

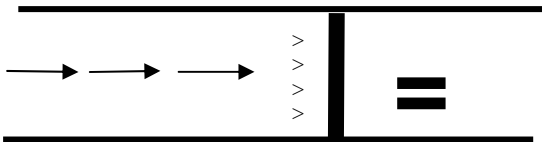
# STUDENT PILOT PRE-CROSS-COUNTRY WRITTEN EXAM

This test is required prior to solo cross-country per AFMAN

This test is not required if the student has passed the FAA Knowledge Test.

## USE ANSWER SHEET ON LAST PAGE OF TEST

1. Your destination airport has a runway 11 marked as follows:



Which activity is prohibited in the area marked with arrows?

- A. Taxing
  - B. Landing
  - C. Takeoff
2. To enter Class C airspace one must:
- A. Establish and maintain two-way radio communication with ATC prior to entering Class C.
  - B. Squawk code 2400 (VFR only) prior to entering.
  - C. Have an operable VOR receiver.
3. If your route of flight penetrates a Military Operating Area (MOA):
- A. Contact a FSS which is located within 100 miles of the MOA to obtain the MOA hours of operation.
  - B. If the MOA is active, contact the controlling agency prior to entry for traffic advisories.
  - C. Both A and B above.

4. If your destination does not have a tower, FSS or Unicom, self-announce over the following MULTICOM frequency:
  - A. 122.7 MHz
  - B. 122.8 MHz
  - C. 122.9 MHz
  
5. A restricted area cannot be flown into, unless you have proper permission from the nearest controlling agency.
  - A. True
  - B. False
  
6. You are enroute and are receiving radar assistance (flight following) from approach control. Which statement is FALSE?
  - A. Pilots should clearly understand that radar assistance does NOT constitute an authorization for the pilot to deviate from FARs.
  - B. To avoid possible hazards from being vectored into IFR conditions, pilots should keep the controller advised of weather conditions in which he/she is operating and along the course ahead.
  - C. VFR pilots on an ATC vector may momentarily enter IFR conditions provided VFR can be attained within 1 minute.
  
7. A Student pilot may fly into selected Class B airspace provided he/she
  - A. Contacts ATC and request a clearance into the Class B airspace
  - B. has received ground, flight training and a endorsement from his/her instructor.
  - C. Has a flight plan filed to enter the Class B airspace
  
8. An aircraft is in at least an URGENCY condition the moment the pilot becomes doubtful about position, fuel endurance, weather, or any other condition that could adversely affect flight safety. Pilots who become apprehensive for their safety for any reason should:
  - A. request assistance immediately.
  - B. update their flight plan with FSS.
  - C. declare an emergency as soon as the situation develops into a DISTRESS condition.
  
9. If your ETE changes by \_\_\_\_\_ minutes or more, report a revised ETE to the nearest FSS and give them your original destination. If you fail to report within 30 minutes of your ETA, a search will be started to locate you.
  - A. 10
  - B. 15
  - C. 30

10. \_\_\_\_\_ is a service specifically designed to provide enroute aircraft with timely and meaningful weather advisories. To obtain this service, contact FLIGHT WATCH on \_\_\_ MHz.

- A. FSS, 122.1
- B. METWATCH, 122.8
- C. EFAS, 122.0

11. During flight planning, you determine one of your legs as follows:

Magnetic Heading 176°  
Magnetic Course 184°

Which altitude is appropriate for this leg, assuming terrain elevation is not a factor?

- A. 5,000 ft.
- B. 3,500 ft.
- C. 4,500 ft.

12. When a distress or urgency condition is encountered and you wish to alert a ground radar facility, squawk code \_\_\_\_\_.

- A. 7700
- B. 7600
- C. 7500

13. On a course of 345°, which altitude would give you most favorable winds? .:

Winds Aloft:

3000' 240 @10  
6000' 265 @15  
9000' 290 @ 25

- A. 3000'
- B. 6000'
- C. 9000'

14. While cruising straight toward your destination, you pass over a small lake (your first checkpoint) at 0903. Later, you pass over your second checkpoint, a small town, at 0927. The distance from the lake to the town is 37 nautical miles. The distance from the town to your destination is 141 nautical miles.

If you maintain the same airspeed and the winds remain constant, when should you arrive at your destination?

- A. 1058
- B. 1116
- C. 1032

**Questions 15-18 require the use of a flight computer.**

15. Calculate your true airspeed (TAS):

**Given:**

|                               |           |
|-------------------------------|-----------|
| Calibrated Airspeed (CAS)     | 119 Kts   |
| Indicated Airspeed (IAS)      | 120 kts   |
| Pressure Altitude             | 4,500 ft. |
| Outside Air Temperature (OAT) | 15 deg C. |

- A. 110 Kts
- B. 129 Kts
- C. 135 Kts

16. Given the following conditions, how far can you fly a Cessna 172 (53 Usable) and land with the minimum fuel reserve required by AFMAN 34-232?

**Given:**

|                               |          |
|-------------------------------|----------|
| Average fuel consumption rate | 10.0 GPH |
| Average Ground speed          | 117 Kts  |

- A. 532 NM
- B. 503 NM
- C. 414 NM

**Use the following information to compute the answers to questions 17&18**

|                            |                    |
|----------------------------|--------------------|
| Departure airport          | Sea level          |
| Distance to destination    | 156 NM             |
| True course to destination | 355 degrees        |
| Average variation          | 20 deg E           |
| Cruising altitude          | 6,000 ft. MSL      |
| Wind at 6,000 ft.          | 270 deg at 25 kts. |
| TAS                        | 115 Kts            |

17. What magnetic heading should you plan to fly to maintain course?

- A. 346 deg.
- B. 324 deg.
- C. 335 deg.

18. What is your ground speed for cruise flight?

- A. 112 Kts
- B. 102 Kts
- C. 95 Kts

19. On a cross-country flight, the heading indicator should be checked against the magnetic compass about:

- A. Daily.
- B. Every fifteen minutes.
- C. Every hour.

20. According to the Elmendorf AFB Aero Club Standard Operating Procedures (SOP), the weather minimums for a student pilot cross-country are:

- A. 1,500 feet, 3 nm
- B. 2,500 feet, 10 sm
- C. 3,500 feet, 10 sm

21. To verify the meaning of a symbol on a sectional chart you should;

- A. Consult the AIM.
- B. Check appropriate FARs.
- C. Look at the legend on the Sectional Chart.

22. Where can Approach Control radio frequencies be found?
- A. On the sectional Chart.
  - B. In the Airport/Facility Directory.
  - C. Both A and B
23. The heading of an aircraft has no effect on the VOR indicator; however, if the aircraft heading is the same as the course selector reading, the CDI needle will deflect in the direction of the course.
- A. True
  - B. False
24. If a pilot fails to adjust the fuel/air mixture as altitude is gained, the mixture becomes richer because the:
- A. Volume of air entering the carburetor becomes less while the amount of fuel becomes greater.
  - B. Density of air entering the carburetor becomes less while the amount of fuel remains the same.
  - C. Volume of air and the amount of fuel entering the carburetor both become greater.
25. An Aero Club primary student pilot may request a Special VFR clearance.
- A. True
  - B. False
26. When flying the C-172 above 5,000 feet, the fuel selector should be selected to right or left tank to prevent vapor lock.
- A. True
  - B. False
27. The emergency radio frequency is:
- A. 122.0
  - B. 122.4
  - C. 121.5

28. According to Elmendorf Aero Club Standard Operating Procedures (SOP), cross-country flight training will be conducted on the routes selected. Planned landings at other than the specified airports requires approval by
- A. the Manager
  - B. the Chief Pilot
  - C. a Clearing Authority
29. In the event of an unscheduled landing on or off an airport, the student shall:
- A. Contact the Club for further instructions.
  - B. Do a quick preflight and return to Elmendorf.
  - C. Report the landing as soon as he/she arrives back at Elmendorf.
30. Where can you find the nearest flight service station frequency (on a sectional chart) to open your flight plan?
- A. Over the nearest VOR frequency box.
  - B. The nearest FSS Box (heavy lined box).
  - C. Both A and B

# USAF AERO CLUB KNOWLEDGE EXAM RECORD

Name: \_\_\_\_\_

Date Taken: \_\_\_\_\_

Type Exam:  Standardization     Instrument     Make & Model \_\_\_\_\_     Recurrency  
 Initial Solo     Solo Cross Country     Other: \_\_\_\_\_

Raw Score (%): \_\_\_\_\_

Date Corrected to 100%: \_\_\_\_\_

I certify all items were thoroughly debriefed and all questions answered

| Pilot's Signature |     |     |     |     | Instructor's Signature |     |     |     |     |     |
|-------------------|-----|-----|-----|-----|------------------------|-----|-----|-----|-----|-----|
|                   | T   | F   | (C) | (D) |                        | T   | F   | (C) | (D) |     |
| 1.                | (A) | (B) | (C) | (D) |                        | 26. | (A) | (B) | (C) | (D) |
| 2.                | (A) | (B) | (C) | (D) |                        | 27. | (A) | (B) | (C) | (D) |
| 3.                | (A) | (B) | (C) | (D) |                        | 28. | (A) | (B) | (C) | (D) |
| 4.                | (A) | (B) | (C) | (D) |                        | 29. | (A) | (B) | (C) | (D) |
| 5.                | (A) | (B) | (C) | (D) |                        | 30. | (A) | (B) | (C) | (D) |
| 6.                | (A) | (B) | (C) | (D) |                        | 31. | (A) | (B) | (C) | (D) |
| 7.                | (A) | (B) | (C) | (D) |                        | 32. | (A) | (B) | (C) | (D) |
| 8.                | (A) | (B) | (C) | (D) |                        | 33. | (A) | (B) | (C) | (D) |
| 9.                | (A) | (B) | (C) | (D) |                        | 34. | (A) | (B) | (C) | (D) |
| 10.               | (A) | (B) | (C) | (D) |                        | 35. | (A) | (B) | (C) | (D) |
| 11.               | (A) | (B) | (C) | (D) |                        | 36. | (A) | (B) | (C) | (D) |
| 12.               | (A) | (B) | (C) | (D) |                        | 37. | (A) | (B) | (C) | (D) |
| 13.               | (A) | (B) | (C) | (D) |                        | 38. | (A) | (B) | (C) | (D) |
| 14.               | (A) | (B) | (C) | (D) |                        | 39. | (A) | (B) | (C) | (D) |
| 15.               | (A) | (B) | (C) | (D) |                        | 40. | (A) | (B) | (C) | (D) |
| 16.               | (A) | (B) | (C) | (D) |                        | 41. | (A) | (B) | (C) | (D) |
| 17.               | (A) | (B) | (C) | (D) |                        | 42. | (A) | (B) | (C) | (D) |
| 18.               | (A) | (B) | (C) | (D) |                        | 43. | (A) | (B) | (C) | (D) |
| 19.               | (A) | (B) | (C) | (D) |                        | 44. | (A) | (B) | (C) | (D) |
| 20.               | (A) | (B) | (C) | (D) |                        | 45. | (A) | (B) | (C) | (D) |
| 21.               | (A) | (B) | (C) | (D) |                        | 46. | (A) | (B) | (C) | (D) |
| 22.               | (A) | (B) | (C) | (D) |                        | 47. | (A) | (B) | (C) | (D) |
| 23.               | (A) | (B) | (C) | (D) |                        | 48. | (A) | (B) | (C) | (D) |
| 24.               | (A) | (B) | (C) | (D) |                        | 49. | (A) | (B) | (C) | (D) |
| 25.               | (A) | (B) | (C) | (D) |                        | 50. | (A) | (B) | (C) | (D) |