.***

d. arriving at the enroute portion of the flight.

**Operations in Class A Airspace**

124. Do you need to file an IFR plan if you intend to operate in Class A airspace?

***Yes***

125. At what altitude does the Class A airspace area begin?

***18,000***

126. Having filed an IFR plan, do you also require an ATC clearance to operate in Class A airspace?

***yes***

127. Will the ATC clearance to operate in Class A airspace contain an assigned flight level?

***Yes***

128. When must a flight plan be filed and a clearance received for an aircraft to be permitted to operate in controlled airspace under IFR?

***At all times***

**Compliance with ATC Clearances and Instructions**

129. While on an IFR flight, you have an emergency that causes you to deviate from your ATC clearance. What action must be taken?

***Notify ATC ASAP***

130. You experience a distress condition, such as mechanical problems. What actions should you take?

***Declare an emergency, get an amended clearance as necessary***

131. When may ATC request a detailed report of an emergency, even though a rule has not been violated?

***When priority is given***

158. What are the standard takeoff minimums for a one- or two-engine airplane carrying people for 14 CFR Part 135 operations? What are the standard takeoff minimums for flights operated under Part 91?

***1 mile, none***

159. What is the equivalent visibility in statute miles for RVR 2,400 feet?

***½ SM***

160. What is the equivalent visibility in statute miles for RVR 5,000 feet?

***1 SM***

**Aircraft Speed**

165. What is the maximum speed below 10,000 feet MSL, in any airspace class?

***250 kts***

166. Does ATC have the authority to override this requirement in Class B airspace?

***Yes***

167. What is the maximum speed at or below 2,500 feet AGL within 4 NM of the primary airport of a Class C or D airspace area?

***200 kts***

168. What is the maximum speed in the airspace underlying Class B airspace that is designated for an airport?

***200 kts***

169. What is the maximum speed in a VFR corridor through Class B airspace?

***200 kts***

**IFR Radio Communications**

170. Are you required to make a radio call at a compulsory position reporting point designated on your chart when you are under radar control?

***No***

171. Are you required to make a radio call at compulsory position reporting point designated on your chart when you are not und radar control?

***Yes***

172. Are you required to report any un-forecasted weather encountered, such as a thunderstorm by radio?

***Yes***

**IFR Operations-Two-way Radio Communications Failure**

173. What action should you take if you experience two-way radio communications failure in VFR conditions?

***Squawk 7600, continue under VFR and land. Call ATC on the phone***

174. You enter a holding pattern at a fix, which is not the approach fix, and receive an EFC time of 1620Z. At 1610Z you experience complete two-way communications failure. What actions should you take?

***Depart the hold at 16:20 and complete the approach***

175. If you are in IFR weather conditions and experience a two-way radio communication failure, what action can you take with the transponder to alert ATC.

***Squawk 7600***

176. What altitude enroute should you follow?

***The highest of the following: last assigned, MEA, expected in further clearance***

177. What route should you follow?

***Route last assigned, if vectored direct to the fix in the clearance, expected in a further clearance, route in the flight plan***

178. You arrive at your clearance limit 10 minutes early. When do you leave your clearance limit if: a. The clearance limit is not a fix from which an approach begins?

Upon arrival and proceed to a fix from which an approach begins

b: The clearance limit is a fix from which an approach begins?

***Hold until time is up then do the approach***