References: AIM, Federal Aviation Regulations, Enroute Low Altitude Instrument Approach Procedures, and IFR Supplement. (Applicable instrument approach procedures and enroute chart extracts are located at appendix 1).

1. According to FAR Part 61, a pilot who has not performed and logged 6 instrument approaches, holds, and course intercept/tracks under actual or simulated instrument conditions in the past six calendar months

   a. may fly only under VFR conditions with a safety pilot.
   b. must successfully complete an instrument competency check prior to any flights under IFR if it has been more than six calendar months since currency expired.
   c. is still current to fly under IFR but needs to fly the required flight time and approaches before the end of the 12th calendar month.
   d. is restricted to enroute IFR only.

2. Prior to flight under IFR when VOR navigation will be used, the VOR receiver(s) must have been operationally checked, found to be within specifications, and an appropriate record made

   a. by an FAA-approved avionics repair station within the past year.
   b. within the past 10 hours of flight time.
   c. within the past 30 days.
   d. within the past 24 months.

3. To operate in controlled airspace under IFR, an aircraft must have a sensitive-pressure altimeter that has been calibrated by an FAA-approved test station within the past

   a. 12 months.
   b. 36 months.
   c. 24 months.
   d. 48 months.

4. According to FAR Part 91, which of the below equipment is <u>not</u> required for flight under IFR?

   a. oil pressure gauge.
   b. generator.
   c. alternate static air source.
   d. gyroscopic rate of turn indicator.

5. A pilot is planning an IFR flight back to Huntsville International Airport (HSV). The weather is forecast to be 6 BKN, 1 1/2 -R BR at the time of arrival (+ or - 1 hour). Based on the above, the pilot should determine that

   a. no alternate airport will be required since the ceiling is well above the DH for the ILS at HSV.
   b. he must wait for improved conditions since the low ceilings are likely to cause him to miss the approach at Huntsville.
   c. the visibility will be below minimums for the ILS for approach.
   d. an alternate airport will be required.

6. While enroute on an IFR flight under instrument conditions, the pilot notices that the automatic direction finder (ADF) has failed. He must then

   a. declare an emergency and request vectors to the nearest airport.
   b. descend to visual conditions and land as soon as possible.
   c. notify ATC that this equipment is no longer operational.
   d. continue with the flight as no action is required for a failed ADF.

7. The differences between enroute MOCA and MEA altitudes as published on a low-altitude enroute chart is

   a. always 1000 feet.
   b. assurance of acceptable navigation signal reception.
   c. a safety factor for altimeter errors.
   d. the minimum separation used by ATC for aircraft along that route.

8. A pilot operating under visual conditions on an IFR flight plan discovers that his radio(s) have failed. He should then

   a. squawk 7600, remain under visual conditions, land as soon as practical, and notify ATC.
   b. squawk 7500 and continue the flight in accordance with the last clearance received from ATC.
   c. return to the airport of departure.
   d. squawk 7700, proceed to the nearest airport with a published IFR approach, and land

9. GPS receivers will provide RAIM messages to alert the pilot that

a. there are not enough satellites available, or a potential error has been detected.
b. the pseudo-range and position information supplied by a satellite are correct.
c. Read Airman Information Manual (RAIM) - specific paragraph noted.
d. the mask angle needs to be reinitialized.

10. A pilot receives the following clearance: "Cleared localizer runway 27 approach, circle to land runway 9". At what point may the pilot descend from the published circling MDA?

a. as soon as the pilot breaks out and has runway 27 in sight.
b. at midfield on downwind for runway 9.
c. upon passing the missed approach point.
d. when the runway 9 environment is clearly in sight, the aircraft is in a position to make a safe landing, and a descent at a normal rate can be accomplished.

11. While conducting an ILS approach at decision height without the runway in sight, a pilot

a. may continue to land.
b. may continue to within 100 ft of the touchdown zone elevation.
c. must immediately execute a missed approach; follow the missed approach procedure, and announce "missed" to ATC.
d. must call the tower and advise of weather conditions.

12. The time to the missed approach point (MAP) as published on approach plates is based on

a. ground speed.
b. aircraft category.
c. airspeed.
d. aircraft weight.

13. When a pilot sees the words "RADAR REQUIRED" on an instrument approach procedure, he should know that

a. his aircraft will need airborne radar to fly this approach.
b. the approach requires ATC radar.
c. this is either a PAR or ASR approach.
d. a 4096 transponder with mode C readout will be required.

14. While planning a trip to Miami, a C-182 pilot receives a weather briefing indicating low ceilings along his entire route of flight. Tops are expected to be 22,000 with possible embedded thunderstorms. Based on this information the pilot

    a. continues knowing ATC radar can vector him through the worst of the weather.
    b. determines to monitor TWEB for convective SIGMET bulletins, which will report the position of all thunderstorms.
    c. carefully reconsiders his priorities and options for this trip, knowing ATC radar may not accurately depict the embedded storms.
    d. knows that he must maintain a cruise airspeed of less than Vno to prevent structural damage if he encounters turbulence.

15. A pilot executes the missed approach at the destination airport due to fog. He must then

    a. inform ATC of intentions, i.e., alternate airport, route of flight, another approach, etc.
    b. proceed to the alternate airport as previously filed.
    c. request vectors to the nearest airport with ceilings of 200 feet or higher and visibility of at least one mile.
    d. hold at the missed approach point until advised by ATC of additional procedures to be followed.

16. A pilot flying a C-182 on a straight-in localizer approach to runway 18R at Huntsville (HSV) must execute the missed approach if the runway environment is not in sight at

    a. 2:12 minutes past FEKER intersection at 120 knots.
    b. 3.9 NM past KITTZ intersection.
    c. 2:12 minutes past GETEC intersection at 120 knots.
    d. 829 feet MSL and 2:56 minutes past GETEC.

17. A pilot flying the NDB approach to the Redstone Airport (HUA) knows that underlining below the frequency, e.g., <u>287</u> , for the HUA NDB indicates that this

    a. is a pilot activated navaid.
    b. is a secondary navaid.
    c. is a new (changed) frequency.
    d. navaid has no voice capability.

18. HOBBI intersection southeast of the Decatur VOR on V541 is formed by

a. the DCU VOR 131 radial and the VUZ VOR 011 radial.
b. the GAD VOR 316 radial and the DCU VOR 131 radial.
c. the VUZ VOR 0ll radial and the GAD VORTAC 316 radial.
d. 17 nm DME from DCU on V541.

19. The airway marking (arrow) northwest of MASHA intersection on V325 indicates

a. the published MEA applies only for southeast bound traffic.
b. a minimum crossing altitude.
c. a DME fix.
d. an MEA, MAA and/or MOCA change point.

20. The symbol northeast of Birmingham's Vulcan VORTAC on V115 approximately 5 nm northeast of GESTS intersection indicates a

a. minimum crossing altitude.
b. VOR changeover point.
c. VOR airway course change.
d. compulsory reporting point.

21. Regarding obstruction clearance when departing Redstone under IFR,

IAP

a. the "T" within the triangle on the approach plate indicates a non standard takeoff procedure Legend or minimums are required to be followed
b. Huntsville ATC will provide obstruction clearance when the aircraft is in radar contact.
c. Huntsville ATC expects the instrument pilot to adhere to published takeoff procedures.
d. both a. and c.

22. A black "L" inside a white-filled circle in the airport data block for the arrival airport on an IFR low-altitude enroute chart means that

a. airport uses left hand traffic.
b. airport is equipped with a rotating beacon.
c. airport lights are turned on by prior request or for only part of the night.
d. airport has pilot-controlled lighting.

23. During an IFR arrival at Redstone Army Airfield a pilot receives the following clearance: "Cleared NDB 17 approach, circle to land runway 35". He identifies and fixes ARVES intersection then, upon breaking out of the clouds, he should

a. circle to enter right downwind for runway 35, maintain 1280 feet MSL until in a position to land.
b. circle to enter left downwind for runway 35, maintain 1400 feet MSL until in a position to land.
c. circle to enter left downwind for runway 35, maintain 855 feet MSL until in a position to land.
d. circle to enter right downwind for runway 35, maintain 855 feet MSL

24. A pilot flying a C-172 (90KTS)on a straight-in ILS 36L approach at Huntsville must execute the missed approach if the runway environment is not in sight at

a. 4:24 minutes past CECAB
b. 815 ft MSL with the aircraft on the glide slope.
c. 1160 ft MSL.
d. 200 ft AGL.

25. The intersection marking at CRAND east of Chattanooga's Choo Choo (GQO) VOR on V54 indicates a

a. compulsory reporting point.
b. VOR changeover point.
c. minimum reception altitude.
d. minimum crossing altitude.