

MVP Aviation Pre-Solo Knowledge (quiz)

NAME: _____ DATE ____/____/____

RESULTS: _____ out of 15

CORRECTED to 100% _____ CFI Signature, DATE ____/____/____

Per: **14 CFR 61.87** Solo requirements for student pilots, **Aeronautical Knowledge**

QUIZ (15-20 minutes, review with your instructor)

For aircraft N20068 (172M/180hp) Match answers A through Z with the corresponding question. (Note: some answers do not have a corresponding question. Others may be used twice.)

- 1) _____ What is the minimum steady flight speed with no flaps – the aircraft still controllable?
- 2) _____ What is the stall speed or minimum flight speed in landing configuration?
- 3) _____ What speed provides the best chance of clear an obstacle on take-off?
- 4) _____ What speed will get you to cruising altitude in the least amount of time?
- 5) _____ Abruptly moving the controls or flying in turbulent air becomes dangerous at what speed?
- 6) _____ List those V speeds which are not indicated on the airspeed indicator?
- 7) _____ What speed should you slow to before extending flaps?
- 8) _____ What speed should you only exceed in smooth air?
- 9) _____ What speed should you always stay below?
- 10) _____ What is represented by the yellow arc on the airspeed indicator?
- 11) _____ What is represented by the white arc on the airspeed indicator?
- 12) _____ What is represented by the green arc on the airspeed indicator?
- 13) _____ What is represented by the red-line on the airspeed indicator?
- 14) _____ What speed will allow you to cover the most distance without engine power?
- 15) If you had an engine failure what action would you take? (Fill blanks in the order you would act)

Answer: F _____ _____ _____ _____ _____ _____

- A) 75 mph, V_g – best glide range
- B) Always ask “What’s Next”
- C) 182 mph, V_{ne} Never exceed speed
- D) Pull the yoke to the stop and push the left rudder to the floor while adding power
- E) 46 mph, V_{so} – Bottom of the white arc, at gross weight, with flaps extended, and power set at idle
- F) Mag switch on both
- G) All airspeeds are indicated on the airspeed indicator except V_a
- H) Call your instructor
- I) Locate your best landing option within glide range
- J) 85 mph, V_y – provides the most gain in altitude in the least time
- K) Absolute maximum allowable speed, not to be exceeded
- L) Mixture rich
- M) Flap range from V_{so} to V_{fe}
- N) 146 mph, V_{no} – Maximum structural cruising speed or maximum speed for normal operations
- O) Squawk 7600
- P) 70 mph, V_x – provides the most gain in altitude in the least distance
- Q) Caution range from V_{no} to V_{ne} - smooth air only
- R) Contact ATC if possible
- S) Squawk 7700
- T) Call Mayday on 121.5 and state emergency and your location
- U) Zero flap range from V_s to V_{no}
- V) 98 mph, V_{fe} - maximum flap extended speed
- W) 105 mph (ref.), V_a - design maneuvering speed – for N20068, (106 mph @ 1900 lb. to 121 mph @ 2,550 lb.)
- X) 57 mph, V_s - Bottom of the green arc, at gross weight
- Y) Fuel on both
- Z) Squawk 7500