REFER TO PIPER PA28-181 PILOT OPERATING HANDBOOK P/N: 761-624

- 1. This airplane has an engine that is rated at _____ horsepower at _____ RPM.
 - a. 180/2700
 - b. 160/2700
 - c. 145/2700
 - d. 210/2800
- 2. Metering of fuel/air mixture to the engine is accomplished by means of a:
 - a. Carburetor
 - b. Fuel Injection System
- 3. Engine oil quantity is a maximum/minimum of _____ quarts.
 - a. 5/4
 - b. 8/6
 - c. 10/8
 - d. 6/5
- 4. The fuel quantity in gallons is: _____ total, _____ useable (all flight conditions), and (PA-28s only) _____ when filled to the tabs.
 - a. 36/34/20
 - b. 52/46
 - c. 50/48/34
 - d. 39/36
- 5. The **minimum** octane rating for the fuel is aviation grade _____ which is _____ in color.
 - a. 115, purple
 - b. 100, green or 100LL, blue
 - c. 80, red
 - d. JP4, clear
- 6. Use of carburetor heat on the ground for prolonged periods should be avoided because the air is unfiltered.
 - a. True
 - b. False
 - c. No carburetor heat installed in this aircraft.
- 7. The electric fuel pump should be "on" or "high" for the following operations:
 - a. Engine priming
 - b. Takeoff
 - c. Both A and B
 - d. Not applicable fuel pump not installed
- 8. Maximum gross weight and maximum baggage weights are _____ and _____, respectively.
 - a. 2550/200
 - b. 2500/150
 - c. 2300/150
 - d. 2325/200

- 9. The flap positions are _____ for operation and _____ to be used as an entrance step.
 - a. 10/20/30 degrees and half down
 - b. 10/15/30 degrees and full down
 - c. 10/25/40 degrees and retracted
 - d. From 0 degrees to 40 degrees and are not
- 10. The electrical system includes a _____ volt battery and a _____ volt, _____ amperes alternator.
 - a. 14/14/60
 - b. 12/14/60
 - c. 12/14/30
 - d. 12/12/30
- 11. The ammeter displays:
 - a. Battery voltage
 - b. Load on the alternator
 - c. Current flow to/from battery
 - d. Battery amperage
- 12. The vacuum-driven flight instruments are as follows:'
 - a. Attitude Indicator and Turn Coordinator
 - b. Altimeter and Directional Gyro
 - c. Heading Indicator and Turn Coordinator
 - d. Attitude Indicator and Directional Gyro
- 13. During preflight inspection the fuel tanks should be *visually* checked to insure the required amount of fuel for the planned flight is aboard.
 - a. True
 - b. False
- 14. When starting a flooded engine, the mixture control should be in what position?
 - a. Doesn't matter
 - b. Full-rich
 - c. Idle cut-off
 - d. Half lean
- 15. Check the magnetos during run-up at _____ RPM. Differential drop should not exceed _____ RPM while max drop on either magneto is _____ RPM.
 - a. 2000/50/50
 - b. 1700/75/125
 - c. 1800/50/150
 - d. 2000/50/175
- 16. The stall warning horn is typically activated at
 - a. 10-20 knots/mph above stall speed
 - b. Stall speed
 - c. 5-10 knots/mph below stall speed
 - d. 5-10 knots/mph above stall speed

- 17. With flaps retracted, power at idle and maximum gross weight, the aircraft should stall at _____ kias/mph with 0° bank _____ kias/mph at 30° bank.
 - a. 50/54
 - b. 64/69
 - c. 53/57
 - d. 57/62
- 18. The mixture should always be leaned during cruise at 75% power or less and climb at altitudes above 5000 ft. MSL.
 - a. True
 - b. False
- 19. The procedure for flying in turbulent air is as follows:
 - a. Maintain fastest speed possible
 - b. Slow to below maneuvering speed and maintain altitude
 - c. Slow to below maneuvering speed and maintain level pitch attitude
 - d. Don't fly in turbulent air
- 20. Initial approach speed is _____ kias/mph (downwind speed for Cessnas) while final approach speed is _____ kias/mph with full flaps.
 - a. 75/66
 - b. 85/70
 - c. 85/75
 - d. 70/63
- 21. The fuel selector should be on _____ fuel tank(s) prior to landing.
 - a. The left
 - b. Both
 - c. The fullest
 - d. The right
- 22. For a normal takeoff, allow the aircraft to accelerate to <u>kias/mph</u>, then ease back on the control wheel to establish the approximate pitch attitude for climb.
 - a. 52-65
 - b. 50-60
 - c. 60
 - d. 45-55
- 23. After completing engine run-up and pre-takeoff check, the checklist should be:
 - a. Placed under the seat
 - b. Put I the back seat
 - c. Stowed out of the way
 - d. Kept on the pilot's lap for quick access
- 24. At 2300 lbs, pressure altitude of 4000 ft, 60°F, 0° flaps, and 5 knots headwind the takeoff ground run and distance over a 50 ft obstacle should be _____ ft and _____ ft, respectively.
 - a. 1600/2800
 - b. 1280/2420
 - c. 1500/2600
 - d. 1300/2500

- 25. At maximum gross weight, pressure altitude of 4000 ft, and temperature, the rate of climb should be _____ FPM.
 - a. 550
 - b. 450
 - c. 525
 - d. 510
- 26. At maximum gross weight, pressure altitude of 5000 ft, 70°F, and 75% power (leaned for best power) the airspeed should be _____ ktas and fuel consumption should be _____ gph.
 - a. 118/10.0
 - b. 114/8.4
 - c. 123/10.0
 - d. 127/10.5
- 27. At maximum gross weight, full tanks, pressure altitude of 8000 ft, 30°F, and 65% power (best economy) the range of the aircraft should be _____ (no reserve) and the endurance should be _____ (no reserve).
 - a. 710/6.1
 - b. 680/6.8
 - c. 610/6.1
 - d. 683/6.2
- 28. At gross weight, pressure altitude of 5000 ft, 80°F, 70% power (leaned for best power) will be obtained by setting the throttle to _____ RPM.
 - a. 2625
 - b. 2575
 - c. 2700
 - d. 2560