GACE Flying Club Aircraft Review Test 2017
N5312S & N5928E

Name: _____ GACE #: _____ Score: _____

Checked by: _____ CFI #: _____ Date: _____

(Answer each question as it applies to N5312S unless **28E** is specified)

1. What is the total fuel capacity? _____ /Section: Page:

2. **28E** – What is the total fuel capacity? _____

3. What is the maximum certificated takeoff weight in the normal Category = _____, and utility category = _____ /Section: Page:

4. What is the maximum allowable weight in the rear seats when operation in the utility category? _____ /Section: Page:

5. What is the recommended entry speed when performing steep turns? _____ /Section: Page:

6. What color on the airspeed indicator denotes the Maximum Structural Cruising Speed? _____ /Section Page:

7. What is the Va (maneuvering speed) at 2200 lbs.? = _____. Do not make _____or _____ control movements above this speed. /Section: Page:

8. The maximum full flap extended speed is? _____ /Section: Page:

9. What color on the airspeed indicator denotes the full flap operating range? _____ /Section: Page:

10. Takeoff and landing should be accomplished with the fuel selector in _____ position? /Section: Page:

11. What is the maximum weight that can be loaded in the baggage compartment? _____ How much of that weight can be put aft of the baggage door latch? _____ /Section: Page:

12. What is the maximum allowable aft C.G. in the normal category? _____ /Section: Page:

13. What is the engine failure after takeoff speed with flaps up? _____, flaps down? __ /Section: Page:

14. What are the first four corrective actions if you experience engine failure during flight?
    1. _____
    2. _____
    3. _____
    4. _____

/Section: Page:

15. **28E** – At what RPM setting should you begin using Carburetor Heat? _____

16. **28E -** How is carburetor ice detected and cleared?

_____
_____
_____
_____
_____

/Section: Page:

17. What is the corrective action if the fuel flow indicator drops to zero?_____
    _____ /section Page:

18. List the first six actions to be taken when executing a forded landing without engine power.
    1. _____
    2. _____
    3. _____
    4. _____
    5. _____
    6. _____

/Section: Page:

19. List the procedure for landing with a flat main tire
    1. _____
    2. _____
    3. _____
    4. _____

20. True or False: If you notice an engine fire while cranking the starter, you should CONTINUE to get a start which would suck the flames and accumulated fuel through the engine. _____ /Section: Page:

21. List the first four actions to be taken if you experience and electrical fire in flight.
    1. _____
    2. _____
    3. _____
    4. _____

/Section Page:

22. You notice erroneous instrument readings. You should suspect a _____, and put on the _____
/Section: Page:

23. The low voltage light illuminates during flight (ammeter indicates discharge), what are the first four actions to be taken?
    1. _____
    2. _____
    3. _____
    4. _____

If the low-voltage light illuminates again, then: /Section: Page:
    7. _____
    8. _____
    9. _____

24. What action should be taken if, while in flight, the oil pressure is low and the oil temperature is rising?

_____
_____
_____
_____
_____

/Section: Page:

25. Excessive fuel vapor is most likely to be generated during ground operations when operating in unusually warm temperatures. Operation at or near idle RPM for extended periods will increase the chances of fuel vapor generation. Which gauge can be used to identify fuel vapor in the system? _____
_____

What four actions should be taken if you suspect fuel vapor in flight?

    1. _____
    2. _____
    3. _____
    4. _____

/Section: Page:

26. You INADVERTENTLY encounter icing conditions. What are two systems you could turn on to help your situation. 1. _____2. _____
/Section: Page:

27. True or False: When landing with ice accumulation it is best to land with partial flaps?
_____ /Section Page:

28. **28E** – You INADVERTENTLY encounter icing conditions and notice a reduction of RPM. What has happened, and what systems would you turn on?

    1. _____
    2. _____
    3. _____

    /Section: Page:

29. **28E** - True or False. The use of full carburetor heat is recommended during flight in heavy rain. _____ /Section: Page:

30. **28E** – True or False. When flying on hot days with high humidity it's a good idea to use partial carburetor heat to help with preventing carburetor icing. _____

31. What is the best rate of climb speed at seal level? _____ /Section: Page:

32. What is the best angle of climb speed at sea level? _____/Section: Page:

33. What is the maximum demonstrated crosswind velocity for takeoff or landing?_____ /Section: Page:

34. Taking off into strong crosswind conditions normally are performed with the minimum flap setting necessary for the field length, to minimize the drift angle immediately after takeoff. With the ailerons partially deflected into the wind, the airplane is accelerated to a _____, then pulled off briskly to prevent possible settling back to the runway while drifting.

    /Section: Page:

35. When executing a balked landing which procedure is most appropriate? _____

    a. Full power, reduce flaps, pitch for airspeed
    b. Reduce flaps, full power, pitch for airspeed
    c. Reduce flaps, pitch for airspeed, full power

    /Section: Page:

36. What airspeed should be achieved before retracting flaps to 10 degrees during a balked landing? _____ /Section: Page:

37. **28E** - What is the recommended flap settings for short field operations?

    _____

    /Section: Page:

38. What is the recommended mixture setting when using the EGT gauge? _____

    d. 50 degrees lean of peak EGT
    e. Peak EGT
    f. 50 degrees rich of peak EGT
    g. None of the above /Section: Page:

39. What is the capacity of the alternator? _____ /Section: Page:

40. What is the capacity of the battery? _____/Section: Page:

41. Which instrument in the panel does the autopilot use for its indication of roll. _____. /Section: Page:

42. What are the following limitations for use of the autopilot?

    1. Autopilot minimum airspeed _____
    2. Autopilot minimum altitude (VFR, normal operations) _____
    3. Autopilot maximum flap extension _____

    /Section: Page:

You are planning a cross country flight. You plan to fly at 4,500 feet and the winds aloft interpolated read as 9900 with an ISA+21 at 4,500 feet. You want to use approx. 75% power and the tanks are full.

1. What Cruise Performance column would you use? _____
2. Is 75% power possible? _____
3. What is your TAS? _____ /Section: Page:
4. What will be your GPH?_____ .Section: Page:
5. You are planning a 2.5 hour flight with two passengers. How much fuel can you take_____? You land at your destination and notice the fuel pump is marked inoperative. The closest airport with fuel is 70nm away.

Pilot:	220 lbs.
Copilot:	210 lbs.
Rear Seat Pax.	200 lbs.
Baggage	75 lbs.

6. Is this loading acceptable? _____ (Weight & Balance should be done by hand)
7. What is your endurance? _____
8. What is your range? _____
9. What is your landing fuel at destination? _____, at fuel alternate? _____
10. What are your options? (CFI/Student discussion – This is a real scenario and there have been pilots who have fallen victim to this)

Your destination has a runway that is 2500 feet long. Temperature at the surface is 25 degrees Celsius with a pressure altitude of 1500 feet. ATIS is reporting winds 3210 and there are obstacles on both ends. The runways available are 06/24.

1. If you were landing 06, how much runway would you need? _____
2. If you were landing 24, how much runway would you need? _____
3. What flap setting is recommended? _____
4. Which runway is the best choice? _____
5. What atmospheric condition reduces climb gradient, lengthens runway needed for takeoff, reduces RPM and is not accounted for in any performance chart? _____.

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