ALBERTA COLLEGE
OF AERONAUTICS

Cessna 172M
Check On Type Exam

Pilot Information:

Pilot's Name:_____

Signature:_____

Date Completed:_____

Corrected to 100% by:

Flight Instructor _____

Signature:_____

Date Corrected:_____

Revised: 07/10/2025

GENERAL & AIRCRAFT SYSTEMS

1. **List the following V speeds:**

V_Y	
V_X	
V_S	
V_{SO}	
V_{NO}	
V_{FE}	
V_{NE}	
Enroute CLB	
Normal APPR	

2. **List the VA speeds at 1750lbs, 2150lbs, and 2550lbs. Why does it change with weight?**

3. **What fuel grade is approved for this plane?**

4. **List the total usable and unusable fuel quantities for the C-172M:**

5. **How many fuel sumps are on the plane? Where are they located?**

6. **How much does a gallon of 100LL weigh?**

7. **List the following electrical systems specifications:**
   a. Battery Voltage

   b. Alternator Amps

8. **List the components affected by a total electrical failure:**

9. **Will the engine fail if the electrical system fails? Why or why not?**

10. **What type of engine does this plane have?**

11. **What grade of oil is approved for the C-172M?**

12. **List the minimum and maximum oil quantities for flight:**
    a. Minimum

    b. Maximum

13. **List all the hydraulically operated components on the C-172M:**

14. **Describe the proper response to an over-voltage annunciation:**

15. **When is carburetor icing most likely to occur?**

16. **Describe the symptoms of carburetor icing, and the proper response:**

17. **Describe the proper use of the carburetor heat for normal operations:**
    a. During run-up (check):

    b. Downwind/Pre-landing check:

    c. Increasing power (i.e. enroute climb)

    d. Decreasing power (i.e. approach to landing)

e. When should the carburetor heat be left ON?

f. When should the carburetor heat not be used?

18. Define the leaning procedure described in the POH:

AIRCRAFT PERFORMANCE

1. **Calculate the fuel consumption, TAS, and endurance under the following conditions:**

Pressure Alt 6500ft
65% Power
Max Gross Weight
Temp ISA

a. Fuel:
b. Endurance:
c. TAS:

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2. **Explain how the following conditions affect takeoff distance:**
   a. Headwind

   b. Tailwind

   c. Upslope runway

   d. Downslope runway

   e. Icy/Snowy runway

   f. High temperature

   g. Wake turbulence

   h. Wet grass runway

3. **List the following weights:**
   a. Basic Empty Weight (BEW)

   b. Maximum Certified Takeoff Weight (MCTOW)

   c. Maximum Landing Weight (MLW)

d. Utility Category

4. **Weight and Balance Scenario (use this data for questions 4-6)**

Front Seats - 380lbs
Rear Seats - 150lbs
Fuel - 40 Gallons
Baggage 1 - 50lbs

Determine the takeoff ground roll and distance to clear a 50ft obstacle under the following conditions:

Wind - 8kt headwind
Flaps - 10^{O}
Runway Surface - Dry Paved
Pressure Alt - 3400ft

a. Ground roll:

b. 50ft obstacle:

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5. **To achieve 65% power at 7500ft (ISA) what RPM setting shall be used?**

6. **Determine the landing weight and CofG, Landing ground roll, distance to clear a 50' obstacle after 2 hours at 7500ASL. (*remember to calculate fuel for climb)***
   a. Landing Weight:

   b. CofG

   c. Landing Ground Roll

   d. Distance to clear obstacle

NORMAL OPERATIONS & PROCEDURES

1. **Describe the takeoff procedures:**
   a. Normal Takeoff

   b. Short Field Takeoff - Obstacle

   c. Soft Field - No Obstacle

2. **Describe the landing procedures:**
    a. Normal Landing

    b. Short Field Landing - No Obstacle

    c. Soft Field Landing - No Obstacle
3. **Cruise power settings?**

4. **Describe how to conduct "Slow Flight":**
    a. Entry

    b. Recognition

    c. Recovery

5. **Describe how to perform a stall:**
    a. Entry

    b. Recovery

6. **Is the C-172M approved for spins?**
    a. Under what conditions?

    b. What is the recovery procedure?

7. **What is the overshoot procedure?**

8. **Describe the "Cold Start" procedure:**

9. **Describe the "Hot Start" procedure:**

10. **Is the use of a forward slip recommended with flaps? Why or why not?**

11. **What are the full power limits?**
    a. Maximum continuous:

    b. Maximum RPM:

EMERGENCY PROCEDURES

1. **List the actions to be taken for the following emergencies, include any published airspeeds:**
    a. Engine fire during start:

    b. Engine failure on takeoff roll:

    c. Engine fire in flight:

    d. Wing fire:

e. Electrical fire:

f. Cabin fire:

g. Static source blockage:

h. High voltage:

i. Landing without elevator control:

j. Emergency descent through clouds:

k. Magneto malfunction:

l. Spark plug fouling:

m. Low oil pressure: