C172N Skyhawk
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 172 (KIAS)

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 weights for the following categories:
Normal: Utility:
Utility restriction:

4. List one maneuver that may be flown only in the utility category. _____.

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: kts Flaps Down kts
Best glide speed: kts

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 (KIAS)

Normal take-off and climb	
Short field take-off (flaps 10˚)	
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?

Section 5 Performance

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

2. What is the stall speed at gross weight, flaps 10˚, forward CG and bank 45˚ (KIAS)?

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

Weight - 2300 lbs Pressure alt – 3000'
OAT – 30C Wind – Calm
Surface – Dry grass
Take-off Distance: _____.

4. Determine the landing distance to clear a 50' obstacle under the following conditions: (assumed flaps = 30 deg)

Weight – 2300 lbs Pressure Alt – 3000'
OAT – 30C Head wind – 9K
Landing Distance: _____.

Section 6 Weight and Balance

1. Using the following weight and balance information for N738SP, perform a weight and balance for the following flight and determine if the aircraft is within limits.

N738SP Empty Weight 1475.6 Moment 57,695.96 .

Location	Weight	Moment
Front Pilot/Passenger	360 lbs	
Rear Passengers	320 lbs	
Baggage Area 1	50 lbs	
Fuel Full	lbs	
TOTAL		

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 738SP have a standby vacuum system?

3. Which two flight instruments are powered by the vacuum system?