King Air 200

Self-Check Exercises

Revision 0

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Use of these Self-Check Exercises

CAE developed these exercises to reinforce your training.

The questions parallel your course. Refer to your training guide for completion schedule of exercises.

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Note: *The questions annotated with a "B" next to the question number indicate that question specifically applies to a "B200" serial 1445 and up.*

Self-Check 1

Aircraft Overview

Reference: Technical Manual Chapter 5A

Multiple Choice

1. Operating on the ground at maximum power, the engine exhaust danger area extends to approximately _____ ft.
   a. 10
   b. 20
   c. 30
   d. 40
2. Operating on the ground at idle, the engine exhaust danger area extends to approximately _____ ft.
   a. 10
   b. 20
   c. 30
   d. 40
3. Depending on radar equipment installed, the radar danger area extends up to _____ ft.
   a. 10
   b. 20
   c. 30
   d. 40

True or False

1. _____The cabin emergency exit can be removed from the inside at all times regardless of the exit lock position.
2. _____ The cabin emergency exit cannot be removed from the outside if locked.

Electrical

Reference: Technical Manual Chapter 5C

Multiple Choice

1. The battery is located _____.
   a. in the nose compartment
   b. in the right wing, forward of the main spar
   c. aft of the right wing main spar
   d. aft of the left wing main spar
2. The Right and left generator buses are interconnected by two current limiters rated at _____.
   a. 32A
   b. 32V
   c. 300A
   d. 325A
3. After three unsuccessful attempts to start an engine, wait at least _____ before operating the starter motor (standard 250A Starter/Generator)
   a. 40 seconds
   b. 60 seconds
   c. 30 minutes
   d. 40 minutes
4. When a fault causes an overvoltage, the _____ circuit isolates the overvoltage generator to protect the system from damage.
   a. paralleling
   b. reverse-current
   c. voltage regulating
5. If the active Invertor fails, which of the following will not fail?
   a. Copilot attitude indicator
   b. Radar system
   c. Pilot attitude indicator

6. Before plugging in auxiliary power, what is the minimum battery voltage required?
   a. 20V
   b. 22V
   c. 23V
   d. 28.25V
7. When starting the engines using only battery power, what is the minimum voltage required?
   a. 23V
   b. 22V
   c. 24V
   d. 28V

True or False

1. _____The amber R DC GEN caution annunciator indicates the right generator is off-line.
2. _____Voltage is required to open the avionics master relays.
3. _____During extended ground operation, the auto-ignition system should be on to keep the engine lit.
4. _____The yellow BATTERY CHARGE annunciator illuminates if battery charge current exceeds 7A for six seconds or more.
5. _____After a non-essential or 50A circuit breaker trips in flight, it should be reset after a one second delay.

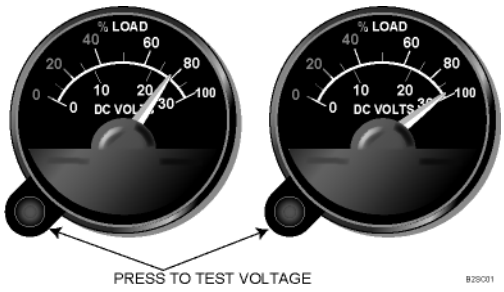
Fill in the Blank

1. Excessive heat buildup in the nickel cadmium battery causes a self-sustaining chemical reaction called _____.

Electrical Test

1. Determine the system status in the following examples, and then answer the questions below each.

A.



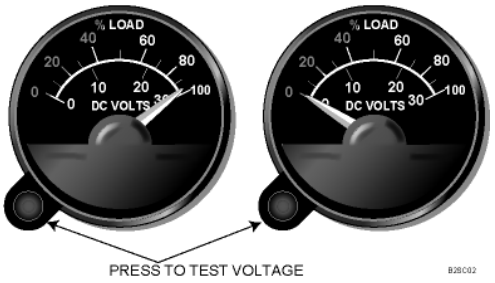
(A1.) Are both generators operating?_____

(A2.) Are the current limiters intact?_____

(A3.) Which inverter should be utilized?_____

(A4.) Is the battery currently charging?_____

B.



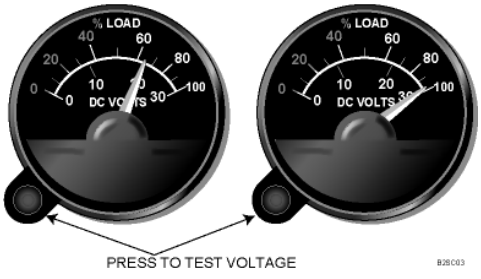
(B1.) Are both generators operating?_____

(B2.) Are the current limiters intact?_____

(B3.) Which inverter should be utilized?_____

(B4.) Is the battery currently charging?_____

C.



(C1.) Are both generators operating?_____

(C2.) Are the current limiters intact?_____

(C3.) Which inverter should be utilized?_____

(C4.) Is the battery currently charging?_____

Draw a simple diagram of the DC electrical system in the space provided below.

Powerplant

Reference: Technical Manual Chapter 5K

Multiple Choice

1. Which of the following is not driven by the accessory gearbox?
   a. FCU
   b. Fuel boost pump
   c. Starter/generator
   d. Propeller tachometer/generator
2. Engine power output is measured by a hydro-mechanical torque-meter that uses _____ as its source.
   a. propeller governor oil
   b. fuel
   c. engine oil
   d. hydraulic
3. Before fuel enters the FCU, it is heated by _____.
   a. an electric element
   b. exhaust gases
   c. the compressor
   d. hot engine oil
4. With the ENG AUTO IGNITION switches in ARM, the igniters automatically energize when the _____.
   a. propeller turns slower than its opposite
   b. opposite engine flames out
   c. opposite engine torque falls below 400 ft-lbs
   d. engine torque falls below 400 ft-lbs
5. The pneumatic section of the FCU uses _____ for operation.
   a. air pressure
   b. oil pressure
   c. fuel pressure
   d. torque pressure
6. How many igniter plugs does each engine have?
   a. 2
   b. 4
   c. 14

7. The _____ lever controls the propeller and fuel flow in REVERSE.
   a. propeller
   b. condition
   c. power
   d. flap
8. The two engine bleed valves release interstage air pressure from the compressor to prevent _____.
   a. hot starts
   b. engine surging
   c. compressor stalling
   d. runaway torque
9. The engine oil tank is located _____.
   a. on the firewall in the engine compartment
   b. aft of the firewall with the nacelle fuel tank
   c. between the engine air intake and the accessory case
   d. in the nose of the aircraft
10. Each compressor stage converts air velocity into _____.
    a. decreased air pressure
    b. increased air pressure
    c. combustible gas
11. After combustion, the hot expanding gases _____ before reaching the compressor turbine.
    a. pass through the fuel nozzles
    b. make a 180° turn
    c. flow straight aft
12. When one of the L/R CHIP DETECT annunciators illuminates, it indicates _____.
    a. propeller overspeed
    b. engine failure
    c. stuck landing gear
    d. metal contaminated oil
13. The red FUEL PRESS annunciator illuminates if the_____ fails.
    a. engine-driven boost pump
    b. oil transfer pump
    c. motive flow valve

14. During starting, what is the maximum allowable ITT temperature (degrees)?
    a. 1,000° for 5 seconds
    b. 925° for 10 seconds
    c. 875° for 15 seconds
    d. 850° for 20 seconds
15. Although you may use certain aviation gasoline fuels in place of the recommended engine fuels, their use is limited to how many hours between overhauls?
    a. 150 hours
    b. 100 hours
    c. 500 hours
    d. 250 hours
16. What is the maximum N_1 speed?
    a. 104%
    b. 100%
    c. 101.5%
    d. 110%

True or False

1. _____The yellow ICE VANE annunciator illuminates when the ice vane doors are fully extended.
2. _____The accessory gearbox drives the starter/generator, scavenge oil pump, fuel control unit and propeller tachometer/generator.
3. _____Engine oil lubricates, cools and cleans the engine; it also changes the prop pitch, heats fuel and measures torque.
4. _____The dual fuel manifolds divide the fuel flow into seven primary and seven secondary fuel nozzles.

Fire Protection

Reference: Technical Manual Chapter 5D

Multiple Choice

1. How many portable fire extinguishers should be in the cabin and cockpit?
   a. 1
   b. 2
   c. 3
   d. 4
2. How many photoconductive cells are mounted in each engine?
   a. 1
   b. 2
   c. 3
   d. 4

True or False

1. _____The engine fire extinguisher bottle pressure check can be accomplished by observing the cockpit indicator with the battery switch on.
2. _____If the green OK lens is illuminated, the test function for the extinguishing system is complete.
3. _____After extinguishing an engine fire, turn off the ENG FIRE annunciator by depressing the MASTER WARN switch on the glare shield.

SPEED Reference: Technical Manual Chapter 5D

Multiple Choice

1. What is the single engine best rate of climb speed?
   a. 121 KIAS
   b. 127 KIAS
   c. 118 KIAS
   d. 133 KIAS
2. What is maximum takeoff weight?
   a. 12.800 lbs
   b. 13,500 lbs
   c. 15,200 lbs
   d. 12,500 lbs
3. You are on approach and have positioned the flaps in the APPROACH setting. What speed should you not exceed?
   a. 200 KIAS
   b. 146 KIAS
   c. 157 KIAS
   d. 181 KIAS
4. What is the maximum glide range speed?
   a. 130 KIAS
   b. 140 KIAS
   c. 155 KIAS
   d. 135 KIAS
5. Above what speed should abrubt control movements not be used?
   a. 184 KIAS
   b. 170 KIAS
   c. 197 KIAS
   d. 181 KIAS

Self-Check 2

Propellers

Reference: Technical Manual Chapter 5K

Multiple Choice

1. The low pitch stop operates by _____.
   a. increasing pitch when weight is on the wheels
   b. regulating fuel to the FCU
   c. controlling speed with flyweights
   d. controlling oil flow to the prop dome
2. While controlled by the governor, a _____ in propeller speed results in a higher blade angle.
   a. an increase
   b. no change
   c. a decrease
3. Operation of three-bladed propellers from 1,750 to 1,850 RPM on approach _____.
   a. may interfere with the instrument landing system
   b. is controlled automatically by the synchrophaser
   c. may cause the opposite-side propeller to autofeather
4. The compressor turbine is driven by _____.
   a. the propeller shaft
   b. unburned fuel
   c. the axial compressor
   d. the flow of high-temperature, high-speed gases
5. The propeller blades feather when _____.
   a. electrically commanded by a servo
   b. the prop control system loses oil pressure
   c. autofeather is selected and the opposite engine fails
6. What is the propeller red line limit?
   a. 1,700 RPM
   b. 2,000 RPM
   c. 1,500 RPM
   d. 1,850 RPM

7. Which of the following actions does the autofeather system perform when an engine fails?
   a. The opposite engine green AUTOFEATHER annunciator extinguishes.
   b. The low pressure switch opens the auto-feather dump valve solenoid.
   c. Both a and b are correct.

True or False

1. _____In the governor range, less oil pressure in the propeller dome results in a higher blade angle.
2. _____There is a continuous circulation of warm oil within the propeller dome.
3. _____The propeller synchroscope spins toward the slower propeller.

Environmental

Reference: Technical Manual Chapter 5J

Fill in the Blank

1. The pressure regulator valve in the pneumatic instrument air system regulates pressure at _____ ±1 PSI.
2. The flapper valve unit incorporates _____ to isolate environmental air from the non-operating engine.
3. The purpose of the safety valve is to provide _____ in case of normal outflow valve failure or when the cabin pressure switch is in DUMP.
4. The CABIN ALT gauge has two needles. One indicates Cabin Altitude, the other indicates _____.

Multiple Choice

1. A _____-type heat exchanger is installed in the wing root to cool environmental air routed to the cabin.
   a. radiant
   b. radiator
   c. air to liquid
   d. liquid to air
2. The three positions on the BLEED AIR VALVE switches are _____.
   a. OPEN/ENVIR/CLOSE
   b. OPEN/INSTR OFF/OFF
   c. OPEN/ENVIR OFF/INSTR & ENVIR OFF
   d. INSTR & ENVIR OPEN/ENVIR OFF/INSTR OFF
3. The _____ switch is used to activate the surface deice system.
   a. DEICE/ANTI-ICE
   b. SURFACE DEICE
   c. DEICE
   d. DEICE CYCLE
4. Which three of the following are supplied by the vacuum system?
   a. Pressurization controls
   b. Air-driven flight instruments
   c. Cabin door seal
   d. Wing and tail deice boots

5. The outflow valve responds to signals from the _____.
   a. cabin pressure switch
   b. cabin pressure indicating system
   c. ENVIR switch
   d. pressurization controller
6. The positions on the CABIN TEMP MODE selector are _____.
   a. OFF/AUTO/MAN
   b. OFF/AUTO COLD/AUTO HEAT/MAN HEAT
   c. CLOSED/AUTO/MAN
   d. OFF/AUTO/MAN HEAT/MAN COOL
7. With the CABIN TEMP MODE switch in MAN HEAT, both cabin-heat control valves move from full cold to full hot in _____.
   a. 30 seconds
   b. 45 seconds
   c. 1 minute
   d. 1 minute 45 seconds
8. On late model King Air 200s, a switch in the nose gear wheel well has been provided to _____.
   a. reset and activate the air conditioning system
   b. activate the compressor clutch
   c. deactivate the system
   d. deactivate the evaporators only
9. The condenser unit cools and condenses _____.
   a. low pressure, high temperature liquid Freon into gas
   b. high pressure, low temperature gaseous Freon into liquid
   c. high pressure, high temperature liquid Freon into gas
   d. high pressure, high temperature gaseous Freon into liquid
10. The Freon compressor is located in the _____.
    a. left engine nacelle
    b. aft compartment
    c. right main landing gear wheel well
    d. right engine nacelle

True or False

1. _____The cabin door seal is inflated by 18 PSI air from the instrument air system.
2. _____The flight hour meter uses only instrument air to operate.
3. _____The PNEUMATIC PRESSURE gage monitors system pressure between 0 and 21 PSI.
4. _____The rudder boost system utilizes differential bleed air pressure (△ 60 PSI) to trigger actuation of rudder boost if an engine fails.
5. _____The flow control unit is powered open when the BLEED AIR VALVE switch is in OPEN.
6. _____Air passing through the muffler/mixing plenum is divided and travels in two different directions.
7. _____The TEST position of the CABIN PRESS switch should be used during taxi.
8. _____The AFT BLOWER switch is located on the ENVIRONMENTAL control panel.
9. _____With the CABIN TEMP MODE switch in AUTO, the vent blower operates at high speed.
10. _____The aft evaporator unit has two blower units to circulate air to a floor outlet and a ceiling outlet.
11. _____Fresh air is provided by a ram air scoop located on the left side of the nose.

Miscellaneous

Reference: Technical Manual Chapter 5I

Fill in the Blank

1. The aircraft has a 22 cu. ft oxygen bottle. There are two crewmembers and two passengers on board. With a full oxygen bottle, if all four people go on oxygen, the oxygen supply will last _____.
2. In order to reduce the amount of oxygen used, the oxygen selector lever is placed in the NORMAL position to _____ the oxygen with cabin air.
3. The oxygen bottle pressure regulator reduces high pressure to approximately _____ PSI.
4. With 1,300 PSI of oxygen remaining at 0°C, oxygen duration is reduced by approximately _____ percent.
5. The maximum cabin pressure differential for the King Air B200 is _____ PSID.

Multiple Choice

1. After donning a crew oxygen mask, enable the microphone by _____.
   a. pulling the oxygen pull handle
   b. selecting the microphone selector switch to OXYGEN MASK
   c. selecting the VHF/UHF radio selector switch to OXY INT
   d. placing the switch on the oxygen mask to MASK
2. The nominal pressure of the oxygen storage bottle at 70°F should indicate _____ PSI.
   a. 1,800 to 1,850
   b. 1,500 to 1,600
   c. 1,000 to 1,200
   d. 500 to 1,000

3. The ALT WARN annunciator illuminates at _____ ft altitude.
   a. 12,000
   b. 12,150
   c. 12,300
   d. 12,500
4. If pressurization is lost at 25,000 ft altitude, there is (are) _____ minute(s) of useful consciousness.
   a. 1/2
   b. 1 to 2
   c. 3 to 5
   d. 5 to 10
5. What is the procedure for using the First Aid Oxygen over the lavatory?
   a. Pull PASSENGER MANUAL O'RIDE
   b. Remove mask from overhead and pull lanyard
   c. Remove mask from overhead, flow is automatic
   d. Remove mask from overhead, and switch supply valve ON.
6. The DUCT OVERTEMP annunciator illuminates at _____.
   a. 250°F
   b. 275°C
   c. 300°F
   d. 300°C

Sequencing

Place the following checklist memory items in correct order (1, 2, 3, etc.).

1. ENGINE FAILURE/EMERGENCY ENGINE SHUTDOWN

   _____ Propeller – FEATHERED

   _____ Fire Extinguisher – ACTUATE

   _____ Condition Lever – CUT-OFF

   _____ Fuel Firewall Valve – CLOSED

2. EMERGENCY DESCENT

_____ Propeller Controls – FULL FORWARD

_____ Airspeed – 181 KIAS MAXIMUM

_____ Landing Gear – EXTEND

_____ Power Levers – IDLE

_____ Flaps – APPROACH

Flight Controls

Reference: Technical Manual Chapter 5E

Fill in the Blank

1. The aileron trim tab is located on the _____.
2. The flap handle has an APPROACH detente, which equals _____of flap.
3. The flap position indicator receives a signal from the position transmitter on the_____.
4. The rudder boost system aids the pilot in maintaining directional control if an engine fails or_____.
5. A safety mechanism interrupts power to the flap motor in the event of split flaps_____ degrees differential.
6. With the flaps selected to UP or APPROACH and either or both power levers retarded below_____ the landing gear warning system is activated.
7. The lift computer processes signals from the lift transducer and the_____ sensor prior to triggering the stall warning horn.

Multiple Choice

1. The AILERON TAB control knob is located on the _____.
   a. pilot's instrument panel
   b. copilot's instrument panel
   c. pilot's side panel
   d. center pedestal
2. The aileron trim tab is positioned by _____.
   a. an electrically controlled hydraulic servo
   b. a drum-cable and jackscrew actuator
   c. push-pull tubes and bellcranks
   d. an electric motor attached to the trim tab.
3. Pressing the pitch trim bi-level trim disconnect switch to the first level momentarily disconnects the _____.
   a. autopilot
   b. autopilot and yaw damper system
   c. autopilot, yaw damper and electric elevator trim

4. Use of the yaw damper system is required at altitudes above _____ ft.
   a. 10,000
   b. 12,000
   c. 15,000
   d. 17,000
5. For ground operations, the power to the electrically heated lift transducer drops to _____ VDC.
   a. 6
   b. 12
   c. 18
   d. 22.5
6. During preflight run up, both engines are running; one power lever is at idle while advancing the other. Rudder boost system operation is verified by _____.
   a. the RUDDER BOOST light illuminating
   b. rudder pedal movement
   c. the landing gear handle light flashing
   d. the stall warning horn sounding
7. To prevent over-travel, the flap motor incorporates a dynamic braking system consisting of _____.
   a. mechanical stops at each end of flap travel
   b. hydraulic travel-limiting cylinders
   c. two sets of motor windings
   d. over-travel springs

True or False

1. _____On King Air 200s, pressing the trim-disconnect switch with the ELEV TRIM switch on illuminates a green ELEC TRIM OFF light on the center pedestal.
2. _____On autopilot-equipped aircraft, the yaw damper utilizes the rudder boost servo for rudder control.
3. _____With the landing gear warning system initiated, pressing the WARN HORN SILENCE button silences the horn and turns off the landing gear handle light.

Self-Check 3

Fuel System

Reference: Technical Manual Chapter 5F

Fill in the Blank

1. Fuel flow from the nacelle tanks to the wings tanks is prevented by a(n) _____.
2. A heated vent and a NACA vent provide _____ venting for the wing tanks.
3. The fuel system has a maximum usable quantity of _____ U.S gallons.

Multiple Choice

1. Each auxiliary (center section) fuel tank has a fuel capacity of _____ U.S gallons.
   a. 66
   b. 79
   c. 84
   d. 95
2. Transfer of fuel from the auxiliary fuel tank to the nacelle tank is made possible through incorporation of _____.
   a. gravity flow lines
   b. a fuel boost pump
   c. an electric fuel transfer pump
   d. a jet transfer pump
3. The fuel quantity indicators are marked in _____.
   a. lbs x 10
   b. lbs x 100
   c. U.S gallons x 10
   d. U.S gallons x 100
4. Positioning the fuel quantity selector switch to MAIN provides a quantity reading for the _____ tank(s).
   a. wing
   b. nacelle
   c. wing and nacelle
   d. wing, nacelle and auxiliary

5. The nacelle tank standby boost pump can maintain a head pressure of approximately _____ PSI.
   a. 10
   b. 20
   c. 30
   d. 40
6. In case of engine-driven boost pump failure, a standby electrically powered fuel pump is located in each _____ tank.
   a. wing
   b. nacelle
   c. auxiliary
7. During normal operations, a red FUEL PRESS light illuminates if the fuel pressure at the fire wall fuel filter drops below _____ ±1.
   a. 10 PSI
   b. 10 GPH
   c. 10 PPH
8. You have just refueled aviation gas 100LL blue. Your selected cruise altitude for this flight is 28,000 ft. On climb through 17,000 ft you realize one standby boost pump is not operating. May you continue to 28,000 ft?
   a. No
   b. Yes
   c. only if VFR
   d. with a two pilot crew
9. Which one of the following statements is not true?
   a. You should not put any fuel into the auxilliary tanks unless the main tanks are fuel.
   b. Maximum allowable fuel imbalance between wing tanks is 1,000 lbs.
   c. You should not takeoff unless you have at least 265 lbs of fuel in each main tank.
   d. Crossfeeding of fuel is not permitted unless both engines are operating.
10. During your flight, a primary boost pump and standby pump have failed. What is the limit on the high pressure pump?
    a. 10 hours
    b. 15 hours
    c. 5 hours
    d. 20 hours

11. According to the flight manual, when can you put fuel in the auxiliary tanks?
    a. only when the mains are full
    b. only when the flight exceeds 3 hours
    c. anytime the weather is IFR
    d. anytime
12. When does the "NO FUEL TRANSFER" light illuminate?
    a. only when the AUX has fuel but not transferring
    b. anytime there is less than 100 lbs of fuel remaining
    c. only when the main tanks are full
    d. anytime the fuel stops transferring from the nacelle tank.

True or False

1. _____A fuel crossfeed line is designed to allow for fuel transfer from fuel tanks on one side of the aircraft to fuel tanks on the other side.

Draw a simple diagram of the fuel system in the space provided below.

Landing Gear

Reference: Technical Manual Chapter 5H

Fill in the Blank

1. Normal rudder pedal steering of the nose wheel allows left or right steering up to _____.
2. The brake system normally is serviced with _____ hydraulic fluid.
3. Normal strut extension for landing gear *with standard tires* and full fuel is _____ inches.
4. Normal strut extension for landing gear *with high-flotation tires* and full fuel is _____ inches.
5. The solenoid-operated down-lock hook is actuated by the _____.
6. If the landing gear safety switch on the right main gear fails, the downlock hook releases by _____.
7. In the event of mechanical malfunction, the landing gear motor is protected by a _____.

Multiple Choice

1. Main gear door operation during landing gear extension and retraction is accomplished _____.
   a. electrically
   b. hydraulically
   c. pneumatically
   d. mechanically
2. 2. The nose gear assembly has a shimmy dampener that _____ to dampen nosewheel shimmy.
   a. uses two sets of springs
   b. incorporates friction plates
   c. bleeds hydraulic fluid through an orifice
   d. uses sealed pneumatic bellows
3. The mechanical nose gear actuator is operated by the landing gear motor through the use of _____.
   a. push-pull tubes
   b. duplex chains
   c. cables and pulley wheels
   d. a jackscrew

4. On a **King Air 200 with hydraulic landing gea**r, the fill reservoir is located _____.
   a. in the left avionics compartment
   b. in the right avionics compartment
   c. inboard of the left nacelle and forward of the front spar
   d. inboard of the right nacelle and forward of the front spar
5. On a **King Air 200 with hydraulic gea**r, the hydraulic pump normally supplies fluid at _____ ±55 PSI.
   a. 1,000
   b. 1,800
   c. 2,350
   d. 2,775
6. On a **King Air 20**0, a landing gear protection circuit interrupts power to the powerpack if operation continues more than _____ seconds.
   a. 14
   b. 22
   c. 30
   d. 45
7. On a **King Air 200 with hydraulic landing gear,** during normal operation, the pump operates if a pressure drop of _____ PSI is sensed.
   a. 5,000
   b. 1,960
   c. 300
   d. 270
8. To operate the landing gear manually, start by _____.
   a. placing the landing gear control handle halfway between UP and DOWN
   b. pressing the HD LT TEST button
   c. pressing the DOWNLOCK REL button
   d. pulling the LANDING GEAR RELAY CB
9. Pressing the HDL LT TEST button causes the _____.
   a. landing gear warning horn to sound
   b. landing gear handle lights to illuminate
   c. both a and b

10. On a King Air with a mechanically actuated landing gear, pumping the handle adjacent to the emergency engage handle _____ and lowers the gear.
    a. ratchets the gearbox
    b. supplies hydraulic pressure to the landing gear actuators
    c. directly operates push-rods and bellcranks
    d. disengages the friction clutch
11. The EMERGENCY ENGAGE handle is operated by _____.
    a. pressing the handle down until fully seated
    b. pressing the handle down and rotating it about 60°
    c. pulling the handle up and rotating it clockwise about 60°
    d. pulling the handle up and rotating it counterclockwise about 60°
12. Landing gear should not be extended beyond what airspeed?
    a. 181 KIAS
    b. 202 KIAS
    c. 200 KIAS
    d. 195 KIAS
13. Above what airspeed should landing gear not be retracted?
    a. 157 KIAS
    b. 181 KIAS
    c. 163 KIAS
    d. 146 KIAS

True or False

1. _____The landing gear downlock hook automatically unlocks when the aircraft leaves the ground.
2. _____On a King Air with a mechanically actuated landing gear, to prevent over-travel, the landing gear motor dynamic braking system stops the gear.
3. _____The landing gear system has two motors: one to retract the gear and one to extend the gear.
4. _____On a King Air 200 with hydraulic landing gear, the hand pump manually forces hydraulic fluid to the landing gear actuators during manual gear extension.
5. _____With a *mechanical landing gear syste*m, the gear may be retract-ed electrically after a practice manual extension.
6. _____The fill reservoir is an unpressurized reservoir.
7. _____The parking brake is set by pumping the copilot's brake pedals then pulling the parking brake handle.
8. _____The King Air 200 aircraft is not fitted with an emergency brake system.

Ice and Rain Protection

Reference: Technical Manual Chapter 5G

Fill in the Blank

1. A false airspeed indication could be caused at altitude by _____.
2. With the windshield anti-ice switch in HI, only the _____ areas are heated.
3. The pitot tubes are heated electrically by positioning the _____ switch on the pilot's right subpanel.
4. When the ice vanes are extended, the two advisory annunciators illuminate; there is a(n) _____ in torque and a slight _____ in ITT.
5. The wing ice lights are on the outboard side of the _____.
6. Before activating the wing and stabilizer deice system, there should be at least _____ inch(es) of ice formed on the leading edge of the wing.
7. If excessive heat reaches the bleed air sensor line, the line melts and actuates the _____ annunciator.

Multiple Choice

1. With the engine auto-ignition system armed, the ignition comes on when _____.
   a. engine torque falls below 400 ft-lbs
   b. an engine flames out
   c. RPM falls 10% without throttle movement
   d. both a and b
2. For anti-icing, the ice vanes should be extended at or below _____ and flight free of visual moisture cannot be assured.
   a. 5°C
   b. 15°C
   c. 15°F
   d. 32°F
3. Engine air inlet lip heat is provided by (an) _____.
   a. anti-ice liquid solution
   b. engine bleed air
   c. P3 air from the instrument air system
   d. hot engine exhaust gases

4. After positioning the ice vane switch to extend or retract, the yellow L/R ICE VANE light takes _____ to illuminate if the selected position is not attained.
   a. 3 seconds
   b. 15 seconds
   c. 30 seconds
   d. 1 minute
5. What is the minimum outside air temperature under which the pneumatic surface deice boots may be operated?
   a. -40.0° C/F
   b. -53.9° C
   c. -43.4° C
   d. -60.0° C

True or False

1. _____After using the windshield wipers and positioning the switch to off, the system automatically parks the wipers.
2. _____While using the manual prop deice switch, the load is shown on the propeller ammeter.

Self-Check 1 Answer Key

Refer to page 5

Aircraft Overview

Multiple Choice

1. d
2. b
3. c

True or False

1. True
2. True

Electrical System

Multiple Choice

1. b
2. d
3. c
4. c
5. a
6. a
7. a

True or False

1. True
2. True
3. False
4. True
5. False

Fill in the Blank

1. thermal runaway

Diagrams

Refer to the DC system schematic on page 41.

Electrical Test

Fill in the Blank

A1. NO Left
A2. NO Right
A3. inverter number 2
A4. NO

B1. NO – Right
B2. NO – Right
B3. inverter number 1
B4. YES

C1. NO Left
C2. NO Right
C3. inverter number 2
C4. NO

Power Plant

Multiple Choice

1. d
2. c
3. d
4. d
5. a
6. a
7. c
8. c
9. c
10. b
11. b
12. d
13. a
14. a
15. a
16. c

True or False

1. False
2. False
3. True
4. True

Fire Protection

Multiple Choice

1. b
2. c

True or False

1. False
2. True
3. False

Speed

1. a
2. d
3. a
4. d
5. d

Self-Check 2 Answer Key

Refer to page 15

Propellers

Multiple Choice

1. d
2. a
3. a
4. d
5. b
6. b
7. c

True or False

1. True
2. True
3. False

Environmental

Fill in the Blank

1. 18
2. check valves
3. pressure relief
4. differential pressure

Multiple Choice

1. b
2. c
3. d
4. a, b, d
5. d
6. d
7. c
8. a
9. d
10. d

True or False

1. False
2. False
3. True
4. False
5. True
6. True
7. False
8. True
9. False
10. False
11. False

Miscellaneous

Fill in the Blank

1. 24 minutes
2. dilute
3. 70
4. 25
5. 6.6

Multiple Choice

1. b
2. a
3. d
4. c
5. d
6. c

Sequencing

1. 2, 4, 1, 3
2. 2, 5, 4, 1, 3

Flight Controls

Fill in the Blank

1. left aileron inboard training edge
2. 40% or 14°
3. right inboard flap
4. if there is a large variation in power between engines
5. 3 to 5 °
6. 79 to 81% N_1
7. flap position

Multiple Choice

1. d
2. b
3. b
4. d
5. b
6. b
7. c

True or False

1. False
2. False
3. False

Self-Check 3 Answer Key

Refer to page 25

Fuel System

Fill in the Blank

1. flapper-type check valve
2. pressure
3. 544

Multiple Choice

1. b
2. d
3. b
4. c
5. c
6. b
7. a
8. a
9. d
10. a
11. a
12. a

True or False

1. False

Diagram

Refer to the fuel system schematic on page 42.

Landing Gear

Fill in the Blank

1. 14° from center
2. MIL-H-5606
3. 4.00
4. 5.75
5. right landing gear squat switch
6. manually operating the DOWNLOCK REL
7. spring-loaded friction clutch

Multiple Choice

1. d
2. c
3. b
4. c
5. d
6. a
7. c
8. d
9. b
10. a
11. c
12. a
13. c

True or False

1. True
2. True
3. False
4. True
5. True
6. False
7. False
8. True

Ice and Rain Protection

Fill in the Blank

1. pitot icing
2. outboard
3. PITOT
4. decrease; increase
5. nacelles
6. 1/2
7. BL AIR FAIL

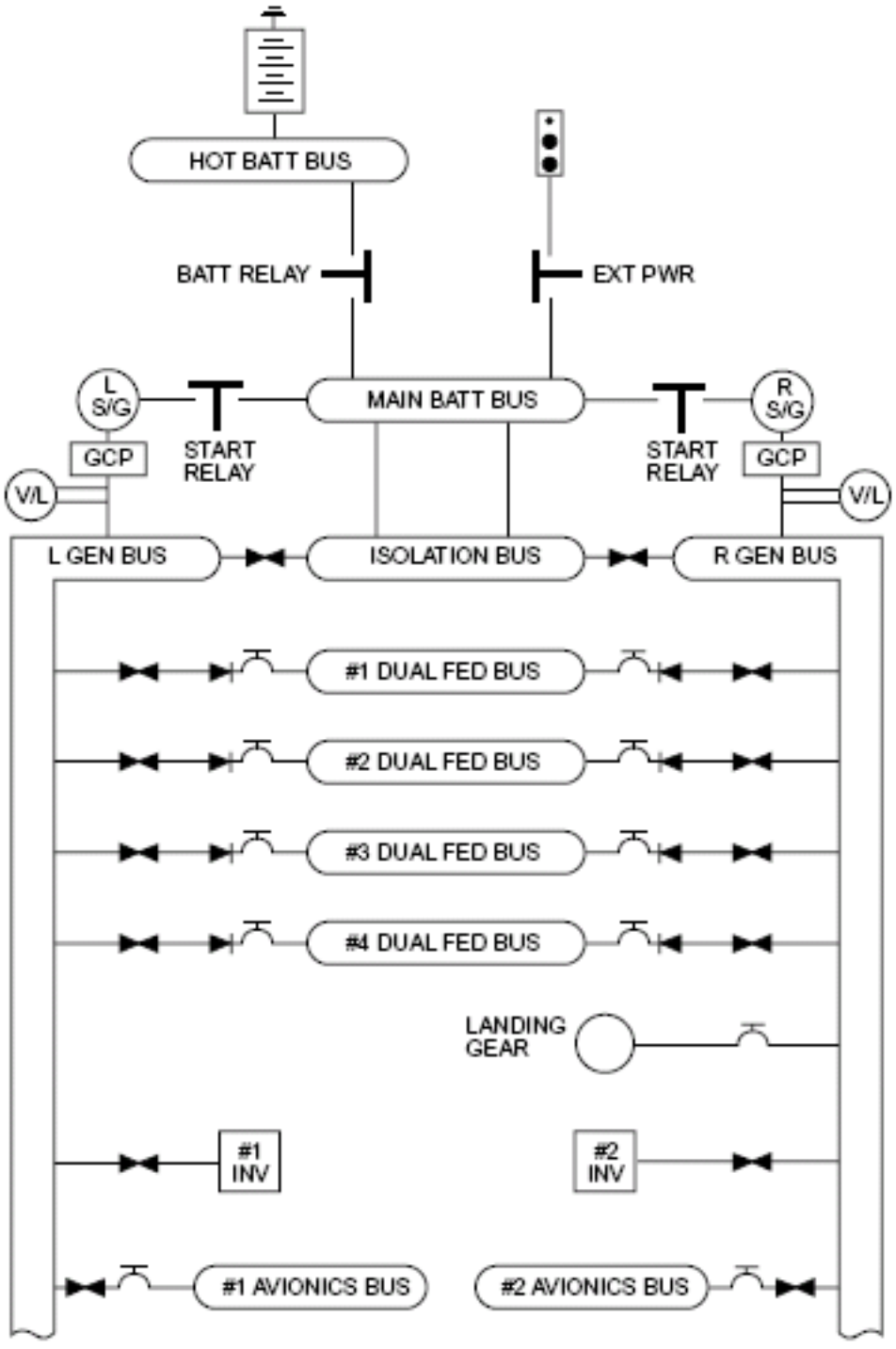
Multiple Choice

1. d
2. a
3. d
4. b
5. a

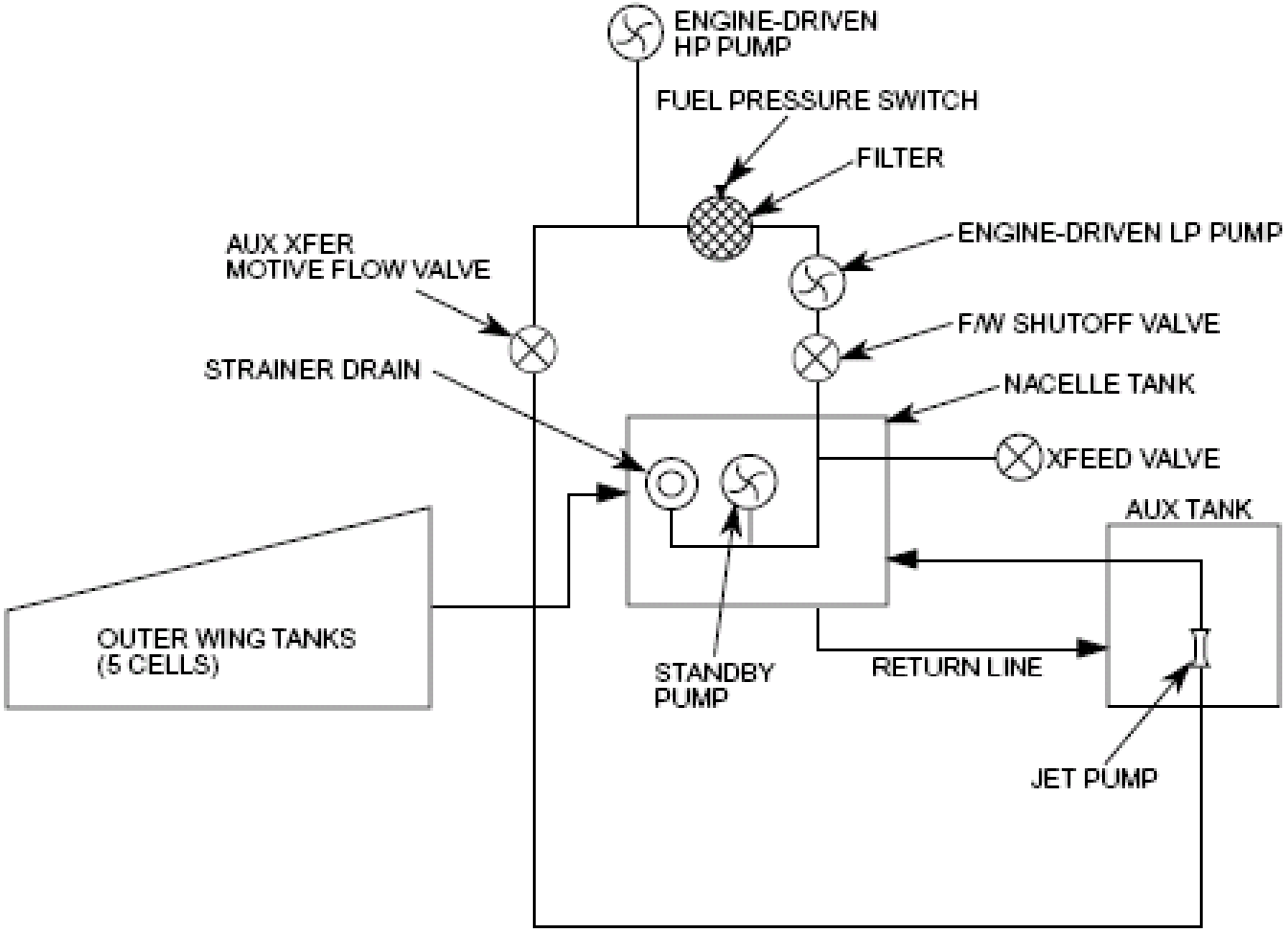
True or False

1. False
2. False

DC Electrical System



Fuel System


ENGINE-DRIVEN
HP PUMP
FUEL PRESSURE SWITCH
FILTER
ENGINE-DRIVEN LP PUMP
AUX XFER
MOTIVE FLOW VALVE
F/W SHUTOFF VALVE
STRAINER DRAIN
NACELLE TANK
XFEED VALVE
AUX TANK
OUTER WING TANKS
(5 CELLS)
STANDBY
PUMP
RETURN LINE
JET PUMP