

FMFA Arrow Aircraft (N780FM) (eff 01/20/2024)

Pilot _____ Date _____ Corrected by _____

Complete this open book test using the FAR/AIM/POH/FMFA documents, as appropriate. Assume you are operating an FMFA aircraft. Your flight instructor will grade the test. Minimum passing score is 80%. The completed test will be filed in the pilot's file and the date will be entered into the FMFA scheduling and dispatch system.

1. This aircraft contains ___ fuel drains/sumps and approved fuel grades and colors are _____.
2. What are the symptoms of induction ice for this aircraft and what actions should be taken?

3. Total useable fuel under all flight conditions is ___ gallons; ___ gallons to tabs.
4. What are the positions for the fuel selector? ___ / ___ / ___
5. Endurance at 75% power at 6000 ft PA with a 1-hour reserve is _____ hours under standard conditions.
6. Oil capacity is ___ / ___ quarts (Min / Max) for flight.
7. Air pressure for tires is ___ / ___ psi (Mains / Nosewheel).
8. Does this aircraft have a vacuum gauge? Why? _____.
9. The maximum rated power of the engine is _____ HP.
10. The aircraft engine is carbureted, fuel injected. (circle one)
11. Magnetos are checked at _____ RPM. RPM drop should not exceed ___ RPM on either magneto or ___ RPM differential between magnetos.
12. Maximum Gross Takeoff Weight is _____ lbs.
13. Maximum baggage compartment weight is _____ lbs.
14. The ammeter does / does not indicate battery discharge. (circle one)
15. The battery for this aircraft is ___ volts.
16. Complete a Weight & Balance Table for Arrow N780FM. Assume fuel 72 gal, pilot 200 lbs, copilot 200 lbs and baggage 15 lbs. Attach the table to this test. (You may use the W&B Excel spreadsheet on the FMFA website.)
17. The aircraft table above indicates that it is IN / NOT IN weight & balance limits. (circle one)
18. The stall warning horn in this aircraft will work without electrical power. (YES / NO) (circle one)
19. When jumpstarting this aircraft, the master should be OFF / ON when cranking the engine. (circle one)
20. Flaps are hydraulic/electrical/manual (circle one) with flap settings of ___ , ___ , ___ , ___ degrees.
21. Slips are not allowed in this aircraft in what configuration(s)? _____
22. Give indicated airspeeds in Kts for:
 - a. Va ___ @2750 lbs, ___ @1865 lbs
 - b. Vso ___ @40 deg flaps
 - c. Vs1 ___
 - d. Appch Speed @40 deg flaps > ___
 - e. Best Glide ___
 - f. V_{NE} ___
 - g. V_{NO} ___
 - h. V_{FE} ___
 - i. V_{LE} ___
 - j. Max Landing Gear Retraction Speed ___
 - k. V_Y gear up, flaps up ___
 - l. V_Y gear dn, flaps up ___
 - m. V_X gear up, flaps up ___
 - n. V_X gear down, flaps up ___

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23. Give the immediate action/memory items for:

a. Engine failure immediately after takeoff

b. Engine fire and engine fails to start

c. Engine fire in flight

d. Electrical fire in flight

- 24. Given: PA = 2000 ft, Temp = 30 C, RWY 27, Wind 320@12, RWY is paved, level, and dry.
The total takeoff distance to clear a 50' obstacle at max takeoff weight is _____ feet.
- 25. Given: PA = 2000 ft, Temp = 30 C; RWY 27, Wind calm; RWY is paved, level, and dry.
The total landing distance to clear a 50' obstacle at max landing weight is _____ feet.
- 26. Maximum demonstrated takeoff/landing crosswind component is ____ KTS.
- 27. Will the maximum demonstrated crosswind component for this aircraft be exceeded for the following: Landing Tipton RWY 28;
AWOS radio reported wind 310@22G30? YES / NO (circle one)