



# Aircraft Checkout Written Test: C-172N (1355F)

## CHI Aerospace (Sept 2021)

Pilot Name: \_\_\_\_\_ Date: \_\_\_\_\_

Instructor: \_\_\_\_\_

### I - Airspeeds (KIAS)

VS0 \_\_\_\_\_ VS1 \_\_\_\_\_ VR \_\_\_\_\_ VX \_\_\_\_\_ VY \_\_\_\_\_

VA @2300# \_\_\_\_\_ VA @1600# \_\_\_\_\_ VFE \_\_\_\_\_

VNO \_\_\_\_\_ VNE \_\_\_\_\_

Short Field VR: \_\_\_\_\_ Max Allowable Short Field T/O Flap setting: \_\_\_\_\_

Cruise Climb Speed: \_\_\_\_\_

Approach Speed (Flaps Full) : \_\_\_\_\_ Short Field Approach Speed (Flaps Full): \_\_\_\_\_

Max cross wind component : \_\_\_\_\_

### II - Fuel and Oil

Total Fuel: \_\_\_\_\_ Gallons \_\_\_\_\_ lbs

Total Usable Fuel: \_\_\_\_\_ Gallons \_\_\_\_\_ lbs

Total Unusable Fuel: \_\_\_\_\_ Gallons \_\_\_\_\_ lbs

What are the approved fuel grades for the aircraft? \_\_\_\_\_

How many fuel sumps are there on the aircraft? \_\_\_\_\_

What is the max fuel burn in GPH? \_\_\_\_\_

What are the minimum reserve fuel requirements for day and night? \_\_\_\_\_

VFR Day: \_\_\_\_\_

VFR Night: \_\_\_\_\_

IFR: \_\_\_\_\_



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How would you monitor your fuel burn? \_\_\_\_\_

The engine has an oil capacity of \_\_\_\_\_ quarts total, \_\_\_\_\_ quarts in sump, and \_\_\_\_\_ quarts are considered minimum for normal flight. Fill to \_\_\_\_\_ quarts for extended flights.

Minimum oil pressure \_\_\_\_\_ psi; Normal: \_\_\_\_\_ psi; Maximum oil pressure is \_\_\_\_\_ psi.

What type of oil does this aircraft use? \_\_\_\_\_

### III - Weight and Balance

Basic Empty Weight: \_\_\_\_\_ lbs

Useful Load: \_\_\_\_\_ lbs

Maximum Ramp Weight: \_\_\_\_\_ lbs

Maximum Take-Off Weight (MTOW): \_\_\_\_\_ lbs

Maximum Baggage Weight; Area 1 \_\_\_\_\_ lbs, Area 2 \_\_\_\_\_ lbs, Area 1+2 combined \_\_\_\_\_ lbs

Weight of Oil: \_\_\_\_\_ lbs per quart

Max Forward CG at MTOW: \_\_\_\_\_ inches

Max Aft CG at MTOW: \_\_\_\_\_ inches

### IV - Aircraft Systems

What type of propeller does this aircraft have? Number of blades? Type?

What is the cold start procedure for this aircraft?

What is the warm start procedure for this aircraft?



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What is the flooded start procedure?

How is fuel supplied to the engine?

Does the airplane have an electric fuel pump?

Is the aircraft carbureted or fuel injected?

What is the proper procedure for leaning the mixture?

After performing your cruise checklist and leaning the aircraft, approximately what should your Fuel Burn be?

Pressure Altitude: 6,000ft

Temp: Standard

RPM: 2500

Fuel Burn: \_\_\_\_\_gph

Describe the engine. Make, model, cylinders, etc...

What is the engine horsepower and at what RPM? \_\_\_\_\_

Electrical system \_\_\_\_\_ volt; Alternator current is \_\_\_\_\_ amps; Battery voltage is \_\_\_\_\_ volts.

How many batteries does this aircraft have? \_\_\_\_\_

Where is the Main Battery located?



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How is the alternator checked during the engine run-up before takeoff?

What would alert you to an alternator failure?

Where is the static port located? Is there more than one? If so, how many and where are they?

Where is the alternate static source located?

What type of landing gear system is on the aircraft?

What type of flaps does the aircraft have?

Flap range approved for takeoff:

Flap setting for short-field takeoff:

### **V - Emergency Procedures**

What is the correct spin recovery procedure for the aircraft?



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What is the proper procedure for remedying engine roughness and/or power loss in flight?

Carb Icing: \_\_\_\_\_

Spark Plug Foul: \_\_\_\_\_

Magneto Malfunction: \_\_\_\_\_

Low Oil Pressure: \_\_\_\_\_

What is the emergency procedure for engine loss during cruise flight?

What are the corrective actions taken when there is an excessive rate of charge on the ammeter?

What are the corrective actions taken when there is an excessive rate of discharge on the ammeter?

*IF LOW VOLTS REMAIN:*

What action should the pilot take in the event of an engine fire during engine start?

What action should the pilot take in the event of an engine fire during flight?

What is the procedure for a balked landing (go-around)?



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## VI - Performance & Weight and Balance Computations

CFI weight: \_\_\_\_\_ lbs

Pilot's weight: \_\_\_\_\_ lbs

Fuel: \_\_\_\_\_ gallons = \_\_\_\_\_ lbs

Baggage: \_\_\_\_\_ lbs

Weight and Balance Computation:

Total weight: \_\_\_\_\_ lbs

Total moment: \_\_\_\_\_ in-lbs

Where is the center of gravity? \_\_\_\_\_ Does it fall within the CG envelope? \_\_\_\_\_

Using the following conditions, compute the takeoff and landing distance over a 50 ft obstacle:

Today's temperature: \_\_\_\_\_ °C

Surface wind: \_\_\_\_\_ degrees at \_\_\_\_\_ knots

Altimeter setting: \_\_\_\_\_ in Hg

Pressure altitude: \_\_\_\_\_ feet

Takeoff distance over a 50' obstacle: \_\_\_\_\_ feet

Landing Distance over a 50' obstacle: \_\_\_\_\_ feet

**Per CHI policy**, what are the runway minimums for this aircraft?

Length: \_\_\_\_\_ Surface: \_\_\_\_\_

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**TEST CORRECTED TO 100%**

Instructor Signature and CFI # : \_\_\_\_\_

Pilot Signature: \_\_\_\_\_ Date: \_\_\_\_\_