

# Aircraft Checkout Written Test: Vans RV-12

## CHI Aerospace

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

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

### I - Airspeeds (KIAS)

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

VA \_\_\_\_\_ VFE \_\_\_\_\_ VNO \_\_\_\_\_ VNE \_\_\_\_\_

Short Field VR: \_\_\_\_\_ Max Allowable Short Field Flap setting: \_\_\_\_\_

Soft Field VR: \_\_\_\_\_ Max Allowable Soft Field Flap setting: \_\_\_\_\_

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

Approach Speed: \_\_\_\_\_

Short Field Approach Speed: \_\_\_\_\_

### 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?

Why is there unusable fuel?

What is the max fuel burn for the aircraft?

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

Day:

Night:

How would you monitor your fuel burn?

There is one fuel gauge indication level that must always show the correct quantity of fuel in the tank. At what level is this?

The engine has an oil capacity of \_\_\_\_\_ quarts, and \_\_\_\_\_ quarts are considered the minimum for normal flight per the POH.

What would be the minimum oil level you would fly with and why?

Minimum allowable oil pressure is \_\_\_\_\_ psi; Maximum allowable oil pressure is \_\_\_\_\_ psi.

You check the oil and it's a bit low. What type of oil would you add? \_\_\_\_\_

### **III - Weight and Balance**

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

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

Maximum Baggage Weight: \_\_\_\_\_ lbs

Weight of Useable Fuel: \_\_\_\_\_ lbs

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

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

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

What is the definition of licensed empty weight?

What is the definition of Basic empty weight?

What is the definition of useful load?

What is the definition of payload?

## **IV - Aircraft Systems**

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 starting procedure for this aircraft (first start of the day/cold start)?

What is the warm start procedure for this aircraft?

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

What is the engine horsepower and at what RPM?

Alternator voltage is \_\_\_\_\_ volts, and current is \_\_\_\_\_ amps.

Battery voltage is \_\_\_\_\_ volts, and capacity is \_\_\_\_\_ amp-hours.

The output of the alternators is maintained at \_\_\_\_\_ volts by the \_\_\_\_\_

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

What would alert you to an alternator failure?

Where is the battery located?

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

What type of landing gear system is on the aircraft?

What type of flaps does the aircraft have?

Flap setting for short-field takeoff: \_\_\_\_\_

Flap setting for soft-field takeoff: \_\_\_\_\_

## **V - Emergency Procedures**

What is the correct spin recovery procedure for the aircraft?

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

What is the emergency procedure for engine loss during cruise flight (including initial response, field selection, troubleshooting, communication, and forced landing)?

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?

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)?

Is a go-around considered an emergency procedure? If so, why?

## **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

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

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

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