

C150  
Aircraft Knowledge Review

**Pilots Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Reviewed By:** \_\_\_\_\_ **Date** \_\_\_\_\_

Section 1 - General

1. Engine Model:
2. What grade and color of fuel should be used in this aircraft?  
Grade: \_\_\_\_\_ Color: \_\_\_\_\_.
3. What is the usable fuel capacity?
4. What brand and weight of oil should be used?

Section 2 - Limitations

1. List the V speeds for the Cessna 150 (MPH)

Vne		Va 1600 lbs	
Vno		Vfe	
Va 2300 lbs			

2. What do the white and green arcs on the airspeed indicator represent?  
White: \_\_\_\_\_ Green: \_\_\_\_\_.
3. List the max off weight:  
Normal: \_\_\_\_\_

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Section 3 – Emergency Procedures

1. List the following priorities 1, 2, or 3 (common knowledge)

Navigate      Communicate      Aviate

2. List the appropriate speeds to be used during the following (KIAS):

Engine failure after take-off: Flaps up: \_\_\_\_\_ mph Flaps Down \_\_\_\_\_ mph

Best glide speed: \_\_\_\_\_ mph

How far can you glide if you are 3000ft AGL? \_\_\_\_\_

What is Maneuvering Speed and When do I use it? \_\_\_\_\_

3. Complete the following checklist items for an in-flight engine failure:

1	Airspeed		4	Mixture	
2	Carburetor Heat		5	Ignition Switch	
3	Fuel Selector Valve		6	Primer	

4. Complete the following checklist items for the illumination of the over voltage light in flight

1	Avionics Power Switch		4	Master Switch	
2	Alternator Circuit Breaker		5	Low Voltage Light	
3	Master Switch		6	Avionics Power Switch	
If Ammeter shows a discharge					
1	Alternator				
2	Non-essential radios and electrical				
3	Flight				

## Section 4 – Normal Procedures

1. List the appropriate speeds for the following operations (MPH)

Normal take-off and climb	
Short field take-off (flaps 0°)	
Best Rate of Climb Vy @ sea level	
Best Angle of Climb Vx @ sea level	
Normal approach to landing – flaps up	
Normal approach to landing – flaps 30°	

2. Oil Level (quarts) Min: \_\_\_\_\_ Max: \_\_\_\_\_.

3. Describe the procedure for a short field take-off

1	Flaps		5	Mixture	
2	Carburetor Heat		6	Elevator	
3	Brakes		7	Climb speed	
4	Throttle		8	Flaps retract	

4. What checklist items should be complete before landing?

1	Seats, seat belts, shoulder harnesses		3	Mixture	
2	Fuel selector valve		4	Carburetor heat	

5. What would alert you to an imminent stall?

6. Describe the Bailed Landing (go-around) procedure. \_\_\_\_\_

## Section 5 Performance

1. Why does stall speed increase with bank angle? (common knowledge)

What is the stall speed at 0deg flaps and 40deg bank?

2. What is the Cruise RPM setting for 2500ft MSL?  
What is the gal/hr? \_\_\_\_\_

3. Determine the take-off distance required to clear a 50 ft obstacle under the follow conditions:

Weight - 1600 lbs                      Pressure alt - 1000'  
OAT - 85F                                Wind - Calm  
Surface - Dry grass  
Take-off Distance: \_\_\_\_\_.

4. Determine the landing distance to clear a 50' obstacle under the following conditions: (assumed flaps = 40 deg)

Weight - 1600 lbs                      Pressure Alt - 1000'  
OAT - 60F                                Head wind - Calm  
Landing Distance: \_\_\_\_\_.

## Section 6 Weight and Balance

1. Using the following weight and balance information for N23453, perform a weight and balance for the following flight and determine if the aircraft is within limits.

Pilot = 200lbs, CoPilot = 200lbs, Fuel = full

Is the aircraft within weight and balance limits?

What minimum reduction of fuel, if required, would be needed? \_\_\_\_\_

## Section 7 Systems

1. T or F Brakes should be used at all times during taxiing? (common Knowledge)
2. T or F Does N23453 have a standby vacuum system?
3. Which two flight instruments are powered by the vacuum system?