

GACE flying Club Systems Review, 2012
N5928E

Date: _____

Name: _____

GACE# _____

Score: _____

Checked by: _____

CFI# _____

Date: _____

(Instructions: Fill in the blank, circle the appropriate letter or match the correct answers as indicated. All pilots should answer questions 1 to 21. List Section and page number)

(Materials needed: C172N POH)

1) In the event of a vacuum system failure, during flight in marginal weather, which instruments would be disabled?

(a) electric compass, directional indicator and attitude indicator.

(b) wet compass, directional indicator and turn coordinator.

(c) airspeed indicator, vertical speed indicator and turn coordinator.

(d) directional indicator and attitude indicator.

(Section: _____ page: _____)

2) Flight into icing conditions is prohibited. An inadvertent encounter with these with these conditions can best be handled using the checklist procedures.

The best procedure is to _____

(Section: _____ page: _____)

3) If erroneous readings of the static source instruments, airspeed, altimeter and rate of climb indicators are suspected, the alternate static source valve should be pulled ON, thereby supplying _____

_____ to these instruments from the cabin.

(Section: _____ page: _____)

4) With the static source blocked; maximum airspeed and altimeter variation from normal is _____ knots and _____ feet of normal.

(Section: _____ page: _____)

5) A gradual loss of RPM and eventual engine roughness may result from the formation of carburetor ice. To clear the ice:

- (a) apply full throttle and pull the carburetor heat knob full out until the engine runs smoothly.
 - (b) apply full throttle and pull the carburetor heat knob 1/2 out until the engine runs smoothly.
 - (c) apply full throttle and pull the carburetor heat knob partially out until the engine runs smoothly.
- (Section: _____ page: _____)

6) If conditions require the continued use of carburetor heat in cruise flight:

- (a) use partial heat necessary to prevent ice from forming and increase the mixture.
 - (b) use maximum heat necessary to prevent ice from forming and increase the mixture.
 - (c) use minimum heat necessary to prevent ice from forming and lean the mixture.
- (Section: _____ page: _____)

7) A slight engine roughness in flight may be caused by:

- (a) spark plugs becoming fouled by carbon.
 - (b) magneto problem.
 - (c) none of the above.
- (Section: _____ page: _____)

8) A sudden engine roughness or misfiring is usually evidence of:

- (a) spark plugs becoming fouled by carbon.
 - (b) magneto problem.
 - (c) none of the above.
- (Section: _____ page: _____)

9) An obvious power loss in single ignition operation is evidence of spark plug or magneto trouble:

- (a) True, the procedure for determining the malfunction is the same for both systems.
 - (b) False, the procedure for determining the malfunction is not the same.
- (Section: _____ page: _____)

10) If low oil pressure is accompanied by normal oil temperature, there is a possibility:

- (a) the oil gage may be malfunctioning.
- (b) the relief valve may be malfunctioning.
- (c) all of the above.

(Section: _____ page: _____)

11) A leak in the line to the oil pressure gage is not necessarily cause for an immediate precautionary landing because an orifice in this line will prevent a sudden loss of oil from the engine sump.

- (a) True
- (b) False

(Section: _____ page: _____)

12) If a total loss of oil pressure is accompanied by a rise in oil temperature, there is good reason to suspect an engine failure is imminent:

- (a) True
- (b) False

(Section: _____ page: _____)

13) If a total loss of oil pressure is indicated:

- (a) increase engine power immediately and select a suitable forced landing field.
- (b) follow shut-down procedure(s) immediately.
- (c) reduce engine power immediately and use only minimum power required to reach a desired touchdown spot.

(Section: _____ page: _____)

14) After engine starting and heavy electrical usage at low engine speeds, (extended taxiing) the battery condition will be low enough to accept above normal charging during the initial part of the flight. Electronic components by higher than normal voltage. The over voltage sensor will shut down the alternator at approximate _____ volts, amps or watts.

(Section: _____ page: _____)

15) If an over voltage sensor malfunctions, as evidenced by an excessive rate of charge shown on the ammeter you should:

- (a) the battery and alternator should be turned off, nonessential electrical equipment turned off and flight terminated as soon as possible.
- (b) the battery should be turned off, nonessential electrical equipment turned off and flight terminated as soon as possible.
- (c) the alternator should be turned off, nonessential electrical equipment turn off and flight terminated as soon as possible.

(Section: _____ page: _____)

16) If the over voltage sensor should shut down the alternator and trip the alternator circuit breaker (ALT FLD), or if the alternator is low, a discharge rate will be shown on the ammeter followed by illumination of the low voltage annunciator (VOLTS). Since this may be a "nuisance" trip out, to reactivate the alternator system:

- (a) set both sides of the master switch, in the OFF position and then to the ON position.
- (b) set the alternator side of the switch to the OFF position and then to the ON position.

(Section: _____ page: _____)

17) Takeoff is made normally with carburetor heat off.

- (a) True
- (b) False

(Section: _____ page: _____)

18) Avoid excessive leaning in cruise flight. (CFI talking point; go over the leaning procedure for high altitude airports with a high density altitude)

- (a) True
- (b) False

(Section: _____ page: _____)

19) Carburetor heat may be used to overcome any occasional engine roughness due to ice.

(a) True

(b) False

(Section: _____ page: _____)

20) When operating below -18 dg C, avoid using partial carburetor heat. Partial heat may increase carburetor air temperatures to _____ dg C to _____ dg C.

(Section: _____ page: _____)

21) For easy starting in _____ weather, the engine is equipped with a manual primer. (Fill in the blank)

(Section: _____ page: _____)

End of Test