



DEPARTAMENTO "SEGURIDAD OPERACIONAL"
SUBDEPARTAMENTO "LICENCIAS"
SECCIÓN EVALUACIONES

**EXAMEN POR MATERIAS PARA USO DE LOS POSTULANTES A
LA HABILITACIÓN DE TIPO EN MATERIAL AIRBUS A-320.**

A.- AIR CONDITION AND PNEUMATICS

- 1.- The vent fan runs any time there is a normal ships power and the isolation valves are open.
A.- True.
B.- False.

- 2.- When the pack flow control knob is positioned to HI, air flow is:
A.- 80% of normal rate.
B.- 100% of normal rate.
C.- 120% of normal rate.
D.- 150% of normal rate.

- 3.- The RAM AIR switch should be used:
A.- At any time.
B.- Only when differential pressure is less than 1 psi.
C.- When differential pressure is more than 1 psi.
D.- Only after outflow valve is fully opened.

- 4.- When would you select PACK FLOW to HI?
A.- Smoke removal or hot/humid conditions.
B.- When passengers are complaining it is too cold.
C.- Above FL 350.
D.- Above FL 250.

- 5.- **What happens to the pack flow control valves during engine start?**
- A.- They must be selected off.
 - B.- They must be selected off on cold days only.
 - C.- They must be selected off on hot days only.
 - D.- They automatically close.
- 6.- **When does normal pressurization occur?**
- A.- After second engine start.
 - B.- Pressurization occurs during taxi.
 - C.- Pressurization occurs during the takeoff roll.
 - D.- After rotation.
- 7.- **When does normal depressurization occur?**
- A.- 100 feet AGL above touchdown.
 - B.- It is complete three minutes after touchdown.
 - C.- After flap retraction.
 - D.- On landing touchdown.
- 8.- **Which statement is correct regarding illumination of the amber AFT ISOL VALVE fault light?**
- A.- Automatically closes the aft cargo compartment isolation valves.
 - B.- Means that either the inlet or outlet isolation valve(s) disagrees with the switch position.
 - C.- Indicates that the extract fan has stopped.
 - D.- All of the above.
- 9.- **Pressurization controllers receive inputs from:**
- A.- LGCIU, ADIRU, FMGS, and EIU.
 - B.- LGCIU's and the MCDU.
 - C.- LGCIU's and pitot static sources.
 - D.- MCDU and lgciu/'S.

- 10.- With APU BLEED ON and engine BLEED switches ON with engines running. What is the position of the engine bleed valves?**
- A.- Closed.
 - B.- Open.
 - C.- Depends on the crossbleed selector.
- 11.- Pressurization is normally automatic. Can you interfere with it?**
- A.- Yes, CABIN PRESS MODE SEL to OVERRIDE and MAN V/S CTL toggle switch.
 - B.- Yes, manually set landing elevation using the LND ELEV AUTO selector.
 - C.- Both are correct.
- 12.- What is the function of the ram air valve?**
- A.- Ventilation while on the ground.
 - B.- Emergency smoke removal and ventilation in the event of dual pack failure.
 - C.- Avionics cooling.
 - D.- Cargo ventilation & avionics cooling.
- 13.- Placing the EXTRACT push button to override:**
- A.- De-energizes the extract fan.
 - B.- Places the avionics ventilation system in the closed configuration.
 - C.- Insures the extract fan will continue to be energized.
 - D.- Places the avionics ventilation system in the open configuration.
- 14.- The Ram Air valve:**
- A.- Should be opened for increased ventilation while on the ground.
 - B.- Will open automatically after engine start.
 - C.- Should be opened for increased ventilation while in flight.
 - D.- Must be manually activated.

15.- The HOT AIR valve push button controls:

- A.- The trim air valve.
- B.- The hot air manifold.
- C.- The engine bleed valves.
- D.- The pack flow control valves.

16.- Hot air fault light illuminates on the air conditioning panel.

- A.- The hot air press. reg. valve opens and the trim air valves close.
- B.- The hot air press. reg. valve closes and the trim air valves open.
- C.- The hot air press. reg. valve closes and the trim air valves close.
- D.- The hot air press. reg. valve opens and the trim air valves open.

17.- To enable Ram air to the mixer unit, The Ram air switch should be used:

- A.- At any time.
- B.- Only when differential pressure is less than 1 psi.
- C.- When pressure is greater than 1 psi diff.
- D.- Only after outflow valve is fully opened.

18.- Pack controller, primary channel failure.

- A.- The secondary computer operates as a backup mode and regulation is not optimized.
- B.- The secondary computer takes over (all functions as normal)
- C.- Pack is lost.
- D.- Pack outlet temperature is controlled at 15 deg.C

19.- Pack controller, secondary channel failure.

- A.- No effect on pack regulation backup mode is lost.
- B.- Pack is lost.
- C.- No effect (all modes still available).
- D.- Pack outlet temperature is controlled at 15 deg. C.

20.- Pack controller, primary and secondary channel failure.

- A.- Pack outlet temperature is controlled to between 5 and 30 deg. C by the anti-ice valve.
- B.- The pack is closed.
- C.- The packs deliver a fixed temperature of 20 deg. C.

21.- Bleed air supplied from the APU (APU bleed valve open), the pack flow is automatically selected:

- A.- High.
- B.- Normal.
- C.- Low.
- D.- Econ. Flow.

22.- Trim air valve, each one optimizes the temperature by:

- A.- Adding hot air.
- B.- Adding fresh air.
- C.- Modulation of pack flow.
- D.- Adding recirculated air.

23.- Hot air pressure regulating valve:

- A.- Regulates the pressure of hot air tapped upstream of the packs.
- B.- Is spring loaded open in the absence of air.
- C.- Opens automatically in case of duct overheat.
- D.- Opens automatically if the cabin trim air valve fails.

24.- Pack flow control valve:

- A.- Is pneumatically operated and electrically controlled.
- B.- Electrically operated and pneumatically controlled.
- C.- Opens automatically during engine starting.
- D.- Is spring loaded to open.

- 25.- Engine flow demand, when the heating or cooling demand in one zone cannot be satisfied.**
- A.- The minimum idle must be increased manually.
 - B.- The minimum idle is increased automatically.
 - C.- In any case, flight idle is sufficient.
 - D.- The APU must be used to supply additional air.
- 26.- What is the Norm. Max. cabin altitude?**
- A.- 8,000 ft.
 - B.- 9,550 ft +/-350 ft.
 - C.- 14,000 ft.
 - D.- 800 ft.
- 27.- What is the Max. negative Diff. pressure for the cabin?**
- A.- 0 psi.
 - B.- 1 psi.
 - C.- 2 psi.
 - D.- 8.6 psi.
- 28.- It is permissible to use simultaneously packs and Lp ground unit during long stops in a hot airfield.**
- A.- Yes.
 - B.- No.
- 29.- Temperature regulation for the A-320 is controlled by:**
- A.- One zone controller and two pack controllers.
 - B.- Two pack controller and the BMC's.
 - C.- The BMC's.

- 30.- Under what conditions should the pack flow controller be set to high?**
A.- In cold conditions to achieve a higher cabin temperature range.
B.- With a low passenger load to increase cabin air flow.
C.- With a high passenger load in hot conditions in order to help reduce the cabin temperature.
- 31.- The lavatory/galley extract fan operates:**
A.- Only on the ground.
B.- Only in flight.
C.- Continuously when electrical power is available.
- 32.- If bleed air is being supplied by the APU or if one pack fails, pack flow will go to what rate?**
A.- Low.
B.- Medium.
C.- High.
- 33.- An amber Fault light in the Hot Air p/b indicates:**
A.- Valve position disagrees with commanded position.
B.- A duct overheat is detected.
C.- Either A or B.
- 34.- What happens to the outflow valve when the Ram Air switch is selected ON?**
A.- The outflow valve opens immediately.
B.- The outflow valve opens if cabin differential pressure is less than 1 psi.
C.- Normal outflow valve control is maintained.
- 35.- When either the Blower or Extract switches are in OVRD, air from the air conditioning system is added to ventilation air.**
A.- True.
B.- False.

- 36.- What are the different sources of air for air conditioning and pressurization?**
- A.- Engine bleed air.
 - B.- Engine bleed air and recirculated air.
 - C.- Engine bleed air and recirculated air, or if selected, APU bleed air and recirculated air.
 - D.- None of the above.
- 37.- Transfer between the two cabin pressure controllers is:**
- A.- Accomplished with a switch overhead.
 - B.- Automatic after landing or in case the operating controller fails.
 - C.- Automatically at each takeoff.
- 38.- How many temperature selectors are there on the A-320? How many temperature zones are there?**
- A.- Three rotary temperature selectors and one zone.
 - B.- Three rotary temperature selectors, one each for the cockpit zone, the forward cabin zone, and the aft cabin zone.
 - C.- Two rotary temperature selectors, one for the cockpit and first class zone and one for the aft cabin zone.
 - D.- Four rotary temperature selectors and four zones.
- 39.- The third motor (manual) in the pressurization system is activated:**
- A.- Automatically if both automatic motors fail.
 - B.- In sequence after each landing.
 - C.- When the Cabin Press Mode Sel switch is positioned to Man.
- 40.- How many trim air valves are there?**
- A.- One trim air valve.
 - B.- Three: one each for the cockpit zone, the forward cabin zone, and the aft cabin zone.
 - C.- Two: one for the cockpit and first class zone, and one for the cabin zone.
 - D.- Four: one each for the cockpit zone, the first class zone, and two for the aft zone.

- 41.- Pressurization indications are found which ECAM page(s)?**
- A.- Only on the CAB PRESS page.
 - B.- BLEED page.
 - C.- The inflight ECAM cruise page and the CAB PRESS page.
 - D.- Both A and B.
- 42.- With the pressurization system in the automatic mode, which valves are closed when the ditching push button is selected on?**
- A.- All valves below the water line.
 - B.- APU inlet.
 - C.- Only the avionics cooling valves.
 - D.- The engine bleed valves.
- 43.- Which configuration is the avionics ventilation system in while airborne with no abnormalities present?**
- A.- Open.
 - B.- Smoke.
 - C.- Fire.
 - D.- Closed.
- 44.- Avionics ventilation system indications may be found on which ECAM page(s)?**
- A.- Only the CAB PRESS page.
 - B.- The inflight ECAM cruise page.
 - C.- The inflight ECAM cruise page and the CAB PRESS pages.
 - D.- Only the BLEED page.
- 45.- Recirculation fans in the air conditioning system direct filtered cabin air to which area?**
- A.- The pneumatic duct, upstream of the packs.
 - B.- The avionics compartment.
 - C.- The mixing unit.

- 46.- The temperature of each aircraft zone is optimized by means of?**
- A.- A hot air pressure regulating valve.
 - B.- A zone control valve.
 - C.- A trim air valve.
 - D.- Both A and B.
- 47.- Under what conditions should the pack flow controller be set to LOW?**
- A.- With a low passenger load to reduce bleed air demand and improve fuel efficiency.
 - B.- With a high passenger load to reduce cabin temperature.
 - C.- In cold conditions to achieve a higher cabin temperature range.
 - D.- With a low passenger load to increase cabin temperature.
- 48.- During the exterior preflight on a warm day, in what position would you expect to find the avionics ventilation system INLET and EXTRACT valves to be in?**
- A.- Open.
 - B.- Intermediate.
 - C.- Closed.
 - D.- Fire.
- 49.- Hot air press. reg. valve failed open.**
- A.- Optimized regulation is lost.
 - B.- The temperature stays at the value selected.
 - C.- No effect.
 - D.- Cabin temperature will be controlled at the upper limit 30 deg. C.
- 50.- When would you select RAM AIR ON?**
- A.- If additional cooling is required on the ground.
 - B.- Dual packs failure or smoke removal.
 - C.- When pack temperatures are too high.
 - D.- When there is smoke in the cabin.

- 51.- What happens when a temperature selector rotary knob is adjusted?**
- A.- A signal is sent to the zone controller requesting a different temperature.
 - B.- Nothing as there is no relationship between a temperature selector knob and the trim air valve.
 - C.- The associated trim air valve immediately moves to a different position.
- 52.- In normal flight in closed circuit configuration, the avionics ventilation system controls the temperature of the cooling air by:**
- A.- Adding air conditioned air to the flow.
 - B.- Extracting air overboard.
 - C.- Adding avionics bay air.
 - D.- Passing air through a skin heat exchanger.
- 53.- What limitation is associated with the ram air valve?**
- A.- Do not open if cabin pressure is greater than 1 psi.
 - B.- Only open while on the ground.
 - C.- Will not open if the DITCHING switch is off.
 - D.- Operation is automatic.
- 54.- Both pressurization auto controllers are set by the active flight plan loaded in the MCDU. The QNH entry on the MCDU Approach Performance page refines the depressurization shedule for the landing.**
- A.- True.
 - B.- False.
- 55.- Aft cargo indications may be found on which ECAM page (s)?**
- A.- Only the ECAM cruise page.
 - B.- Only the BLEED page.
 - C.- Only the CAB PRESS page.
 - D.- The ECAM cruise page and the COND page.

- 56.- When APU is supplying the packs, the pack controller sends a demand signal to increase airflow when a zone temperature cannot be satisfied. This signal is sent to the:**
- A.- Pack Ram Air Inlet Flap.
 - B.- APU ECB.
 - C.- Pack Outflow Control Valve.
- 57.- Which of the following statements is correct concerning conditioned air?**
- A.- Conditioned air and trim air are mixed then distributed to each zone.
 - B.- Recirculated air, conditioned and hot trim are mixed then distributed to each zone.
 - C.- Hot trim air is added to the mixing unit before distribution to each zone.
 - D.- recirculating fans draw cabin air to a mixing unit where conditioned air is added.
- 58.- During normal flight, the avionics ventilation system controls the temperature of the cooling air by:**
- A.- Adding air conditioned air to the flow.
 - B.- Extracting air over board.
 - C.- Adding an avionics bay air.
 - D.- Passing air through a skin heat exchanger.
- 59.- Placing the avionics ventilation system in the smoke configuration:**
- A.- Opens the #1 GLC.
 - B.- Opens the cargo under-floor valve.
 - C.- Opens the #2 GLC.
 - D.- De-energizes the blower fan, extract fan runs, and opens the air conditioning extract valves.
- 60.- How can you change pressurization controllers during flight?**
- A.- Cycle the LDG ELEV AUTO knob out of the AUTO position then back to AUTO.
 - B.- Cycle the CABIN PRESS MODE SEL pushbutton to the MAN position then back to AUTO.
 - C.- Cycle the cabin pressurization MAN V/S CTL switch.

- 61.- What position do the pack valves go to in the event of a loss of the bleed system pressure?**
- A.- They remain in their last position.
 - B.- Full open.
 - C.- Mid position.
 - D.- Closed.
- 62.- What is the function of the Pack Flow selector?**
- A.- Allows the pilot to increase pack flow but will not allow a manual decrease in flow if needed by the aircraft demands.
 - B.- Always allows high flow regardless of switch position when the APU is used for air conditioning.
 - C.- Both are correct.
- 63.- What is the maximum altitude associated with the pressurization system?**
- A.- 39,100 feet.
 - B.- 39,800 feet.
 - C.- 41,000 feet.
 - D.- 41,100 feet.
- 64.- Trim air valves are modulated by:**
- A.- The zone controller.
 - B.- Anti-ice valve.
 - C.- Hot air pressure regulating valve.
- 65.- Which statement is TRUE concerning the cargo compartment ventilation?**
- A.- Both cargo compartments are pressurized and heated using both cabin air and hot trim air.
 - B.- Recirculated air, conditioned air, and hot trim air are mixed then distributed to each cargo compartment.
 - C.- Only the aft cargo compartment is heated and ventilated. Cabin ambient air is mixed with hot trim air and drawn through isolation valves by extraction fans.

66.- Aft cargo ventilation is controlled by:

- A.- The aft cargo rotary selector knob.
- B.- The cargo ventilation controller.
- C.- The zone controller and the SDCU.
- D.- The cargo ventilation controller & the aft cargo rotary selector knob.

67.- Placing the BLOWER push button to override:

- A.- Insures the blower fan will continue to run.
- B.- Places the avionics ventilation system in the open configuration.
- C.- De-energizes the blower fan.
- D.- Places the avionics ventilation system in the closed configuration.

68.- How many outflow valves are there?

- A.- One valve with one door.
- B.- One valve with two doors.
- C.- Two valves with only one door visible.
- D.- Two valves (one main + one back-up) with only two doors visible.

69.- At what cabin altitude do you get an ECAM warning?

- A.- 8,800 feet.
- B.- 9,000 feet.
- C.- 9,550 feet.
- D.- 14,000 feet.

70.- If you select a position other than the AUTO detent on the LDG ELEV AUTO selector, how can you see the actual landing elevation value?

- A.- On the ECAM CRUISE.
- B.- On the PRESS page.
- C.- On the ECAM CRUISE or the PRESS page.

- 71.- During Ground function operation, the outflow valve is:**
- A.- Fully open.
 - B.- Fully closed.
 - C.- Positioned according to FMGS demands.
- 72.- The outflow valve is powered by:**
- A.- One of two electric motors.
 - B.- One of three electric motors.
 - C.- Three mechanically linked electric motors.
- 73.- The purpose of the safety valve is to avoid:**
- A.- Excessive positive pressure differential.
 - B.- Excessive negative differential.
 - C.- Both are correct.
- 74.- The safety valves are operated:**
- A.- Electrically.
 - B.- Hydraulically.
 - C.- Pneumatically.
- 75.- When landing elevation is set to AUTO, the landing elevation is sent to the controller from:**
- A.- FMGS.
 - B.- FCU.
 - C.- ADIRS.
- 76.- Apu bleed air, when selected.**
- A.- Has priority over engine bleed air.
 - B.- Will supply bleed air only if the eng bleed pb's are selected off.
 - C.- Will supply air only if the x bleed selector is selected open.
 - D.- Does not have priority over engine bleed air.

- 77.- Bleed air normally comes from the _____ of the engine.**
A.- High pressure stage.
B.- Intermediate stage.
C.- Low pressure stage.
- 78.- Engine bleed air temperature is controlled by:**
A.- Engine oil.
B.- A pre-cooler that uses fan air.
C.- Conditioned air from the mixing unit.
- 79.- If a bmc fails:**
A.- The remaining bmc will automatically assume most of the failed bmc's functions.
B.- All system associated with the failed bmc also fail.
C.- The associated bleed valves close.
D.- None of the above.
- 80.- In flight if the air pressure is insufficient even with the hp valve open:**
A.- The engine spools up automatically.
B.- Engine power has to be increased by the pilot.
C.- Push the high pressure p/b on the overhead panel.
- 81.- The auto position of the x bleed selector opens the crossbleed if:**
A.- An engine bleed valve is open.
B.- The apu bleed valve is open.
C.- When engine start is selected.
- 82.- The crew may directly control the following bleed valves:**
A.- Engine, engine high pressure, apu.
B.- Engine, intermediate pressure, apu.
C.- Engine, apu, crossbleed.

- 83.- When additional pneumatic air is required for anti-ice, engine starting, or air conditioning:**
- A.- The crew must adjust a minimum epr setting.
 - B.- Additional pneumatic air will be requested by the bmc to the fadec's or the apu.
 - C.- Both A and B are correct.
 - D.- None of the above.
- 84.- With the apu running, the apu bleed push button selected on and the x bleed selector to auto, the apu will:**
- A.- Only supply bleed air to left side.
 - B.- Supply pneumatic air to both sides of the aircraft because the pneumatic crossbleed valve automatically opens.
 - C.- Will supply bleed air only to the left side unless the x bleed selector is selected open.
 - D.- Only supply bleed air to the right side.
- 85.- With the loss of pneumatic system pressure, the engine bleed valve will:**
- A.- Remain in its current position.
 - B.- Assume the closed position.
 - C.- Assume the open position.
 - D.- Assume the mid position.

B.- APU

- 1.- **What is the maximum altitude at which the APU may be started using the batteries only?**
 - A.- 15, 000 ft.
 - B.- 20, 000 ft.
 - C.- 25, 000 ft.
 - D.- 39, 000 ft

- 2.- **With nobody in the cockpit, if you have an APU FIRE, which statement is correct?**
 - A.- On the ground, an APU EMER shut down will occur and the APU fire bottle will be discharged automatically.
 - B.- On the ground, you have to perform the ECAM actions to shut down the APU and extinguish the fire from the cockpit.
 - C.- On the ground an APU AUTO shut down will occur but you have to discharge the APU fire bottle manually.
 - D.- In the air, an APU EMER shut down will occur and the APU fire bottle will be discharged automatically.

- 3.- **The basic element of the APU is a single shaft gas turbine which delivers _____ power for driving the accessory gearbox (electrical generator) and produces bleed air (engine starting and pneumatic supply).**
 - A.- 2nd stage compressor
 - B.- 3rd stage turbine
 - C.- 2nd stage turbine.
 - D.- Mechanical shaft

- 4.- **Fire on ground or in flight will cause the APU MASTER SW pushbutton FAULT light to come on.**
 - A.- True.
 - B.- False.

- 5.- **With battery power, what would an APU fire test look like?**
A.- APU FIRE pushbutton illuminated.
B.- SQUIB and DISCH lights illuminated
C.- Both are correct.
- 6.- **The ECB (Electronic Control Box) controls the electric starter**
A.- True.
B.- False
- 7.- **The APU may obtain power for starting from:**
A.- Ground services.
B.- Normal aircraft supply.
C.- The aircraft's batteries or in combination with the external power.
D.- All of the above.
- 8.- **The Electronic Control Box (ECB) is primarily a full authority digital electronic controller that performs the APU system logic for all modes of APU operation such as:**
A.- Sequence and monitoring of start.
B.- Speed and temperature monitoring
C.- Monitoring of bleed air and shut down.
D.- All of the above.
- 9.- **The APU cannot be shut down from outside the aircraft.**
A.- True.
B.- False.
C.- APU SHUT OFF pushbutton on External Power Panel.

- 10.- What are some of the causes for an APU automatic shutdown?**
- A.- Fire (on ground only), EGT overtemperature, No acceleration, low oil pressure.
 - B.- Fire (on ground only), EGT overtemperature, Underspeed, Overspeed, low oil pressure, high oil pressure
 - C.- Fire (on ground only), EGT overtemperature, Reverse flow, Overspeed, low oil pressure, high oil pressure
 - D.- Fire (on ground only), underspeed, overspeed, EGT overtemperature, Reverse flow, Low oil pressure, DC power loss. i. Fire (on ground only), - Underspeed and overspeed, - EGT overtemperature, - Reverse flow, - Low oil pressure, - DC power loss,- No acceleration,- High oil temperature,- ECB failure,- Slow start,- Loss of overspeed protection
- 11.- The basic element of the APU is a single shaft gas turbine which delivers _____ power for driving the accessory gearbox (electrical generator) and produces bleed air (engine starting and pneumatic supply).**
- A.- 2nd. stage compressor.
 - B.- 3rd. stage turbine.
 - C.- 2nd. stage turbine.
 - D.- Mechanical shaft.
- 12.- Fire on ground or in flight will cause the APU MASTER SW pushbutton FAULT light to come on.**
- A.- True.
 - B.- False.
- 13.- With battery power, what would an APU fire test look like?**
- A.- APU FIRE pushbutton illuminated.
 - B.- SQUIB and DISCH lights illuminated.
 - C.- Both are correct.
- 14.- The starter engages if the air intake is closed and the MASTER SW and the START pushbuttons are ON.**
- A.- True.
 - B.- False.

15.- The APU may obtain power for starting from:

- A.- Ground services.
- B.- Normal aircraft supply.
- C.- The aircraft's batteries or in combination with the external power.
- D.- All of the above.

16.- The APU cannot be shut down from outside the aircraft.

- A.- True.
- B.- False.
- C.- APU SHUT OFF pushbutton on External Power Panel.

17.- What are some of the causes for an APU automatic shutdown?

- A.- Fire (on ground only), EGT overtemperature, No acceleration, low oil pressure.
- B.- Fire (on ground only), EGT overtemperature, Underspeed, Overspeed, low oil pressure, high oil pressure.
- C.- Fire (on ground only), EGT overtemperature, Reverse flow, Overspeed, low oil pressure, high oil pressure.
- D.- Fire (on ground only), underspeed, overspeed, EGT overtemperature, Reverse flow, Low oil pressure, DC power loss. i. Fire (on ground only), Underspeed and overspeed, EGT overtemperature, Reverse flow, Low oil pressure, DC power loss, No acceleration, High oil temperature, ECB failure, Slow start, Loss of overspeed protection.

18.- Maximum altitude for APU bleed operation is:

- A.- 15,000 ft.
- B.- 18,000 ft.
- C.- 20,000 ft.
- D.- 22,000 ft.

19.- The APU is supplied from the:

- A.- Left fuel feed line.
- B.- Right fuel feed line.

- 20.- On ground, the No Break Power Transfer function is inhibited in case of APU shutdown generated by which of the following conditions?**
- A.- Automatic APU shut down triggered by the ECB.
 - B.- APU shut down from the REFUEL/DEFUEL panel or from the APU FIRE pushbutton.
 - C.- APU shut down from emergency control provided on the external power panel.
 - D.- All of the above.
- 21.- Can the APU be used with wing anti-ice on?**
- A.- No.
 - B.- Yes, but only for electrical power. The APU bleed valve should not be opened while using wing anti-ice.
 - C.- Yes, except during approach and go-around.
 - D.- Yes, but the altitude of utilization is limited to 15,000 ft.
- 22.- To start the APU the:**
- A.- BAT 1 and 2 push buttons must be selected to ON.
 - B.- BAR 1 and 2 push buttons do not need to be selected ON if external power is available.
 - C.- Both are correct.
- 23.- The Electronic Control Box (ECB) is primarily a full authority digital electronic controller that performs the APU system logic for all modes of APU operation such as:**
- A.- Sequence and monitoring of start.
 - B.- Speed and temperature monitoring.
 - C.- Monitoring of bleed air and shut down.
 - D.- All of the above.
- 24.- When the APU Master Switch is released, a normal APU shutdown occurs:**
- A.- Without delay in all cases.
 - B.- Without a delay, in all cases.
 - C.- With a delay if the bleed air was in use.

- 25.- When selected on, the APU START push button, will:**
- A.- Connect the APU generator to the aircraft electrical system.
 - B.- Start the APU if the APU MASTER SW was previously selected ON.
 - C.- Open the air intake flap and supply fuel pressure.
- 26.- The APU has an integral independent lubrication system for lubrication and cooling.**
- A.- True.
 - B.- False.
- 27.- The ECB (Electronic Control Box) controls the fuel flow.**
- A.- True.
 - B.- False.
- 28.- When the APU MASTER SW is selected ON:**
- A.- The APU computer automatically completes a self-test, opens the air intake flap and supplies fuel pressure.
 - B.- The APU computer automatically starts the APU.
 - C.- Connects the APU generator to the aircraft electrical system.
 - D.- The APU door opens.
- 29.- The APU MASTER SW FAULT light will illuminate:**
- A.- When APU low oil pressure is detected.
 - B.- When an automatic shutdown of the APU occurs.
 - C.- For an APU overheat or APU fire.
 - D.- If the batteries are selected OFF while the APU is operating.

- 30.- The APU may be started up to what altitude?**
- A.- The APU can be started at any altitude using normal aircraft electrical power.
 - B.- The APU can be started up to 35,000 feet using only the aircraft batteries.
 - C.- The APU can be started up to 30,000 feet using only the aircraft batteries.
 - D.- The APU can be started up to 25,000 feet using only the aircraft batteries.
- 31.- You switch off the APU but curiously you still have the APU AVAIL indications.**
- A.- There is a fault with the APU master switch.
 - B.- The APU will run for a cooling period of 60 to 120 seconds because you have been using the APU bleed.
 - C.- You have to push the START SW to initiate the shut down sequence.
- 32.- With the engines off, if the AVAIL light is illuminated on both the APU START push button and the EXT PWR push button, what is the source of electrical power for the aircraft busses?**
- A.- It is not possible to determine without checking the ECAM.
 - B.- The aircraft batteries.
 - C.- The APU.
 - D.- External power.
- 33.- BAT 1 and 2 push buttons do not need to be selected ON if external power is available.**
- A.- It is normally left in the lights out position.
 - B.- When selected OFF, the APU generator is de-energized.
 - C.- Both are correct.
- 34.- What is the maximum altitude at which the APU may be started using the batteries only?**
- A.- 15,000 FT.
 - B.- 20,000 FT.
 - C.- 25,000 FT.
 - D.- 39,000 FT.

- 35.- When the APU is running, the APU fuel pump:**
- A.- Runs when tank pumps pressure is not sufficient.
 - B.- Runs all time.
 - C.- Runs only in flight.
 - D.- Runs when the APU fuel pump is selected on.
- 36.- The APU BLEED valve is automatically closed above ____ feet descending by the ECB.**
- A.- 23,000 feet.
 - B.- 26,000 feet.
 - C.- 28,000 feet.
 - D.- 29,000 feet.
- 37.- With nobody in the cockpit, if you have an APU FIRE, which statement is correct?**
- A.- On the ground, an APU EMER shut down will occur and the APU fire bottle will be discharged automatically.
 - B.- On the ground, you have to perform the ECAM actions to shut down the APU and extinguish the fire from the cockpit.
 - C.- On the ground an APU AUTO shut down will occur but you have to discharge the APU fire bottle manually.
 - D.- In the air, an APU EMER shut down will occur and the APU fire bottle will be discharged automatically.
- 38.- The starter engages if the air intake is closed and the MASTER SW and the START pushbuttons are ON.**
- A.- True.
 - B.- False.

C.- AUTO FLIGHT

- 1.- Both autopilots can be engaged and active in any phase of flight.**
A.- True.
B.- False.

- 2.- If the SPD/MACH knob on the FCU is not pulled within a predetermined time to engage selected speed:**
A.- The selection can be made at any time.
B.- The selection is lost and dashes are re-displayed.
C.- The selection is lost and the display goes blank.

- 3.- When the altitude knob on the FCU is pulled:**
A.- The altitude is armed.
B.- The current altitude is canceled.
C.- Open Climb or descent engages.

- 4.- You can disengage the EXPEDITE mode by:**
A.- Pressing the EXPED switch on the FCU.
B.- Engaging another vertical mode.
C.- Either A or B.

- 5.- Can the autopilot be used for a single engine approach and auto land?**
A.- Yes.
B.- No.

- 6.- What happens if you push the V/S knob?**
A.- Engage the V/S mode.
B.- Command a zero vertical rate (ALT HOLD).
C.- Reverts to Managed Climb.

- 7.- APPR pb. is used to arm/engage the guidance modes related to the approach:**
- A.- Selected on the navigation radios.
 - B.- Inserted into the flight plan (ILS only).
 - C.- Inserted into the flight plan (ILS or non ILS).
- 8.- For autoland, both A/Ps must be connected.**
- A.- True.
 - B.- False.
- 9.- What happens if you press the EXPED pb?**
- A.- Speed is set to 340 knots for climb and green dot for descent.
 - B.- Speed is set to green dot for climb and 340 knots for descent.
 - C.- Decelerated speed approach is selected.
- 10.- When can you select both A/Ps at the same time?**
- A.- After you select both navigation radios on an ILS frequency.
 - B.- Only after the approach mode is armed and an ILS app is inserted into the flight plan.
 - C.- Never.

D.- AUXILIARY POWER UNIT

- 1.- The majority of the APU's system logic is performed by:**
 - A.- A bleed monitoring computer (BMC).
 - B.- An electronic control box (ECB).
 - C.- An APU master control box.

- 2.- If fuel pressure to the APU is too low from the left wing or left center tank boost pumps, pressure will be available.**
 - A.- From the APU fuel pump automatically.
 - B.- From the APU fuel pump when selected "ON".
 - C.- From gravity fed fuel.

- 3.- The APU will enter a cool down cycle of up to two minutes before shutting down:**
 - A.- Everytime the APU is shut down.
 - B.- If APU bleed air is being used.
 - C.- If the APU is shut down using the APU Fire switch.

- 4.- When the APU MASTER SW is selected ON?**
 - A.- The APU computer automatically starts the APU.
 - B.- The APU computer automatically completes a self-test, opens the air intake flap and supplies fuel pressure.
 - C.- Connects the APU generator to the aircraft electrical system.
 - D.- The APU door opens.

- 5.- What is the function of the APU GEN push button located on the overhead electrical panel?**
 - A.- When selected OFF, the APU generator is de-energized.
 - B.- It is normally left in the lights out position.
 - C.- Both A and B are correct.
 - D.- None of the above.

- 6.- The APU is available supply bleed air and/or electrical power at:**
- A.- 80% N:
 - B.- 85% N.
 - C.- 95% N.
- 7.- The APU will automatically shut down and it's fire extinguisher will automatically discharge in the event of an APU fire:**
- A.- In the air.
 - B.- On the ground.
 - C.- A and B are correct.
- 8.- The a APU START push button, when selected ON, will:**
- A.- Connect the APU generator to the aircraft electrical system.
 - B.- Open the air intake flap and supply fuel pressure.
 - C.- Start the APU if the APU MASTER SW was previously selected ON.
 - D.- None of the above.
- 9.- The APU system page will appear on the ECAM:**
- A.- Automatically whenever the APU is started and AC power is available.
 - B.- When selected by the crew.
 - C.- Both A and B are correct.
 - D.- None of the above.
- 10.- The APU may be started up to what altitude?**
- A.- The APU can be started at any altitude using normal aircraft electrical power.
 - B.- The APU can be started up to 35,000 feet using only the aircraft batteries.
 - C.- The APU can be started up to 30,000 feet using only the aircraft batteries.
 - D.- Both A and B are correct.

E.- COMMUNICATIONS

- 1.- The audio management system includes how many audio control panels?**
 - A.- 1
 - B.- 2
 - C.- 3
 - D.- 4

- 2.- One RMP (radio management panel) gives the flight crew control of all radio communication systems and the other RMP provides back up to FMGC's for controlling radio navigation systems.**
 - A.- True.
 - B.- False.

- 3.- The service interphone system provides communication between:**
 - A.- The flight crew and the service interphone jacks.
 - B.- The flight attendant stations and the service interphone jacks.
 - C.- The different service interphone jacks.
 - D.- All of the above.

- 4.- In case of RMP 2 failure, VHF 2 is lost.**
 - A.- True.
 - B.- False.
 - C.- VHF 2 can still be selected on RMP 1 or RMP 3.

- 5.- Which ACP transmission key will illuminated if the flight attendants are calling the cockpit?**
 - A.- PA.
 - B.- CAB.
 - C.- ALERT.
 - D.- VHF3.

- 6.- When looking at either RMP, how is it possible to determine if an RMP is selected to a VHR system it is not dedicated to?**
- A.- The white SEL light will be illuminated on both ARMP's. This is a normal occurrence in-flight.
 - B.- The white SEL light is illuminated on the offside RMP.
 - C.- The white SEL light is illuminated on the onside RMP.
- 7.- If RMP navigation tuning is currently in use for VOR tuning and ATC assigns a new communication frequency, what must be done?**
- A.- The NAV key must be deselected and then press the transfer key.
 - B.- Tune the new frequency on the offside RMP.
 - C.- Select the appropriate VHF communication radio transmission key, tune using the rotary selector, press the transfer key.
- 8.- When the aircraft is in the Emergency Electrical Configuration**
- A.- RMP's 1 and 2, and ACP' 1 and 2 are both operative.
 - B.- RMP 1 and ACP's 1 and 2 are operative.
 - C.- RMP 1 and ACP 1 are operative.
 - D.- RMP 2 and ACP's 1 and 2 are operative.
- 9.- With the AUDIO SWITCHING knob in the CAPT3 position, the Captain uses his acoustic equipment on ACP3.**
- A.- True.
 - B.- False.
 - C.- The captain has to make all the selections on ACP3.
- 10.- The flashing amber MECH light indicates that the interphone system is faulty.**
- A.- True.
 - B.- False.

- 11.- What is the function of the Guarded EMER push button on the overhead panel?**
A.- To alert ATC of an in-flight emergency.
B.- To alert the aft flight attendants of a routine need to speak to them.
C.- To alert all flight attendants of a pending urgent need to speak to them.
- 12.- Normally how should you call a Flight Attendant**
A.- By his or her first name.
B.- Using the ACP CAB pb.
C.- Using an overhead FWD or AFT call pushbutton.
D.- Selecting the ATTND ADV pushbutton on.
- 13.- The BFO key enables the beat frequency oscillator for listening to the ID signal.**
A.- True.
B.- False.
- 14.- How can you get the mechanics attention when he is outside the aircraft?**
A.- Use the MECH pushbutton on the CALLS panel which sounds an external horn.
B.- Press the PA button.
C.- Select the MECH transmission key on the ACP.
- 15.- RMP #1 is dedicated to which VHF radios**
A.- VHF 2 and 3
B.- VHF 1 and 3
C.- All radios.
- 16.- If you depress the guarded NAV button, the MCDU RAD NAV pages are inhibited and the RMP controls navaid tuning**
A.- True.
B.- False.

- 17.- Which ACP switch configuration is correct for communication with other cockpit crew members while wearing your Oxygen Mask?**
A.- ACP INT/RAD switch selected to INT, INT reception knob on, loud speaker volume up.
B.- INT transmission key to on, INT reception knob on, use the sidestick push-to talk when speaking, loud speaker volume up.
C.- Both are correct.
- 18.- The AUDIO SWITCHING rotary selector allows replacement of a failed #1 or #2 ACP with ACP #3**
A.- True.
B.- False.
- 19.- On the ground, CVR is stopped automatically _____ after the last engine shutdown**
A.- Immediately.
B.- 1 minute.
C.- 3 minutes.
D.- 5 minutes.
- 20.- On the ground, the crew can energize the CVR manually by pressing the GND CTL pushbutton.**
A.- True.
B.- False.
- 21.- Only the last 60 minutes of recording are retained by the CVR.**
A.- True.
B.- False.

- 22.- If the VHF 3 transmission key illuminated amber showing the word CALL:**
- A.- An ACARS message is waiting.
 - B.- Indicates a SELCAL.
 - C.- The N°1 flight attendant is calling.
 - D.- ATC is calling.
- 23.- Which statement is correct regarding the cockpit voice recorder?**
- A.- Is automatically energized when the battery pb/s are selected on.
 - B.- Is always active after DC electrical power is applied to the aircraft.
 - C.- Is automatically energized when the parking brake is set.
 - D.- Is automatically energized after the first engine start or five minutes after AC electrical power is applied to the aircraft.
- 24.- The override switch for the service interphone system is located on the _____ and is used for maintenance purposes only.**
- A.- Center pedestal.
 - B.- Overhead Panel.
 - C.- BCB behind the Captain's seat.
 - D.- Glareshield.
- 25.- How do you erase the CVR?**
- A.- Press the CVR ERASE pushbutton when the aircraft is on the ground with the parking brake set.
 - B.- Press the CVR ERASE pushbutton for 2 seconds when the aircraft is on the ground with the parking brake set.
 - C.- Press the CVR ERASE pushbutton and CVR TEST pushbutton for 2 seconds simultaneously.
- 26.- There are two service interphone jacks in the hydraulic compartment.**
- A.- True.
 - B.- False.

- 27.- When RMP1 (Radio Management Panel) or RMP2 is OFF, RMP3 is still able to control VHF/HF transceivers through them.**
A.- True.
B.- False.
- 28.- To make a PA announcement:**
A.- Depress and hold the PA transmission key push button.
B.- Use the pedestal mounted headset.
C.- Both are correct.
- 29.- The service interphone has _____ interphone jacks and an OVRD switch located on the overhead panel.**
A.- Five.
B.- Seven.
C.- Eight.
D.- Ten.
- 30.- When selecting the guarded RMP NAV key:**
A.- Manual tuning via the MCDU RAD NAV page is still possible.
B.- Manual tuning via the MCDU RAD NAV page is always possible.
C.- FMGC auto tuning is inhibited.
D.- Manual tuning via the MCDU RAD NAV page is only possible on the offside radio.
- 31.- The AM pushbutton switch, on the radio management panel, is only operative when:**
A.- A VHF transceiver has been selected.
B.- An HF transceiver has been selected.

32.- Where are the HF antennas located?

- A.- Forward top fuselage.
- B.- Left wing tip.
- C.- Under the fuselage.
- D.- Leading edge of the rudder.

33.- If RADIO is selected on the side stick when the INT/RAD switch is on INT, the radio function has priority over the interphone function.

- A.- True.
- B.- False.

34.- You can tune the ILS receivers to different channels

- A.- Yes.
- B.- No.
- C.- This protects the auto land mode if the #1 autopilot fails and the #2 system assumes control.

F.- DOORS AND EQUIPMENT

- 1.- The PBE provides a breathable atmosphere for approximately _____ minutes.**
 - A.- 10
 - B.- 15
 - C.- 16
 - D.- 18

- 2.- What happens to the cockpit door with electrical power failure?**
 - A.- It operates normally on HOT BAT bus.
 - B.- It automatically unlocks.
 - C.- It automatically locks from outside but stays unlock from inside.

- 3.- When the electric pump is operating the FWD or AFT cargo doors, the only other yellow system devices that can operate are braking and engine 2 reverse.**
 - A.- True.
 - B.- False.

- 4.- The cargo doors are powered by:**
 - A.- The blue electric pump.
 - B.- The yellow hydraulic system before engine start and the green hydraulic system after engine start.
 - C.- The yellow hydraulic system.
 - D.- The blue hydraulic system before engine start and the green hydraulic system after engine start.

- 5.- The forward and aft cargo doors can be opened from:**
 - A.- The inside and the outside.
 - B.- The outside only.

- 6.- If door handle is lifted and the white indicator illuminates, what does this mean?**
- A.- The escape slide is armed and if you go on lifting the handle, door opens and slide will deploy.
 - B.- Pneumatic assistance of the door has failed.
 - C.- The escape slide is in disarmed configuration.
 - D.- The cabin is still pressurized.
- 7.- On the cockpit overhead panel there is a three position EMERGENCY EXIT LT switch. What lights are associated with this switch?**
- A.- Exit signs, emergency lights, and floor path lights.
 - B.- Exit signs, emergency lights, main panel flood lights, and floor path lights.
 - C.- Exit signs, emergency lights, dome lights, main panel flood lights, and the standby compass light.
 - D.- Exit signs, and the standby compass light.
- 8.- What is Crew Oxygen minimum pressure, where can it be read?**
- A.- 850 PSI, ECAM DOOR/OXY page.
 - B.- 950 PSI, gauge on the bottle.
 - C.- 1000 PSI, gauge on the bottle.
 - D.- 1500 PSI , ECAM DOOR/OXY page.
- 9.- There is no other way of deploying the overwing escape slide if it fails to deploy automatically on opening the emergency exit.**
- A.- True.
 - B.- False.
- 10.- What does illumination of the red cabin pressure light represent on the main cabin door?**
- A.- This indicates that the evacuation slide is armed.
 - B.- This indicates that the aircraft cabin is still pressurized and the cabin door should not be opened.
 - C.- Both are correct.

- 11.- You want to open the cabin door, while lifting the control handle the white light illuminates. What does it mean?**
- A.- There is residual pressure in the cabin.
 - B.- The ramp is not correctly positioned.
 - C.- The slide is still armed.
 - D.- Somebody is trying to open the door from outside.
- 12.- Which situation will automatically illuminate the escape path lighting?**
- A.- The loss of power to the DC ESS SHED bus and the loss of power to the AC bus #1.
 - B.- The loss of power to the AC ESS SHED bus and the loss of power to the AC bus #1.
 - C.- The loss of power to the AC ESS SHED and the loss of power to the DC ESS SHED.
 - D.- The loss of power to the AC ESS SHED.
- 13.- When the door arming lever is in the ARMED position, opening the door from the outside will:**
- A.- Automatically deploy and inflate the evacuation slide.
 - B.- Disarm the door.
 - C.- The power assist will rapidly open the door.
- 14.- With the EMER EXIT LT selector in the ARM position. If AC bus #1 is unpowered:**
- A.- The escape path markings will automatically illuminate.
 - B.- The emergency lights and exit signs will illuminate automatically.
 - C.- Both are correct.
- 15.- Opening an emergency overwing exit will:**
- A.- Inflate the slide at the leading edge of the wing.
 - B.- Automatically inflate the double lane slide off the trailing edge of the wing.
 - C.- Only arm the overwing slide.

- 16.- What are the indications that the PBE oxygen supply has depleted?**
- A.- The hood collapses to the point that it touches your face or by a flashing red light in addition to the flashing green light.
 - B.- The sound of the oxygen flow stops and flashing red and green lights appear.
 - C.- No O2 supply indications & lights only indicate time.
 - D.- all of the above.
- 17.- How many cabin entrance, overwing emergency exits and cargo doors are on the A-320?**
- A.- Four cabin, two overwings, and two cargo, plus the bulk cargo.
 - B.- Four cabin, four overwings, and two cargo, plus the bulk cargo.
 - C.- Two cabin, four overwings, and three cargo, plus the bulk cargo.
- 18.- The SLIDE ARMED LIGHT illuminates white on the passenger cabin entry doors when:**
- A.- The door is not armed.
 - B.- The door is armed.
 - C.- The control handle is operated with the slide armed.
- 19.- The ECAM will display a door not locked in:**
- A.- Amber.
 - B.- Red.
 - C.- Green.
- 20.- The A-320 cargo doors can be operated by either an ____ or a ____ to pressurize the ____ hydraulic system.**
- A.- Electric pump, hand pump, green.
 - B.- Mechanical pump, hand pump, yellow.
 - C.- Electric pump, hand pump, yellow.

21.- How is it determined that the cockpit sliding window is closed and locked?

- A.- The red ring below the release button should not be in view.
- B.- The red ring below the release button should be in view.
- C.- The locking pin was placed in the forward position when the window was closed.
- D.- The pin is engaged.

22.- How is crew oxygen provide?

- A.- From a single bottle.
- B.- There is one bottle per crew member except for jump seats.
- C.- Oxygen generator.
- D.- One oxygen bottle with an oxygen generator.

23.- What cockpit lighting is available during an Emergency Electrical Configuration (EEC)?

- A.- All lights are fully functional.
- B.- Dome lights, main panel flood lights, and the standby compass light.
- C.- Dome light (right side only), main panel flood lights, and the standby compass light.
- D.- Dome light (right side only), main panel flood lights (left two columns only), and the standby compass light.

24.- What does HORN SHUTOFF on the EVAC panel do?

- A.- Cancels the EVAC alert.
- B.- Silences EVAC signals throughout the cabin and cockpit.
- C.- Silences Horn in cockpit.
- D.- None of the above.

25.- The HALON fire extinguisher should be used on what type fires?

- A.- Electrical fires only.
- B.- Electrical and burning metals.
- C.- Electrical and flammable liquid fires.
- D.- Electrical and ordinary combustibles.

- 26.- On the ECAM DOOR/OXY page, the SLIDE indication appears ____ when the slide is not disarmed.**
- A.- White.
 - B.- Amber.
 - C.- Green.
 - D.- Red.
- 27.- Each passenger door has one CABIN PRESSURE warning light that:**
- A.- Warns of residual pressure in the cabin.
 - B.- Shows a possible unlocked door.
 - C.- Both are correct.
- 28.- Where does the Door and Slide Control System (DSCS) generate warnings?**
- A.- On ECAM.
 - B.- On the doors.
 - C.- Both are correct.
- 29.- What does illumination of the white slide armed light represent on the main cabin door?**
- A.- This indicates that the slide has properly inflated and is safe for use.
 - B.- This indicates that the slide is armed and the slide will inflate if the door is opened from inside the aircraft.
 - C.- This indicates that the main cabin door has not been properly closed.
 - D.- This indicates that the main cabin door has not been properly closed but the slide is properly armed.
- 30.- Can the flight compartment sliding windows be used as emergency exits?**
- A.- Yes, in the cockpit coat closet is a rope ladder that can be used in such an event.
 - B.- Yes, there are escape ropes mounted above each window behind an access panel.
 - C.- No. They are not approved emergency exits.
 - D.- No, they are too small.

- 31.- When the slide arming lever, on the emergency opening system, is in the ARMED position, where is the slide connected?**
- A.- To the brackets on the underside of the fuselage.
 - B.- To the brackets on the above the door.
 - C.- To the floor brackets on both sides of the door.
 - D.- All of the above.
- 32.- When the Cargo door switch for the yellow hydraulic pump is in use, the flight controls are:**
- A.- Fully operational.
 - B.- Inhibited.
 - C.- Hydraulically locked by pressure from the electric pump.
 - D.- Only operated by the green system.
- 33.- The cockpit door:**
- A.- Can only be open into the cockpit.
 - B.- Can only open into the cabin.
 - C.- Normally opens into the cockpit but can be forced in either direction.
 - D.- Slides in either direction.
- 34.- When opened in an emergency, the passenger entry doors:**
- A.- They are Pneumatically assisted into the open position.
 - B.- Will need two cabin crew to push them open.
 - C.- Are assisted to the open position by slide inflation.
 - D.- Are electrically assisted into the open position.
- 35.- The cockpit windows can be opened both from inside and outside.**
- A.- True.
 - B.- False.
 - C.- From inside only.

G.- ELECTRICAL SYSTEM

- 1.- **If the battery voltages are below the minimum, how do you charge them?**
A.- You have to call a mechanic because the batteries can only be charged by maintenance.
B.- I have to check that the BAT pushbuttons are on and switch the external power on.

- 2.- **In cruise, you have suddenly a Master Warning and caution comes on with ELEC EMER CONFIG and APP OFF. You notice a red FAULT light on the RAT & EMER GEN pushbutton. What do you think of this indication?**
A.- The EMER GEN is not yet supplying the system.
B.- The RAT has failed. You will have to turn the batteries to OFF.
C.- The FAULT light is always on when are in SLEC EMER CONFIG.
D.- The RAT has failed. you have to try to reconnect both IDC/s.

- 3.- **When are the Essential Shed buses powered by his battery?**
A.- Never. The purpose of the shed buses is to reduce the load on the batteries.
B.- In case of double generator failure.
C.- After every IDG connection.

- 4.- **The AC Essential bus is powered by the battery at speed above 50 kt.**
A.- True.
B.- False.

- 5.- **While operating on Emergency Electrical Power (EMER GEN powering the system) what should the crew accomplish prior to lowering the landing gear?**
A.- Check to see that the FMGC has auto tuned the appropriate NAV facility for the approach to be accomplished.
B.- Depress the guarded RMP NAV push button and tune the appropriate NAV facility and course for the approach to be accomplished.
C.- Both are correct.

- 6.- **While operating on Emergency Electrical Power (EMIR GEN powering the system) how is it possible to properly complete the ECAM checklist with only an upper display?**
- A.- Depress and hold the specific ECAM page push button on the ECAM control panel.
 - B.- Transfer occurs automatically.
 - C.- This is not possible. Use the cockpit operating manual
- 7.- **The GALLEY FAULT light illuminates when any generator is exceeding 80% of its rated output.**
- A.- True.
 - B.- False.
- 8.- **What is the meaning of the green AVAIL light?**
- A.- External power is plugged in and parameters are normal. You must push the external power to connect it.
 - B.- External power is available to the batteries only.
 - C.- The external power panel door has been opened.
 - D.- External power is supplying the aircraft systems.
- 9.- **After IDG disconnection why do you get a GALLEY SHED indication on the SD?**
- A.- It is a reminder to push the GALLEY pushbutton to manually shed the main galley.
 - B.- It is a reminder to get the flight attendants to switch off galley equipment to decrease the load on the remaining generator.
 - C.- If it is a reminder that the main galley has been shed automatically following the loss of one generator.

- 10.- Which busses will be powered after the RAT is extended and the EMER GEN begins producing power?**
- A.- BATT HOT busses, ESS DC, ESS DC SHED, ESS AC and 3SS AC SHED.
 - B.- The STATIC INVERTER would power both HOT The STATIC INVERTER would power both HOT BATT busses, ESS DC and ESS AC through the ESS AC SHED busses.
 - C.- The BATTERIES would power both HOT BATT busses, ESS DC and ESS AC through the STATIC INVERTER.
 - D.- ESS DC, ESS DC SHED, ESS AC and ESS AC SXED.
- 11.- What does the blue EXT PWR ON light mean?**
- A.- External power is plugged in and parameters are normal.
 - B.- External power is supplying the aircraft s electrical system.
 - C.- There is a fault with the external power.
- 12.- If EXTERNAL POWER is available and within limits:**
- A.- It will automatically close the bus tie contactors when connected by the ground crew.
 - B.- The green AVAIL light will illuminate on the EXT PWR push button.
 - C.- The BUS TIE push button illuminates.
- 13.- Both batteries are charged by the external power unit. Approximately how long does the charging process take?**
- A.- 10 minutes.
 - B.- 20 minutes.
 - C.- 30 minutes.
 - D.- between 30 & 45 minutes.
- 14.- While operating on Emergency Electrical Power (EMER GEN powering the system, FAC #1 reset) which of the following control laws are in effect?**
- A.- Manual
 - B.- Alternate.
 - C.- Backup
 - D.- Manual and backup.

- 15.- On the cockpit overhead panel, there is a three positions EMERGENCY EXIT LIGHT SWITCH. What lights are associated with this switch.**
- A.- Exit signs, emergency lights, and escape path lighting.
 - B.- Exit signs, emergency lights, main panel flood lights, and escape path lighting.
 - C.- Exit signs, emergency lights, dome lights, main panel flood lights, and the standby compass lights.
- 16.- Which radios are inoperative with gear extension while in the emergency electrical configuration?**
- A.- DME 1 and transponder 1.
 - B.- DME 1, DDRM1, and transponder 1.
 - C.- DME, and transponder.
 - D.- ILS 2 DME, and ADF.
- 17.- If during a normal flight the BUS TIE push button is depressed to OFF, what effect would this have on power to the busses?**
- A.- None.
 - B.- All power would be lost and the aircraft would be powered by the batteries until the RAT was up to speed.
 - C.- The power transfer would switch to the opposite bus.
 - D.- This is not possible as the bus tie contactors are locked out during flight.
- 18.- Which communication and navigation radios are operational in the Emergency Electrical Configuration with the EMER GEN powering the system?**
- A.- ACP 1 and 2, VHF 1, HF, RMP 1, VOR 1, and ILS 1.
 - B.- VHF 1, RMP 1, VOR 1.
 - C.- RMP #1 & #2, VHF #1, HF (if equipped), ACP #1, VOR#1 and ILS #1.
 - D.- All radios are lost.

- 19.- While operating on Emergency Electrical Power with the landing gear lowered which of the following statements is correct?**
- A.- If the APU is not operating it should be started at this time.
 - B.- The APU will not start until the aircraft has come to a complete stop and all power has been removed for 15 seconds.
 - C.- On the ground at 100 knots, the DC BATTERY BUS automatically reconnects to the batteries allowing APU start.
 - D.- At 70 Knots ESS AC is disconnected from the batteries.
- 20.- Which flight control computers are operational in the emergency electrical power configuration (gear down and batteries powering the system)?**
- A.- All are operational
 - B.- ELAC 1, SEC 1 and FAC 1
 - C.- ELAC 1 and 2, SEC 1 and 2 FAC 1
 - D.- ELAC 1 and SEC 1
- 21.- During the five seconds it takes for the RAT to extend:**
- A.- the BATTERIES power both BATT HOT busses, 3SS DC SHED, and ESS AC SHED through the STATIC INVERTER.
 - B.- The BATTERIES power both BATT HOT busses, ESS DC, and ESS AC through the STATIC INVERTER.
 - C.- The STATIC INVERTER powers both BATT HOT busses, ESS DC, and ESS AC through the ESS AC SHED busses.
 - D.- The BATTERIES power both BATT HOT busses.
- 22.- The purpose of the AUTO BUS TIE is to allow either engine-driven IDG to automatically power both main AC buses in the event of a generator loss until either ground power or the APU generator is activated.**
- A.- True
 - B.- False

23.- How many times can you reset a circuit breaker?

- A.- Once.
- B.- Once, if authorized by the procedures.
- C.- Twice.
- D.- Twice, if authorized by the procedures.

24.- When does the RAT automatically deploy?

- A.- With the loss of two hydraulic systems
- B.- . Ilcstrical power to both AC BUS #1 & #2 is lost and the aircraft speed is above 100 knots.
- C.- Both are correct.

25.- What is the significance of the circuit breakers on the overhead panel?

- A.- They are not monitored by ECAM.
- B.- Cannot be reset.
- C.- They may be operational in the Emergency Electrical Configuration

26.- If both engine generators are powering the system, and one subsequently fails are any busses unpowered?

- A.- Only the AC ESS shed bus
- B.- No, but some loads are shed in both main galleys
- C.- Yes, those associated with the failed generator

27.- What is the function of the GEN 1 LINE push button?

- A.- When selected OFF the avionics compartment isolation valves close.
- B.- When selected OFF the #1 generator powers all AC buses.
- C.- When selected OFF generator #1 is removed from all busses but continues to power one fuel pump in each wing.

28.- During a routine flight, which of the following would result after the loss of Gen #2 and the subsequent start of the APU?

- A.- The APU would now power both sides of the electrical system.
- B.- All systems return to normal and the RAT must be restored.
- C.- Eng gen #1 continues to power AC bus #1 and downstream systems. The APU powers AC bus #2 and downstream systems.

29.- Is it possible to parallel generators?

- A.- Of course yes.
- B.- Only with the RAT deployed.
- C.- The electrical system will not allow "paralleling" of generators.
- D.- Only one engine generator may be paralleled with the APU.

30.- While operating on Emergency Electrical Power with the landing gear lowered which of the following control laws is in effect?

- A.- Backup
- B.- Direct
- C.- Alternate
- D.- Backup or alternate

31.- A battery fault light will illuminate when:

- A.- The batteries have auto disconnected due to low voltage
- B.- Battery voltage drops below a predetermined level.
- C.- Battery charging current increases at an abnormal rate.

32.- What is the function of APU GEN push button located on the overhead electrical panel?

- A.- Push this button to automatically start the APU
- B.- When selected to OFF the APU generator field is de-energized.
- C.- Both are correct.

- 33.- After landing, in the emergency electrical configuration: the batteries automatically connect to the DC BAT bus when speed decreases below _____ knots.**
- A.- 50
 - B.- 70
 - C.- 90
 - D.- 100
- 34.- If normal electrical power is lost; essential cockpit lighting is maintained for the:**
- A.- Captain's instrument panel.
 - B.- Standby compass.
 - C.- Right dome light (provided the dome selector is not off).
 - D.- All of the above.
- 35.- You enter a dark cockpit, what action is necessary before checking the battery voltages?**
- A.- You have to check that the external power is on.
 - B.- You have to ensure that at least one battery is on.
 - C.- You have to ensure that both batteries are on.
 - D.- You have to verify that both batteries are off.
- 36.- Which flight control computer will be inoperative with gear extension while in the Emergency electrical Configuration?**
- A.- FAC 1 and ELAC 1
 - B.- SEC 1
 - C.- SEC 1 and ELAC 1
 - D.- FAC 1

- 37.- Are there any limitations associated with disconnecting an IDG?**
- A.- Never disconnect an IDG in flight, or push the IDG disconnect push button for more then 30 seconds.
 - B.- There is no limitations.
 - C.- Never disconnect an IDG in flight, or push the IDG disconnect push button for more then 5 seconds.
 - D.- Never disconnect an IDG unless the engine is running nor push the IDG disconnect push button for more then 3 seconds.
- 38.- If batteries are the only source of power in flight, how long will battery power be available?**
- A.- Between 22 and 30 minutes depending on equipment in use
 - B.- Until the APU is started
 - C.- Two hours and 30 minutes dependent on equipment in use.
 - D.- 45 minutes dependent on equipment in use
- 39.- If the battery voltages are below the minimum, how do you charge them?**
- A.- You have to call a mechanic because the batteries can only be charged by maintenance.
 - B.- I have to check that the BAT pushbuttons are on and switch the external power on.
- 40.- Which flight control computers are operational in the emergency electrical power configuration (gear down and batteries powering the system)?**
- A.- All are operational.
 - B.- ELAC 1, SEC 1 and FAC 1.
 - C.- ELAC 1 and 2, SEC 1 and 2 FAC 1.
 - D.- ELAC 1 and SEC 1.

- 41.- An ACC ESSFEED switch located on the overhead panel shifts the power source for the AC ESS bus from:**
- A.- AC bus 1 to AC bus 2
 - B.- AC bus 1 to AC Grnd/Fit bus
 - C.- AC bus 2 to AC bus 1
- 42.- The number 1 AC bus channel normally supplies power to _____, and to the _____ bus.**
- A.- TR1, DC 1
 - B.- TR1, AC ESS.
 - C.- None of above.
- 43.- The normal priority for supplying electrical power to the AC busses is:**
- A.- External power, engine generators, APU.
 - B.- APU, external power, engine generators.
 - C.- Engine generators, external power, APU.
- 44.- The A-320 has _____ batteries in its main electrical system.**
- A.- 1
 - B.- 2
 - C.- 3
- 45.- What is the priority of electrical sources?**
- A.- External power, Gen #1 and #2, APU.
 - B.- APU, External power (if selected), Gen #1 and #2.
 - C.- APU, Gen #2 or #2 or #1, External power (if selected).
 - D.- Gen #1 or #2, External power (if selected), APU.
- 46.- Which of the following AC busses the emergency generator can power?**
- A.- AC bus 1.
 - B.- AC bus 2.
 - C.- AC ESS bus.

- 47.- The RAT is connected directly (mechanically) to the Emergency Generator.**
A.- True.
B.- False.
- 48.- The engine generators and APU generator are rated at _____ KVA.**
A.- 50
B.- 90
C.- 45
- 49.- The DC BAT BUS is normally powered by:**
A.- The A-320 has _____ batteries in its main electrical system.
B.- DC BUS 2.
C.- Batteries.
D.- DC BUS 1
- 50.- For the A-320 the emergency generator supplies power as long as RAT is deployed and:**
A.- The landing gear is down.
B.- If the RAT stalls or if the aircraft is on the ground with the speed below 100 kts.
C.- The landing gear is up.
- 51.- If EXTERNAL power is available and within limits:**
A.- It will automatically close the bus tie contactors when connected by the ground crew.
B.- The green AVAIL light will illuminate on the EXT PWR push button.
C.- The BUS TIE push button illuminates.
D.- None of the above.

- 52.- If both engine generators are powering the system, and one subsequently fails. are any busses unpowered?**
- A.- Only the AC ESS shed bus.
 - B.- No, but some loads are shed in both main galleys.
 - C.- Yes, those associated with the failed generator.
- 53.- Do not depress the IDG DISCONNECT switch for more than _____ to prevent damage to the disconnect mechanism.**
- A.- 3 seconds.
 - B.- 10 seconds.
 - C.- 15 seconds.
- 54.- The IDG Fault light indicates:**
- A.- An IDG oil overheats.
 - B.- IDG low oil pressure.
 - C.- IDG has been disconnected.
 - D.- Either A or B.
- 55.- Is it possible to determine the source of power for aircraft busses?**
- A.- It is indicated on the electrical schematic overhead.
 - B.- No.
 - C.- Only when operating in the Emergency Electrical Configuration.
 - D.- Yes, press the ECAM ELEC push button and view the electrical shematic on the ECAM.
- 56.- Can you reconnect an IDG in flight?**
- A.- Yes, but only after contacting maintenance control.
 - B.- Yes, push and hold the IDG pb until the GEN fault light is no longer illuminated.
 - C.- No.
 - D.- None of the above.

- 57.- If batteries are the only source of power in flight, how long will battery power be available?**
A.- Between 22 and 30 minutes depending on equipment in use.
B.- Until the APU is started.
C.- Two hours and 30 minutes dependent on equipment in use.
D.- 45 minutes dependent on equipment in use.
- 58.- What is the significance of the circuit breakers on the overhead panel?**
A.- They are not monitored by ECAM.
B.- Cannot be reset.
C.- They may be operational in the Emergency Electrical Configuration.
- 59.- When does the RAT automatically deploy?**
A.- With the loss of two hydraulic systems.
B.- Electrical power to both AC BUS #1 & #2 is lost and the aircraft speed is above 100 knots.
C.- Both are correct.
- 60.- The number 1 AC bus channel normally supplies power to ____ and to the ____ bus**
A.- TR2/AC ESS SHED/DC ESS SHED.
B.- TR1/AC ESS SHED / DC ESS.
C.- TR1/AC ESS / AC ESS SHED.
D.- TR1 /AC ESS / DC ESS SHED.
- 61.- When no other power is available in flight, the static inverter converts power to AC power for the ____ bus, and ____ powers the ____ bus.**
A.- BAT1 DC /AC ESS bus /BAT2 /DC ESS.
B.- BAT1 DC / AC ESS SHED /BAT2 /DC ESS SHED.
C.- BAT1 DC / AC ESS bus /BAT2 /DC ESS SHED.

- 62.- An AC ESS FEED switch located on the overhead panel shifts the power source for the AC ESS bus from:**
- A.- AC bus 1 to AC bus 2.
 - B.- AC bus 1 to AC Grnd/Fit bus.
 - C.- AC bus 2 to AC bus 1.
- 63.- Which of the following AC busses can be powered by the emergency generator?**
- A.- AC bus 1.
 - B.- AC bus 2.
 - C.- AC ESS bus / AC ESS SHED bus.
- 64.- The BAT FAULT light will illuminate when:**
- A.- Battery voltage is low.
 - B.- Charging current increases at an abnormal rate.
 - C.- Charging current decreases at an abnormal rate.
- 65.- Having starting the APU, how can you get the APU generator to power the electrical system?**
- A.- The APU generator must be switch on.
 - B.- By pushing the EXT PWR pushbutton thus disconnecting the external power.
 - C.- By pushing the BUS TIE pushbutton
 - D.- you are unable to as the APU power output is outside normal parameters.
- 66.- The BATTERY BUS is normally powered by:**
- A.- DC BUS 2
 - B.- DC BUS 1 and DC BUS 2
 - C.- DC bus 1 through a DC the control relay.
 - D.- DC bus 2 through a DC the control relay.

- 67.- Which voltage requires recharging or replacing the batteries?**
- A.- 20 volts.
 - B.- 24 volts or less.
 - C.- 25 volts or less.
 - D.- 26 volts or less.
- 68.- What is the minimum voltage when consulting a BATTERY CHECK?**
- A.- 28 volts.
 - B.- Less than 60 amps in 10 seconds.
 - C.- Greater than 25 volts.
- 69.- A battery fault light will illuminate when:**
- A.- The batteries have auto disconnected due to low voltage.
 - B.- Battery voltage drops below a predetermined level.
 - C.- Battery charging current increases at an abnormal rate.
- 70.- What cockpit lighting is available during an emergency electrical situation?**
- A.- Emergency path lighting only.
 - B.- Right side Dome light, main panel flood lights (left two columns only), and the standby compass light.
 - C.- Located on normal circuit breaker panels.
 - D.- Right side dome light, main panel flood lights, and the standby compass light.
- 71.- When will the RAT & EMER GEN red FAULT light momentary illuminates?**
- A.- When the EMER GEN is not supplying electrical power, AC busses #1 & #2 are unpowered and the nose gear is up.
 - B.- When the RAT is deployed using hydraulic RAT MAN ON push button.
 - C.- Both are correct.

- 72.- While operating on Emergency Electrical Power with the landing gear lowered which of the following control laws is in effect?**
- A.- Backup.
 - B.- Direct.
 - C.- Alternate.
 - D.- Manual and backup.
- 73.- What would cause the GALLEY fault light to illuminate?**
- A.- The flight attendants have all the coffee makers and ovens on at once.
 - B.- The Main Galley has shed.
 - C.- The load on any generator is above 100% of its rated output.
 - D.- The Aft Galley has shed.
- 74.- If the source of power for the ESS AC bus is lost, does another source of power automatically power the bus?**
- A.- Yes, transfer is automatic.
 - B.- Yes, only if AUTO was selected on the AC ESS FEED push button.
 - C.- No, this must be done by the crew.
- 75.- Engine #1 has just been started and the APU is inoperative. The EXT PWR push button blue ON light is illuminated. Which of the statements below is correct?**
- A.- External power is supplying all electrical needs.
 - B.- Engine Gen #1 is supplying AC bus #1 and the downstream systems, and AC bus #2 through the bus tie contactors.
 - C.- Gen #1 supplies AC bus #1 and (generally) the downstream systems; Ext power supplies AC bus #2 .

H.- ENGINES

- 1.- A few seconds after selecting reverse, the amber REV indication changes to green. What does this mean?**
 - A.- The reversers have been re-stowed.
 - B.- The reversers are now fully deployed.
 - C.- The reverse thrust selection has been acknowledged.
 - D.- The reversers are unlocked.

- 2.- During engine start the amber FAULT light on the ENG MASTER panel illuminates. This indicates:**
 - A.- A failure in the automatic start sequence.
 - B.- A failure of the ENG MODE SELECTOR.
 - C.- A failure in the engine fire extinguishing system.

- 3.- Which steps of a manual start are being taken care of by the FADEC?**
 - A.- Starter valve closure and ignition cut off.
 - B.- Starter valve opening and ignition start.
 - C.- Starter valve closure and ignition start.
 - D.- Starter valve opening and ignition cut off.

- 4.- Can Alpha-floor be disengaged while in Alpha Protection?**
 - A.- Yes, by manually disengaging the auto throttles.
 - B.- No, the system is designed to avoid such a disengagement.
 - C.- Yes, by reducing at idle one of the throttles (for more than 5 seconds).

- 5.- Is it possible to disconnect Alpha floor?**
 - A.- No, Alpha floor protection is always available.
 - B.- Yes, by placing the thrust levers to IDLE.
 - C.- Yes, by depressing the autothrottle push button on the FCU.

- 6.- **The FADEC will automatically abort an abnormal start thereby providing engine limit protection, but will the FADEC also automatically dry crank the engine?**
A.- No, that is why there is a CRANK selection on the ENG MODE selector.
B.- Yes, even if the crew interrupts the start by placing the ENG MASTER switch to OFF.
C.- Yes, as long as the ENG MASTER switch remains in the ON position.
- 7.- **What would happen in flight if the FADEC's alternator failed?**
A.- Automatic control of the engine would be lost.
B.- The standby channel of the ECU would take over.
C.- The FADEC would now be powered using ship's power.
D.- The FADEC would now be powered using ship's battery power.
- 8.- **You are in the middle of a manual engine start. What are you looking for when you select ENG MASTER 2 ON?**
A.- The fuel used is reset, fuel flow is indicated and IGNITION message on the E/IVD.
B.- The fuel flow is reset, an igniter is powered and fuel used is indicated.
C.- The fuel used is reset, both igniters are powered and fuel flow is indicated.
D.- The fuel used is reset, both igniters are powered and N2 is increasing.
- 9.- **Each FADEC is a dual channel (A&B) computer providing full engine management.**
A.- True.
B.- False.
- 10.- **In addition to when the engine is operating, when else will the FADEC be powered?**
A.- When the FADEC GND PWR pb on the maintenance panel is depressed, or the ENG MASTER switch is placed to ON.
B.- When the FADEC control switch is placed to the IGN/START position.
C.- For five minutes after electrical power is applied to the aircraft, when the FADEC GND PWR pb on the maintenance panel is depressed, or when the ENG MODE control switch is placed to IGN/START position.
D.- As long as electrical power is established on the aircraft, the FADEC is powered.

11.- During an automatic start, the FADEC controls:

- A.- The start valves, igniters and fuel flow.
- B.- The start valves, igniters, HP and LP fuel valves.
- C.- The igniters and fuel flow.
- D.- The start valves, igniters, HP and LP fuel valves, and fuel flow.

12.- How is manualarming of the A/THR system accomplished?

- A.- By pressing the A/THR pb on the FCU confirm the pushbutton illuminates green or confirm an A/THR annunciation is displayed in column 5 of the FMA.
- B.- By placing the thrust levers into the active range.
- C.- Advance at least one thrust lever to the TOGA or LX/I CT detent with at least one Flight Director (FD) on.

13.- You are at the start of a descent and a blue N I arc is displayed showing the new thrust demand. When does this happen?

- A.- Whenever the thrust levers are moved out of the CLIMB position.
- B.- Whenever there is a power change in manual thrust.
- C.- Whenever there is a power change with the autopilot engaged.
- D.- Whenever there is power change with auto thrust engaged.

14.- If a thrust lever is set between two detents, the FADEC selects the rating limit corresponding to the higher limit.

- A.- True. This limit is displayed on the uppr ECAM.
- B.- False. For safety reasons, it always selects the rating limit corresponding to the lower limit.

15.- What would happen during the takeoff roll if the thrust levers were set to the FLXA4CT detent without FLEX temperature being entered?

- A.- Nothing, the thrust setting would be at FLEX since FADEC automatically calculates a reduced thrust setting.
- B.- The thrust setting would be MCT and there would be no corresponding warnings.
- C.- A LEVEL TWO warning would sound along with the appearance of an ECAM message.

- 16.- What abnormalities would cause the FADEC to automatically abort a start?**
- A.- A hot start, an overtemp, a stalled start or no lightoff.
 - B.- An engine overspeed.
 - C.- A hot start, a stalled start, an overtemp or APU underspeed.
 - D.- A hot start, an overtemp or an engine overspeed.
- 17.- During an in-flight start or a manual start, will the FADEC auto abort for an abnormal?**
- A.- Yes. It will for an in-flight start (but not for a manual start).
 - B.- Yes.
 - C.- No.
- 18.- For reverser actuation, the left engine uses _ hydraulic system pressure and the right engine uses - hydraulic system pressure.**
- A.- Green - Yellow.
 - B.- Yellow - Blue.
 - C.- Yellow - Green.
 - D.- Blue - Green.
- 19.- While flying the airplane with A/THR active, the speed knob is pulled and turned to a selected speed that happens to be slower than Alpha prot. What speed will the airplane slow to?**
- A.- Vls.
 - B.- Green Dot + 5 kts.
 - C.- Green dot.
 - D.- Green dot + 10 kts.
- 20.- Where is the thrust reduction altitude found and is the number always the same?**
- A.- Column four, row three of the FMA. It will always be 1500 ft. AGL.
 - B.- TAKE OFF PERF page of the MCDU (it can be modified).
 - C.- PROG page of the MCDU. It can be modified in order to meet constraints.
 - D.- TAKE OFF PERF page of the MCDU. It cannot be modified.

21.- During a manual start, what function does the FADEC perform?

- A.- Passive monitoring of the start sequence, to close the start valve and cut off the ignition on the ground.
- B.- To control the start sequence and take corrective action in case of a failure or malfunction.
- C.- The FADEC does not perform any function during a manual start and all actions have to be carried out by the pilots.

22.- During normal operation, in what detent are the thrust levers positioned once the thrust reduction altitude has been reached?

- A.- CL.
- B.- MCT.
- C.- FLX.
- D.- CRZ.

23.- After take off the A/THR will not become active until:

- A.- The thrust levers are placed in the CLIMB position.
- B.- The thrust levers are moved out of the TO/GA or FLE)IMCT detents.
- C.- The autopilot is engaged.
- D.- The A/THR pushbutton is manually selected ON.

24.- Continuous ignition is provided automatically when:

- A.- ENG ANTI ICE is selected ON and/or engine flameout is detected in flight.
- B.- ENG ANTI ICE is selected ON.
- C.- ENG ANTI ICE is selected ON and/or engine flameout is detected in flight and/or the EIU fails.

25.- How can A/THR be ARMED automatically?

- A.- Whenever a takeoff or go-around is initiated with at least one flight director ON.
- B.- When Alpha floor protection is activated.
- C.- Both are correct.

26.- During a manual start, how is the start valve opened?

- A.- It is automatic once the ENG MASTER is placed to the ON position.
- B.- By depressing the ENG MAN START pushbutton's on the overhead panel.
- C.- By depressing the ENG MAN START pushbutton's on the overhead panel while the ENG MODE selector is out of the NORM position.

27.- When does oil quantity indication begin to pulse?

- A.- Decreasing below 5 qts.
- B.- During engine start.
- C.- Oil quantity detector or pressure fault.

28.- Does the FADEC provide EGT limit protection constantly?

- A.- Yes, in all phases of flight.
- B.- No, EGT limit protection is only available during ground auto starts.
- C.- No, EGT limit protection is only available during ground auto starts and single-engine operations.

29.- No, EGT limit protection is only available during ground auto starts and single-engine operations.

- A.- Both throttles are above idle but not above the CLB detent when both engines are running.
- B.- A single throttle of an operating engine is above idle but not above the MCT detent when one engine is running.
- C.- All of the above.

30.- The idle setting on the aircraft is capable of modulating due to certain conditions. During descent, what might cause the IDLE NI setting to increase?

- A.- The slats are extended.
- B.- For a higher than normal bleed air demand or warmer than normal engine oil temp in flight.
- C.- Both are correct.

- 31.- Verification that Autothrust (A/THR) is active can be made by:**
- A.- Watching the automatic movement of the thrust levers.
 - B.- Only when the thrust levers are set at TOGA.
 - C.- Only by looking at column five of the FMA.
- 32.- When Alpha floor is activated, what power setting is automatically commanded and what FMA annunciation would appear in Column one?**
- A.- TOGA / A. FLOOR
 - B.- CLB/CLB.
 - C.- MCT / THR LK.
 - D.- THR/LK.
- 33.- Holding the instinctive disconnect push button's for more than fifteen seconds will:**
- A.- Disengage the A/THR (including Alpha Floor) until below 1000 feet AGL for the remainder of the flight.
 - B.- Disengage the A/THR (including Alpha Floor) until below 500 feet AGL for the remainder of the flight.
 - C.- Disengage the A/THR (excluding Alpha Floor) for the remainder of the flight.
 - D.- Disengage the A/THR (including Alpha Floor) for the remainder of the flight.
- 34.- During the automatic start sequence of ENG 2, you notice that only igniter B is powered. Is it normal?**
- A.- Yes, igniter A is only used for engine anti-ice.
 - B.- No, normally both igniters are used for all engine starts.
 - C.- Yes, igniter B is always used for ENG 2 start.
 - D.- Yes, igniters are used alternately for engine start.
- 35.- As far as FMA annunciations are concerned. what would indicate that the A/THR system is active?**
- A.- SPEED appears in green in column one, line one.
 - B.- AITHR changes from blue to white as shown in column five, line three.
 - C.- A/THR changes from white to blue in column five, line one.
 - D.- SPEED appears in amber in column one, line one.

- 36.- If the thrust levers are set in the idle detent, is Alpha floor protection still available?**
- A.- Yes. Thrust lever position is disregarded.
 - B.- Yes, as long as 'A/THR' appears in Column five.
 - C.- No, because the IDLE detent is out of the A/THR active range.
- 37.- Is there any mechanical linkage between the thrust levers and the engines?**
- A.- There is a fiber optic backup.
 - B.- There is a mechanical linkage in case the ECU fails.
 - C.- No, it is electrically powered and hydraulically actuated.
 - D.- No, it is totally electrical.
- 38.- What is Alpha floor protection?**
- A.- It helps prevent the aircraft from stalling and protects against windshear encounters during takeoff and approach.
 - B.- It is a function of the flight control laws to prevent the aircraft from stalling.
 - C.- It helps prevent the aircraft from stalling by limiting the angle of bank at low airspeeds.
 - D.- It helps prevent the aircraft from stalling by limiting the angle of climb at high airspeeds.
- 39.- Alpha floor protection is available:**
- A.- From lift off and down to 100 feet radio altitude in the landing configuration.
 - B.- From lift off and down to 50 feet radio altitude in the landing configuration.
 - C.- From lift off and down to 500 feet radio altitude in the landing configuration.
 - D.- From lift off and down to 750 feet radio altitude in the landing configuration.
- 40.- How do you arm the A/THR in flight?**
- A.- A/THR switch ON when throttles are in the engagement mode.
 - B.- A/THR switch ON when throttles are not in the engagement mode.

- 41.- What is the difference between variable thrust and the speed mode?**
A.- In the fixed thrust mode, thrust is fixed and the elevator controls the speed.
B.- In the variable thrust mode, thrust is fixed and speed is controlled by the elevator.
C.- In the fixed thrust mode, thrust is variable and speed is controlled by the elevator.
- 42.- The left column, first line of the FMA is used to indicate:**
A.- If A/THR is off, armed, or active.
B.- The mode of the A/THR in use when A/THR is armed or active.
C.- Amber caution messages.
D.- The thrust indication.
- 43.- What are the two basic modes of the A/THR system?**
A.- Thrust and Mach.
B.- Thrust and speed.
C.- Variable thrust and fixed speed.
D.- Mach and speed.
- 44.- Is any thrust lever action required if an engine failed at rotation while using FLEX takeoff power?**
A.- Yes.
B.- No.
- 45.- Can the engines be overboosted in the TOGA position?**
A.- Yes, if the autothrust function is not active.
B.- No, because the ECU provides engine protection limit by monitoring N1, N2, and HMU fuel flow adjustments.
C.- No, because the EIU is responsible for monitoring N1 and N2.

- 46.- What does the FLEX represent in the FLX/MCT detent?**
- A.- This is a reduced thrust setting used for takeoff.
 - B.- This is the maximum continuous thrust setting for single-engine operations.
 - C.- This is the thrust setting that should be chosen in the case of a single engine go-around.
 - D.- This is a derated thrust according the ground temperature of the day.
- 47.- How many FADEC's are installed in the aircraft?**
- A.- I Two, one per engine.
 - B.- One, with two Engine Control Units (ECU).
 - C.- Two per engine.
 - D.- Two, one is the active FADEC and the other is a standby.
- 48.- What is required for the FADEC to compute a reduced thrust setting?**
- A.- A FLEX temperature must be entered on the INIT page of the MCDU.
 - B.- Nothing, it is an automatic function of the FADEC.
 - C.- A FLEX temperature must be entered on the TAKE OFF PERF page of the MCDU.
- 49.- Using manual thrust, the thrust lever position will determine the thrust setting for the engine.**
- A.- True. They will operate like conventional throttles.
 - B.- True, but care must be taken not to overspeed the engines.
 - C.- False. the next higher detent will be the thrust limit.
- 50.- What is considered to be the active range of the A/THR system?**
- A.- During single engine operations from just above the IDLE stop to the FLX/MCT detent.
 - B.- During two engine operations from just above the IDLE stop to the CL detent.
 - C.- Both are correct.

- 51.- During an automatic start sequence; selecting the ENG MASTER switch to on:**
- A.- Closes the pack valves.
 - B.- Initiates the start sequence.
 - C.- Displays the ECAM engine page.
 - D.- First two statements are correct.
- 52.- The FADEC has control during a manual engine start sequence except for:**
- A.- The high pressure fuel valve.
 - B.- The start valve.
 - C.- An automatic abort.
- 53.- Continuous ignition is automatically provided during the following:**
- A.- Flex or TO/GA thrust is selected on the ground.
 - B.- ENG ANTICE switch is ON.
 - C.- Engine surge on stall occurs in flight.
 - D.- Any or the above.
- 54.- The A/THR is armed on the ground provided at least on FD is on by:**
- A.- Setting the throttles to TO/GA.
 - B.- Automatically at engine start.
 - C.- With engines running; pressing the A/THR p/b manually.
- 55.- If a throttle is set between two detents; the FADEC selects the rating limit.**
- A.- Determined by the throttles position.
 - B.- Corresponding to the higher mode.
 - C.- Corresponding to the lower mode.
- 56.- When the A/THR system is in use:**
- A.- The throttles move automatically according to FADEC commands.
 - B.- The throttles can only be moved manually.
 - C.- The throttles will move when the A/THR p/b is used.

- 57.- A/THR engagement is confirmed when 'A/THR' is displayed in _____ in the right column of the FMA.**
- A.- Green.
 - B.- Blue.
 - C.- White.
- 58.- If an A/THR disconnect switch is pushed and held for more than _____ seconds; the A/THR system is disconnected for the remainder of the flight; including the _____.**
- A.- 10 seconds - Alpha floor Protection.
 - B.- 12 seconds - Alpha floor Protection.
 - C.- 15 seconds - Alpha floor Protection.
 - D.- 18 seconds - Alpha floor Protection.
- 59.- Takeoff can be performed using which power settings?**
- A.- Any manual setting.
 - B.- FLEX and MCT.
 - C.- CLIMB and TO/GA.
 - D.- FLEX/MCT and TO/GA.
- 60.- When is T.O. INHIBIT and LDG INHIBIT active?**
- A.- To 750 feet AGL, LND below 1500 feet AGL.
 - B.- To 1000 feet AGL, LND below 1000 feet AGL.
 - C.- To 1500 feet AGL, LND below 750 feet AGL.
 - D.- To 1500 feet AGL, LND below 1000 feet AGL.
- 61.- How many thrust lever positions are there, and how are they labeled?**
- A.- There are 6 thrust levers positions: TO/GA, MCT, FLEX, CL, IDLE and REV IDLE.
 - B.- There are 6 thrust levers positions: TO/GA, FLX/MCT, CL, IDLE, REV IDLE and MREV.
 - C.- There are 4 thrust levers positions: TO/GA, FLX/MCT, CL, IDLE.
 - D.- There are 5 thrust levers positions: TO/GA, FLX/MCT, CL, IDLE and REV IDLE.

- 62.- You are just about to take off. You have not inserted a FLEX temperature. Can you still takeoff?**
- A.- Yes, by setting the thrust levers to the CLIMB detent.
 - B.- Yes, by setting the thrust levers to the FLEX/MCT detent.
 - C.- Yes, but only using the TO/GA detent.
 - D.- Not until a FLEX temperature is inserted.
- 63.- During an engine start sequence, the gray background on N2 disappears at about 57%. What does this indicate?**
- A.- That the igniters are no longer being powered.
 - B.- That the start sequence has finished and all engine parameters have stabilized.
 - C.- That the star valve air pressure has dropped.
 - D.- That there is a start fault and a dry crank is in progress.
- 64.- The full authority digital engine control (FADEC) controls which of the following functions.**
- A.- Fuel metering.
 - B.- Engine limits.
 - C.- Automatic and manual starting.
 - D.- All of the above.
- 65.- The FADEC is normally powered by:**
- A.- The RAT.
 - B.- Its own magnetic alternator.
 - C.- The normal aircraft electrical system.

I.- FIRE PROTECTION

- 1.- In the event a lavatory smoke detector detects smoke:**
 - A.- Warnings will be generated only in the cockpit.
 - B.- Warnings will be generated only on the flight deck.
 - C.- Warnings will be generated in the cockpit and in the cabin.

- 2.- What systems are affected when the guarded red ENGINE FIRE push button is pushed and released?**
 - A.- The Master Warning and the chime will be canceled and the AGENT pb's will be armed.
 - B.- All fluids, pneumatics and electrics relating to that engine are shut off.
 - C.- Both are correct.

- 3.- Will an APU fire test shut down the APU?**
 - A.- Yes.
 - B.- No.

- 4.- In the event an aft cargo compartment smoke detector detects smoke:**
 - A.- Extinguishing is automatic.
 - B.- Extinguishing is automatic only while on the ground.
 - C.- The crew must depress the appropriate DISCH switch.

- 5.- The APU provides for automatic fire extinguishing:**
 - A.- On the ground only.
 - B.- On the ground and in flight.
 - C.- Only when selected to automatic by ground personnel.

- 6.- **If you perform the APU FIRE TEST with only DC power available, you get the MASTER WARN on the ECAM.**
A.- True.
B.- False.
- 7.- **Engine fire loops are installed in the:**
A.- Pylon nacelle.
B.- Core.
C.- Fan.
D.- All the above.
- 8.- **When the aircraft is on the ground and the APU is started on battery power only, is fire protection available?**
A.- Yes, the APU will initiate an auto shutdown and discharge the extinguishing agent.
B.- No, but the APU will initiate an auto shutdown.
C.- No, automatic fire protection is only available if AC power is available.
- 9.- **How many fire extinguishing bottles are available for fighting an APU fire?**
A.- One.
B.- Two.
C.- One cylinder shared with the aft cargo compartment.
D.- Two cylinders shared with the aft cargo compartment.
- 10.- **APU fire detection is accomplished by:**
A.- A two channel SDCU located in the APU compartment.
B.- Two parallel fire detection loops.
C.- One fire detection loop.
D.- A three channel SDCU located in the APU compartment.

- 11.- After an APU fire has been detected how long will the chime continue to sound?**
- A.- Until the crew pushes the red MASTER WARN push button.
 - B.- Until the crew pushes and releases the guarded red APU FIRE push button.
 - C.- Both are correct.
- 12.- STATUS page: INOP SYS indicates ENG 1 LOOP B.**
- A.- One fire detection loop has failed. Fire detection for both engines is not available.
 - B.- One detection loop for engine 1 has failed. Fire detection for both engines is still available.
 - C.- One fire detection loop of engine 1 has failed. Fire detection for engine 1 is inoperative.
 - D.- Both fire detection loops of engine 1 have failed. Fire detection for engine 1 is inoperative.
- 13.- The aft cargo compartment smoke detection system consists of:**
- A.- A dual loop smoke detector.
 - B.- Four smoke detectors and a two channel smoke detection control unit.
 - C.- One smoke detector, one smoke detection control unit and two automatically discharging fire extinguishers.
 - D.- Three smoke detectors, one smoke detection control unit and two automatically discharging fire extinguishers.
- 14.- How long will the red APU FIRE pb on the overhead be illuminated?**
- A.- Until the crew pushes and releases the guarded red APU FIRE push button.
 - B.- For as long as the fire warning is present.
 - C.- Until the crew pushes the red MASTER WARN push button.
- 15.- The A-320 has dual fire detector loops to ensure that a fault in one fire loop will not affect fire detection capabilities.**
- A.- True.
 - B.- False.

- 16.- If there is an APU fire in flight the APU:**
- A.- Will automatically shut down and the fire bottle will discharge.
 - B.- Must be shut down manually and the agent manually discharged.
 - C.- Must be shut down manually but the fire bottle will discharge automatically.
- 17.- The engine extinguishing agent switch is armed when:**
- A.- The DISCH light is on.
 - B.- The engine fire switch illuminates.
 - C.- The engine fire switch is released out.
- 18.- Which of the following have automatic fire extinguishing systems?**
- A.- APU on ground and lavatory waste bins.
 - B.- APU on ground, lavatory waste bins and avionics bay.
 - C.- APU on ground, aft cargo, forward cargo, lavatory waste bins and avionics bay.
 - D.- Lavatory waste bins.
- 19.- Are there any warnings to alert ground personnel when there is a fire in the APU compartment?**
- A.- YES, but only if previously selected to automatic by the ground personnel.
 - B.- No, APU fire indications are only present in the cockpit.
 - C.- Yes, the flames.
 - D.- Yes, the external fire warning horn will sound and the APU red fire light will illuminate.
- 20.- A DISH light on either the engine or APU fire agent switches indicates:**
- A.- The APU or engine FIRE switch has been pushed.
 - B.- The extinguisher bottle has been discharged.
 - C.- A fault has occurred in the respective fire bottle.

- 21.- If a break in both engine fire loops occurs within _____ seconds of each other a _____ will occur.**
A.- 10 sec. a FIRE warning.
B.- 5 sec. a FIRE DET FAULT message on ECAM.
C.- 5 sec. a FIRE warning.
- 22.- The avionics compartment is the only area where there is no fire extinguishing system installed.**
A.- True.
B.- False.
- 23.- When the APU FIRE SWITCH is released out:**
A.- Shuts down the APU.
B.- Arms the squib on the APU fire extinguisher.
C.- The APU bleed and cross bleed valves are closed.
D.- All the above.
- 24.- Can the APU FIRE test be performed during battery power only?**
A.- Yes.
B.- No.
- 25.- With reference to cargo compartment fire extinguishing, which statement is true?**
A.- There are two fire bottles, one for the FWD compartment and one for the AFT.
B.- There is only one fire bottle, pressing either DISCH push button discharges it into both compartments.
C.- There is only one fire bottle, when it is discharged both amber DISCH lights come on.
D.- There are two fire bottles, when the DISCH pushbutton is pressed, they are both discharged into the appropriate compartment.

- 26.- If an engine fire is detected, when will the guarded red ENG FIRE push button light extinguish?**
- A.- Only after the fire warning no longer exists.
 - B.- When the crew pushes and releases the guarded red ENGINE FIRE pushbutton.
 - C.- When the crew pushes the red MASTER WARN pushbutton.
 - D.- When the crew pushes the red MASTER WARN pushbutton and then releases the guarded ENGINE FIRE pushbutton.
- 27.- How many halon fire extinguishing cylinders are per engine?**
- A.- Each engine has two fire extinguishers.
 - B.- Each engine has it's own dedicated fire extinguisher and has the capability to share the other engine's cylinder.
 - C.- Each engine has it's own dedicated fire extinguisher and has the capability to share one centrally located halon cylinder.
 - D.- Each engine has one fire extinguisher.
- 28.- In the event that the aft cargo compartment smoke detector, detects smoke:**
- A.- Only an ECAM message will be generated.
 - B.- Only a MASTER WARN and a CRC will be generated.
 - C.- A MASTER WARN, CRC and an ECAM message will be generated.
 - D.- A CRC and an ECAM message will be generated.
- 29.- How does the APU fire test on battery power differ from the APU fire test with all busses powered?**
- A.- There is no difference.
 - B.- While on battery power, only the red APU FIRE and AGENT/DISC push button will illuminate.
 - C.- It is not possible to test the APU fire protection while on battery power.

30.- Each lavatory is equipped with:

- A.- Two smoke detectors and one smoke detection control unit.
- B.- One smoke detector and one smoke detection control unit.
- C.- One smoke detector, and for lavatory waste bins, an automatically discharging fire extinguisher.
- D.- Two smoke detectors and two automatically discharging fire extinguishers.

31.- Each engine nacelle and pylon area is equipped with:

- A.- Two fire detection loops.
- B.- A single fire detection loop.
- C.- Two smoke detectors and two fire detection loops.
- D.- A single fire detection loop and a single smoke detector.

32.- In addition to the CRC and red MASTER WARN light, a good engine fire test will display which of the following (AC power available)?

- A.- The CRC and red MASTER WARN light indicate a positive engine fire test.
- B.- Lower ECAM engine page, pedestal mounted red FIRE annunciator, red ENG FIRE push button and the AGENT SWUIB/DISC lights illuminate.
- C.- EWD red 1 (2) ENG FIRE WARNING, lower ECAM engine page, red FIRE annunciator, red ENG FIRE push button, and AGENT SQUIB/DISC.

33.- If an APU fire is detected on the ground, the APU shuts down automatically and the agent is discharged _____ after the warning is activated.

- A.- Immediately.
- B.- 1 seconds.
- C.- 3 seconds.
- D.- 6 seconds.

J.- FLIGHT CONTROL

- 1.- Which of the following will automatically reset after landing?**
 - A.- THS.
 - B.- Rudder trim.
 - C.- Both are correct.

- 2.- The spoiler panels are the only flight control surfaces with no redundant control.**
 - A.- True.
 - B.- False.

- 3.- Which of the following statements is correct concerning the elevator aileron computers (ELAC's)?**
 - A.- Three computers which achieve normal elevator, stabilizer, and aileron control.
 - B.- Two computers which achieve normal elevator and aileron control.
 - C.- Two computers which achieve normal and standby control of the elevators, ailerons, and THS.

- 4.- When the landing gear is extended, pitch alternate law:**
 - A.- Remains the same.
 - B.- Degrades to pitch direct law.
 - C.- Degrades to pitch backup law.

- 5.- Is there any rudder pedal feedback for the yaw damping and turn coordination functions?**
 - A.- Yes.
 - B.- No.

6.- What are the rudder trim rates?

- A.- A/P on - 5 deg/sec, A/P off - 1 deg/sec.
- B.- A/P on - 2 1/5 deg/sec, A/P off - 5 deg/sec.
- C.- A/P on - 3 deg/sec, A/P off - 6 deg/sec.
- D.- A/P on - 5 deg/sec, A/P off - 6 deg/sec.

7.- The wing tip brakes, once activated:

- A.- Lock both the slats and flaps in their current position.
- B.- Lock only the flaps in their current position.
- C.- Lock only the slats in their current position.
- D.- Lock only the affected high lift system surfaces with in their current position.

8.- In Normal Law, what are the limits of Pitch Attitude protections with flaps Full

- A.- 30° nose up.
- B.- 35° nose up progressively reduced to 20°.
- C.- 25° nose up, progressively reduced to 20° at low speed.
- D.- There is no limit.

9.- The FAC's primarily control which control surface?

- A.- Elevator.
- B.- Rudder.
- C.- Aileron.
- D.- Elevator and aileron.

10.- What happens to the rudder limits if both FAC's fault?

- A.- The limit freezes at the fault condition until Flaps 1 is selected.
- B.- The limit freezes at the fault condition until Flaps 5 is selected.
- C.- The limit freezes at the fault condition until Flaps 1 is selected. Then resets to the low speed limits for increased control.

- 11.- With the aircraft in Pitch Alternate Law, roll is in _____ Law.**
A.- Direct.
B.- Normal.
C.- Alternate.
- 12.- What condition will cause auto flap retraction?**
A.- Exceed 210 kts at Flaps 1.
B.- Exceed 190 kt at Flaps 1.
C.- Exceed 195 kt at Flaps 1.
D.- Exceed 190 kt with Flaps 1 while extending the speedbrake lever.
- 13.- The FLAP lever sends signal to Slat Flap Control Computer (SFCC) to command movement.**
A.- True.
B.- False.
- 14.- Selection of flaps 1 in flight will select which of the following configurations?**
A.- Slats 1 and flaps 1 (1+F).
B.- Slats 0 and flaps 1 (0+F).
C.- Slats 1 and flaps 0 (1).
D.- Slats 1 and flaps 5 (1+F).
- 15.- Which of the following controls and monitors flaps and slats?**
A.- Two ELAC's.
B.- Wing tip brakes.
C.- One slat flap control computer (SFCC).
D.- Two slat flap control computer (SFCC's).
- 16.- Can you manually trim the rudder with the autopilot engaged?**
A.- Yes.
B.- No.

- 17.- The Ground Mode is different in Alternative Law.**
A.- True.
B.- False.
- 18.- What control surfaces do the FACs control?**
A.- The elevators.
B.- The spoilers.
C.- The rudder.
D.- All the above.
- 19.- If angle of attack protection is active or flaps are in the configuration Full:**
A.- Speed brake extension is inhibited.
B.- Aileron travel is reduced.
C.- Speed brake extension travel is reduced.
- 20.- Automatic pitch trim is inhibited when:**
A.- Radio altitude is below 50 feet (100 feet with autopilot coupled).
B.- Bank angle is greater than 33 degrees.
C.- Load factor is less than 1G.
D.- Both A and B.
- 21.- In pitch normal law, the elevator control changes from the normal mode to a protection mode when the angle of attack is greater than:**
A.- Alpha Max.
B.- Alpha Prot.
C.- Alpha Floor.
- 22.- Roll control in NORMAL LAW is achieved with:**
A.- Ailerons and spoilers.
B.- Ailerons, spoilers, and rudder.
C.- Ailerons, spoilers 2-5, and rudder.

- 23.- When ground spoilers deploy automatically:**
- A.- All ten-spoiler panels fully deploy.
 - B.- Four spoiler panels on each wing deploy.
 - C.- All ten-spoiler panels deploy half way.
 - D.- Six spoiler panels on each wing deploy.
- 24.- Selection of flaps 1 in flight will select which of the following configurations?**
- A.- Slats 1 and flaps 1 (1+F).
 - B.- Slats 0 and flaps 1 (0+F).
 - C.- Slats 1 and flaps 0 (1).
 - D.- Slats 1 and flaps 5 (1+F).
- 25.- When the landing gear is extended, pitch alternate law:**
- A.- Remains the same.
 - B.- Degrades to pitch direct law.
 - C.- Degrades to pitch backup law.
- 26.- The A-320 flight control surfaces are _____ controlled and _____ actuated.**
- A.- Electrically, hydraulically.
 - B.- Mechanically, hydraulically.
 - C.- Electrically, electrically.
- 27.- Sidesticks provide electrical signals to the flight control computers, if both sidesticks are operated:**
- A.- The inputs cancel each other.
 - B.- Both inputs are algebraically added.
 - C.- The F/O input is overridden by the CAP input.

28.- Roll control is achieved by:

- A.- Ailerons.
- B.- Ailerons and rudder.
- C.- One aileron and four spoilers on each wing.

29.- When the flaps are extended, the ailerons:

- A.- Go to the centering mode.
- B.- Pitch up 5 degrees.
- C.- Droop 5 degrees.

30.- If electrical power to a SEC fails:

- A.- The affected spoilers automatically retracts.
- B.- All spoilers automatically retract.
- C.- The affected spoilers remains in the last commanded position.

31.- Should the active elevator actuator fail, elevator control is:

- A.- Lost.
- B.- Maintained by the other actuator.
- C.- Reduced.

32.- Horizontal stabilizer trim automatically resets to zero degrees after landing.

- A.- True.
- B.- False.

33.- In Pitch Normal Law Flight Mode, pitch trim is:

- A.- Manual without the autopilot engaged.
- B.- Automatic as long as the autopilot is engaged.
- C.- Automatic with or without the autopilot engaged.

- 34.- In normal law, what is the maximum bank angle you can reach with the side stick fully deflected?**
- A.- 33°.
 - B.- 49°.
 - C.- 67°.
 - D.- 70°.
- 35.- Selection of flaps one prior to takeoff will select which of the following?**
- A.- Slats 1 and flaps 1 (1+F).
 - B.- Slats 0 and flaps 1 (0+F).
 - C.- Slats 1 and flaps 0 (1).
 - D.- Slats 1 and flaps 5 (1).
- 36.- Two control surfaces that have mechanical backup are:**
- A.- Elevator and rudder.
 - B.- Horizontal stabilizer and rudder.
 - C.- Speed brakes and rudder.
- 37.- Mechanically backup control surfaces:**
- A.- Are mechanically connected to the cockpit controls and do not require hydraulic power.
 - B.- Require hydraulic power for actuation.
 - C.- None of the above.
- 38.- Which of the following statements are correct concerning the side stick takeover push button?**
- A.- If the takeover push button is depressed for more than 40 seconds, the onside system will retain priority after the push button is released.
 - B.- The last pilot to depress the push button has priority.
 - C.- Both A and B.
 - D.- None of the above.

- 39.- Four hydraulically operated wing tip brakes are installed to lock the flaps or slats in case of:**
- A.- Asymmetry and overspeed.
 - B.- Symmetrical runaway.
 - C.- Uncommanded movement of the surfaces.
 - D.- All the above.
- 40.- While on the ground in Roll Normal Law there is a direct relationship between sidestick deflection and the corresponding aileron and spoiler deflection.**
- A.- True.
 - B.- False.
- 41.- TOGA thrust is provided regardless of throttle position when _____ engages the A/THR system.**
- A.- Alpha Max.
 - B.- Alpha Prot.
 - C.- Alpha Floor.
- 42.- To select speed brakes inflight:**
- A.- Push down on the speed brake handle and move it forward.
 - B.- Push down on the speed brake handle and move it aft.
 - C.- Pull up on the speed brake handle and move it aft.
- 43.- What computer normally commands the operation of the elevators and horizontal stabilizer?**
- A.- SEC 1.
 - B.- FAC 1.
 - C.- ELAC 2.

- 44.- In the event of a complete loss of electrical flight control signals, the airplane reverts to a _____ mode.**
A.- Mechanical.
B.- Alternate Law.
C.- Abnormal Attitude law.
- 45.- Are there any control surfaces with a mechanical backup?**
A.- Yes, the ailerons.
B.- Yes, the spoilers.
C.- Yes, the THS and the rudder.
D.- No, there are no control surfaces with mechanical backup.
- 46.- Which controls are used for the mechanical backup?**
A.- Ailerons and rudder.
B.- THS and rudder.
C.- Elevators and ailerons.
D.- THS and elevator.
- 47.- The message WING TIP BRK ON appears on the E/WD. What does it mean?**
A.- A hydraulic device locks the flaps in their present position.
B.- To reduce structural stress, the slats movement is being slowed down through the wing tip brakes.
C.- To avoid asymmetry, the outer slats are locked in their present position.
D.- Because of the locked flaps, the wing tip brakes also lock the slats.
- 48.- If both FAC's fail, what happens to the rudder limiter?**
A.- It immediately assumes the low speed position.
B.- It freezes at its present position and assumes the low speed position when flaps 1 are selected.
C.- Maximum rudder deflection can be obtained after slats extended.
D.- Maximum rudder deflection can be obtained after flaps extended.

- 49.- Can the crew makes a flight control input that will over-stress the airplane in direct law?**
- A.- No. The system is designed to avoid such an attempt.
 - B.- Yes, there are no protections provided in direct law.
- 50.- When is the Flight Mode active?**
- A.- From takeoff until landing.
 - B.- From liftoff until landing.
 - C.- From liftoff until flare mode engages at 50 ft RA.
 - D.- From takeoff until passing 50 kts on landing (main shock absorbers depressed).
- 51.- FAC generated slat and flap extension, retraction, and limiting speeds are visually displayed on which of the following?**
- A.- The MCDU perf page.
 - B.- The lower ECAM F/CTL page.
 - C.- Both pilot's PFD airspeed displays.
 - D.- All of the above.
- 52.- Aileron droop may best be confirmed by checking which of the following?**
- A.- The position of the ailerons on the exterior preflight inspection.
 - B.- The lower ECAM FLT/CTL page.
 - C.- The position of the flap handle.
- 53.- When do you get FLARE Mode in Alternate Law?**
- A.- Never. It goes directly from Alternate Law to Direct Law when the gear is selected down.
 - B.- When selecting Flaps 1.
 - C.- At glide slope interception.

- 54.- Let's assume the F/O presses his takeover pushbutton and releases it after more than 40 seconds.**
- A.- The Captain's side stick is de-activated unless he presses his takeover pushbutton.
 - B.- The Captain is unable to re-activated his side-stick for the rest of the flight.
 - C.- Both sticks are active.
 - D.- The Captain's side stick is active as long as the F/O' side stick is in neutral position.
- 55.- What happens to high speed (VMO/MMO) when you are in Alternate Law?**
- A.- VMO is reduced to 320 kt and MMO minus 10 kt.
 - B.- VMO is reduced to 330 kt and MMO minus 10 kt.
 - C.- VMO is reduced to 320 kt and MMO does not change.
 - D.- There is no change.
- 56.- Can the rudders be moved with both FAC's inoperative?**
- A.- Yes, if both FACs fail, maximum rudder deflection can be obtained when the slats are extended.
 - B.- Yes, if both FACs fail, maximum rudder deflection can be obtained.
 - C.- Yes, if both FACs fail, maximum rudder deflection can be obtained when the gear is extended or flaps extended at 1 mininum.
 - D.- No.
- 57.- Where do the SFCCs obtain AOA and air data information from?**
- A.- SEC.
 - B.- ELAC.
 - C.- ADIRU.
 - D.- ADC.
- 58.- What happens if you release the stick at 40 degrees of bank?**
- A.- The bank stays at 40°.
 - B.- The aircraft rolls back to 25°.
 - C.- The aircraft rolls back to 33° and resumes flight path stability.
 - D.- The aircraft rolls back to a bank angle less than 29°.

- 59.- How many actuators are provided to control the ailerons and how many hydraulic sources supply these actuators?**
- A.- 2 hydraulic sources with 4 actuators.
 - B.- 1 hydraulic source with 2 actuators.
 - C.- 4 hydraulic sources with 4 actuators.
 - D.- 3 hydraulic sources with 4 actuators.
- 60.- The wing tip brakes are:**
- A.- Pneumatically actuated.
 - B.- Electric brakes.
 - C.- Hydraulically actuated.
 - D.- Mechanically controlled, hydraulically actuated.
- 61.- In normal law, if one stick is rapidly pulled full back, can the aircraft's maximum allowable G load be exceeded?**
- A.- Yes. Rapid side stick deflection must never be made.
 - B.- Yes, until maximum pitch attitude is reached .
 - C.- No. At Maximum G load, the side sticks are de-activated for 5 seconds.
 - D.- No. The load factor limitation overrides side stick commands to avoid excessive G loads.
- 62.- Which of the following statements are correct concerning the side stick takeover push button?**
- A.- The last pilot to depress the push button has priority.
 - B.- If the takeover push button is depressed for more than 40 seconds, the onside system will retain priority after the push button is released.
 - C.- Both are correct.
- 63.- When is alpha floor not available?**
- A.- Out of normal law.
 - B.- Below 100 feet RA in landing configuration.
 - C.- If the A/THR is deactivated or unavailable.
 - D.- All the above.

64.- Which of the following statements is correct concerning the spoiler elevator computers (SEC's)?

- A.- Two computers which achieve spoiler control and standby elevator and THS control.
- B.- Three computers which achieve spoiler control and normal elevator and THS control.
- C.- Three computers which achieve spoiler control and standby elevator and THS control.

65.- What happens in the event of an single ELAC failure?

- A.- ELAC functions are transferred the SEC's.
- B.- ELAC functions are transferred the FAC's.
- C.- SEC functions are transferred the ELAC's.
- D.- The functions of the failed ELAC will be assumed by the remaining ELAC.

66.- Failure to retract the flaps after takeoff will:

- A.- Activate the wing tip brakes.
- B.- Result in automatic flap and slat retraction at 210 kts.
- C.- Result in automatic flap and slat retraction at 220 kts.
- D.- Result in automatic flap retraction at 210 kts.

67.- Turn coordination is available in Alternate Law.

- A.- True.
- B.- False.

K.- FMS AND NAVIGATION

- 1.- Vor data can be displayed on :**
 - A.- Both NDs.
 - B.- The DDRMI.
 - C.- Both A and B.

- 2.- Box prompts on the MCDU indicate data:**
 - A.- Entry is optional for FMGS operation.
 - B.- Entry is required for minimum FMGS operation.
 - C.- Will be filled in by the FMGS.

- 3.- The Engaged Vertical Modes are displayed on the Flight Mode Annunciator on the first line in:**
 - A.- Green or Blue.
 - B.- Green or Magenta.
 - C.- Blue.

- 4.- In the event of failure of the AIR DATA function of ADIRU 1 or 2; the affected displays can be manually selected over to ADR 3 by the:**
 - A.- ECAM/ND transfer selector.
 - B.- AIR DATA selector.
 - C.- ATT HDG selector.

- 5.- What is managed climb speed above 10,000 feet?**
 - A.- Green dot.
 - B.- 250 knots.
 - C.- 280 knots.
 - D.- Econ climb speed.

- 6.- With the autopilot engaged, either sidestick can be moved freely.**
A.- True.
B.- False, moving either sidestick will cause the autopilot(s) to desengaged.
- 7.- When the aircraft is in the Managed Guidance mode, it is:**
A.- Guided by the pilot selecting the specific flight modes and parameter target values on the FCU.
B.- Responding to pilot inputs of speed, altitude, and heading selected on the FCU.
C.- Following lateral, vertical and speed profiles as determined by the IRS'S.
D.- Following lateral, vertical and speed profiles as determined by the FMGS.
- 8.- An amber box on the MCDU screen indicates:**
A.- An optional data entry.
B.- A mandatory data entry.
C.- A compulsory reporting point.
D.- The waypoint indicated will be over flown.
- 9.- When can managed vertical navigation be engaged?**
A.- Only after managed speed has been engaged.
B.- At anytime regardless of the engagement status of lateral navigation or speed.
C.- Only after managed lateral navigation and managed speed have been engaged.
D.- Only after managed lateral navigation has been engaged.
- 10.- Managed guidance is engaged by:**
A.- Pulling on the desired FCU selector knob.
B.- Pushing on the desired FCU selector knob.
C.- Rotating 90° the desired FCU selector knob.

- 11.- What speed will the FMGS use in an Expedite climb?**
- A.- Green dot speed.
 - B.- ECON climb speed.
 - C.- 250 knots below 10,000 feet.
 - D.- Amber dot speed.
- 12.- The IR alignment count down stops one minute prior to accomplishment and the ALIGN lights are flashing. Why does it happen?**
- A.- It is an indication that there is a disagreement between the IRs and the alignment must be restarted.
 - B.- It is an indication that the alignment is complete but must be acknowledged.
 - C.- It is an indication that alignment has stopped as the present position data has not been entered from the FMGS.
- 13.- The selected database date has expired. When must the active data base be changed?**
- A.- Prior to entering the preflight data.
 - B.- Anytime prior to takeoff.
 - C.- The following calendar day.
- 14.- Which of the following NAV/AIDS can be auto tuned?**
- A.- ILS and ADF (for NDB data base approaches).
 - B.- VOR and DME.
 - C.- Both are correct.
- 15.- What is managed climb speed below 10,000 feet?**
- A.- Green dot.
 - B.- 250 knots.
 - C.- 280 knots.
 - D.- Econ climb speed.

- 16.- In flight, either the AP/FD pitch control, or autothrust may acquire and hold a target speed or Mach number, depending on the engaged modes. Speed control is "Managed" when the target comes from the SPD/MACH FCU window.**
- A.- True.
 - B.- False.
 - C.- Speed control is: Managed, when the target comes from the FMGS Selected, when the target comes from the SPD/MACH FCU window.
- 17.- The FMGS data base contains:**
- A.- Performance information, such as engine fuel flow, engine thrust, green dot data (L/D data), etc.
 - B.- Navigation information, such as nav aids, waypoints, airways, airports, runways, etc.
 - C.- Both are correct.
- 18.- If one GPS receiver fails, the three ADIRUs automatically select the only operative GPS receiver.**
- A.- True.
 - B.- False.
- 19.- FMGC 1 is not working. To enter data into the FMGC, which MCDU would you use?**
- A.- MCDU 1 ON THE Captain's side.
 - B.- MCDU 2 on the First Officer's side.
 - C.- Either MCDU 1 or MCDU 2.
- 20.- The pilot interfaces with the FMGS using the:**
- A.- FCU.
 - B.- Thrust Levers.
 - C.- MCDU.
 - D.- All of the above.

- 21.- With the DATA selector set to HDG, the time remaining until the completed IRS alignment is displayed on the control display. How long does it take normally?**
- A.- Approximately 1 minute.
 - B.- Approximately 3 minutes.
 - C.- Approximately 7 minutes.
 - D.- Approximately 10 minutes.
- 22.- When flying at cruise altitude, the aircraft navigates using radio NAV/AIDS only.**
- A.- True.
 - B.- False.
- 23.- Cost Index = 0 (zero) corresponds to:**
- A.- Minimum fuel consumption (max range).
 - B.- Minimum time.
 - C.- Best ratio between the flight time cost and the fuel cost.
 - D.- LRC (Long Range Cruise).
- 24.- While taxiing on the ground, the FMGS displays the position of the aircraft using:**
- A.- IRS and DME/DME.
 - B.- IRS only.
 - C.- IRS and VOR/DME.
 - D.- DME/DME and VOR/DME.
- 25.- Radio height is displayed on the PFD:**
- A.- Below 2500'
 - B.- When the loc or APP p/b is pressed.
 - C.- When a decision height is selected.

- 26.- ILS 1 information is displayed on _____ when operating in the rose ILS mode:**
- A.- PFD 2 & ND1.
 - B.- PFD 1 & ND1.
 - C.- PFD 1 & ND2.
- 27.- The on bat light on the ADIRS CDU illuminates:**
- A.- Only when all ADIRS are on battery power.
 - B.- When an ADIRS fault is detected.
 - C.- When one or more ADIRS, are supplied by airplane battery only.
- 28.- Amber box prompts on the MCDU indicate data:**
- A.- Entry is optional for FMGS operation.
 - B.- Entry is required for minimum FMGS operation.
 - C.- Will be filled in by the FMGS.
- 29.- Dashes on the mcdU indicate data:**
- A.- Entry is not allowed.
 - B.- is being calculated by the FMGS.
 - C.- Either A or B.
- 30.- If the flex temp is not entered on the takeoff page of the MCDU:**
- A.- A FLEX takeoff still available, set power with the thrust levers.
 - B.- The FMGS will enter it for you based on tat.
 - C.- A FLEX takeoff is not available.
- 31.- ZFW is entered on:**
- A.- INIT B page.
 - B.- PROG page.
 - C.- PERF page.

- 32.- What are the different types of flight guidance?**
- A.- Slaved and managed.
 - B.- Automatic and manual.
 - C.- Managed and selected.
 - D.- Managed and manual.
- 33.- One A/P can be engaged on the ground if the engines are not running.**
- A.- This A/P will disengage when both engines are started.
 - B.- This A/P will disengage when one engine is started.
 - C.- This A/P will disengage when speed is sensed at > 10 kts.
- 34.- Sidestick position and max. sidestick deflection are displayed on the ground on the PFD:**
- A.- Continuously after aircraft power is applied.
 - B.- After the first engine start.
 - C.- On takeoff roll when power is applied.
- 35.- The engaged vertical modes are displayed on the flight mode annunciator on the first line in:**
- A.- Green or blue.
 - B.- Green or magenta.
 - C.- Blue.
- 36.- In the event of failure of the AIR DATA function of ADIRS 1 or 2, the affected displays can be manually selected over to ADR 3 by the:**
- A.- ECAM/ND transfer selector.
 - B.- Air data selector.
 - C.- ATT HDG selector.
- 37.- The A320 has _____ air data inertial reference units (ADIRS).**
- A.- 2
 - B.- 3
 - C.- 4

- 38.- GPWS aural and visual warnings can not be inhibited.**
A.- TRUE.
B.- FALSE.
- 39.- The FMGC have three functions.**
A.- ECAM control, flight guidance, flight management.
B.- ECAM control, EIS control, flight management.
C.- Flight guidance, flight augmentation, flight management.
- 40.- The possible modes of FMGC operation are.**
A.- Dual.
B.- Independent.
C.- Single.
D.- All the above.
- 41.- Selection of the correct takeoff runway on the Fmgc prior to each flight is necessary because:**
A.- The fadec needs it to know how much to reduce the thrust to takeoff.
B.- Selection of the correct runway insures proper pressurization.
C.- Selection of the correct runway permits the FMGS to update its position at takeoff.
- 42.- The two basic modes of flight guidance on the A-320 are:**
A.- Slaved and coupled.
B.- Managed and selected.
C.- Manual and coupled.
- 43.- The managed mode of flight guidance is used for:**
A.- Lateral, vertical, and speed commands as selected on the FCU.
B.- Lateral, vertical, and speed commands as determined by the MCDU.
C.- Lateral, vertical, and speed profiles as determined by the FMGS.

- 44.- When the THRUST LEVERS are moved to the takeoff position, the FMGS updated its position at takeoff using:**
- A.- IRS/DME/DME positioning.
 - B.- IRS/ILS/DME positioning.
 - C.- The navigation database and the takeoff runway entered into the MCDU by the pilot.
 - D.- The VOR/DME currently tuned.
- 45.- During descent, if you push the Expedite (EXPED) push button, what speed will the aircraft try to maintain?**
- A.- Green dot.
 - B.- 340 knots.
 - C.- 3.000 fpm vertical speed.
 - D.- Standard 3.0 degrees angle of descent.
- 46.- The weather radar image can be displayed on which modes of the ND?**
- A.- Rose NAV or VOR.
 - B.- Rose VOR or Rose ILS.
 - C.- Rose NAV or ARC.
 - D.- All modes except Plan.
- 47.- How does the FMGC compute radio position?**
- A.- IRS only.
 - B.- IRS and VOR/DME.
 - C.- IRS, DME/DME.
 - D.- VOR/DME and DME/DME.
- 48.- You have been cleared to intercept the localizer. You have pushed the LOC push button on the FCU. If all necessary data has been entered in the MCDU, can you now engage both autopilots?**
- A.- No, the LOC must capture before both autopilots will engage.
 - B.- Yes.
 - C.- No, the APPR pushbutton must be pushed.

- 49.- What does pushing the APPR push button do?**
- A.- Arms managed navigation.
 - B.- Arms the Flight Guidance system to capture a localizer and glide slope if the information has been entered into the MCDU.
 - C.- Allows the aircraft to slow to green dot speed.
 - D.- Arms managed vertical navigation.
- 50.- During a turnaround, you notice that there is a residual ground speed on both NDs. How do you correct this?**
- A.- As the engines have been shut down, it is necessary to carry out a full realignment.
 - B.- There is no corrective action possible until the aircraft is completely electrically shut down.
 - C.- It is possible to carry out a rapid alignment by turning off all 3 ADIRS momentarily.
- 51.- When is the SRS active?**
- A.- During a Go Around (after the thrust levers are placed in the TOGA position) up to the acceleration altitude.
 - B.- At T/O, when TOGA or FLX power is set, SRS is displayed on the FMA and provides guidance up to the acceleration altitude.
 - C.- Both are correct.
- 52.- The energy circle is a green arc, centered on the aircraft's position and oriented towards the current track line. It is displayed on the NDs during descent, when HDG to TRK mode is selected.**
- A.- True.
 - B.- False.
- 53.- Can the crew depress the RMP ON NAV pushbutton and use the RMP for navigation simultaneously with FMGC auto tuning?**
- A.- Yes, because the opposite FMGC will continue to auto tune nav aids.
 - B.- No, RMP backup tuning supersedes the auto tuning function of both FMGC's.

- 54.- The Captain's FMA indicates - FD2 in column five, line two. What does this mean?**
- A.- FMGC #1 has timed out and flight guidance is lost.
 - B.- The first officer has pushed the priority take over pushbutton.
 - C.- FMGC #1 has timed out and FMGC #2 is now providing flight guidance for both pilots.
 - D.- The captain's FD pushbutton on the FCU has not been selected "ON" and FD2 has automatically crossed over.
- 55.- What do the white round lights on the FCU display mean?**
- A.- Selected guidance has been engaged.
 - B.- Automatic guidance has been engaged.
 - C.- Managed guidance has been armed or engaged.
- 56.- OPEN CLIMB (OP CLB) is a Managed mode.**
- A.- True.
 - B.- False.
- 57.- If you have depressed the EXPED push button and want to cancel this function, how could this be accomplished?**
- A.- Push the EXPED push button again.
 - B.- Pull the altitude, vertical speed, or speed knob.
 - C.- Retard the thrust levers to IDLE.
- 58.- The LOC mode disengages when:**
- A.- Another lateral mode is engaged.
 - B.- The pilot presses the LOC pushbutton again (engaging the HDG/TRK mode on the current HDG/TRK).
 - C.- Both are correct.
- 59.- Will the aircraft capture and navigate via the ILS signals if the ILS push button on the FCU is not pushed?**
- A.- Yes.
 - B.- No.

- 60.- The Electronic Flight Instrument System (EFIS) consists of _____ identical display units.**
A.- 4
B.- 5
C.- 6
D.- 8
- 61.- The three Display Management Computers (DMCS) acquire and process all input from airplane sensors and computers to generate the display images.**
A.- True.
B.- False.
- 62.- All nav aids are normally auto tuned by:**
A.- The FMGC.
B.- MCDU.
C.- ADIRU.
- 63.- The wind shear function of the FAC's is independent of the flight director on/off switch.**
A.- True.
B.- False.
- 64.- All PFD displays except attitude; speed; heading; altitude; and vertical speed are removed when pitch attitude exceeds 25 degrees nose up or 13 degrees nose down.**
A.- True.
B.- False.

- 65.- The airspeed indication on the PFD starts at:**
- A.- 100 kts.
 - B.- 80 kts.
 - C.- 50 kts.
 - D.- 30 kts.
- 66.- The speed trend arrow on the PFD airspeed scale indicates the speed value that will be attained in ____ seconds if the acceleration remains constant.**
- A.- 5
 - B.- 8
 - C.- 10
 - D.- 15
- 67.- The Armed vertical modes are displayed on the Flight Mode Annunciator on the second line in:**
- A.- Blue or magenta.
 - B.- Blue or green.
 - C.- White.
- 68.- When a double entry is needed on the MCDU (e.g. wind direction/speed: 270/110) the separating slash must be used. The trailing entry of a pair must be preceded by a slash if it is entered alone.**
- A.- True.
 - B.- False.
- 69.- An FMGS message which requires immediate attention is displayed in:**
- A.- Red.
 - B.- Amber.
 - C.- Magenta.

- 70.- If the SPD/MACH knob on the FCU is not pulled within a predetermined time to engage selected speed.**
- A.- The selection can be made at any time.
 - B.- The selection is lost and dashes are re-displayed.
 - C.- The selection is lost and the display goes blank.
- 71.- When the altitude knob on the FCU is pulled:**
- A.- The altitude is armed.
 - B.- The current altitude is canceled.
 - C.- OPEN CLIMB or DESCENT engages.
- 72.- The Standby Attitude indication will remain available for _____ minutes after total electrical failure.**
- A.- 5
 - B.- 7
 - C.- 10
 - D.- 22
- 73.- All NAV AID are normally auto tuned by:.**
- A.- The FMGC.
 - B.- MCDU.
 - C.- ADIRU.

L.- FUEL SYSTEM

- 1.- During normal operations when should the fuel transfer valves open?**
 - A.- When a low level is sensed in the center tank.
 - B.- When a low level is sensed in either outer wing cell.
 - C.- When low level is sensed in either inner wing cell.

- 2.- With fuel in the center tank the CTR TK MODE SEL push button selected to AUTO and CTR TK PUMP push buttons ON (lights out), which of the following conditions cause the center tank fuel pumps to stop?**
 - A.- Extension of the slats (after completion of the short test cycle).
 - B.- Anytime the slats are extended or an overfill condition is detected in either wing inner cell.
 - C.- For a short test period after the first Engine Master is selected "ON" when the slats are extended.

- 3.- With fuel in the center tank, the CTR TK MODE SEL push button selected to AUTO and the CTR TK PUMP push buttons ON (lights out), the center tank pumps:**
 - A.- Will operate for a short period after the first engine MASTER switch is selected ON and while slats are retracted.
 - B.- They will continue to run until the center tank is empty or slats are extended.
 - C.- Both are correct.

- 4.- After engine start, center tank fuel pumps run for _____ minutes regardless of slat position.**
 - A.- 1 minute.
 - B.- 2 minutes.
 - C.- 3 minutes.
 - D.- 5 minutes.

- 5.- **Why do the center tank pumps stop automatically when the slats are extended for takeoff?**
- A.- To keep the center of gravity as low as possible.
 - B.- During takeoff, the center tank fuel is pumped to the rear to trim aircraft.
 - C.- To ensure that the engines are fed from the wing tanks for takeoff (fuel segregation).
 - D.- During takeoff, the center tank fuel is gravity fed only.
- 6.- **What is the minimum fuel quantity for takeoff?**
- A.- 1,000 kg.
 - B.- 1,200 kg.
 - C.- 1,500 kg.
 - D.- 2,000 kg.
- 7.- **From which tanks will fuel gravity feed?**
- A.- Outer cell of the wing tanks, inner cell of the wing tanks, and/or center tank.
 - B.- Inner cell of the wing tanks, and center tank.
 - C.- Outer cell of the wing tanks, and inner cell of the wing tanks.
 - D.- The center tank only.
- 8.- **Center tank pumps do not stop 5 min after center tank low level reached. Where we can see that.**
- A.- Yes, only on the refueling panel.
 - B.- It is not possible to determine their position.
 - C.- Only on the ECAM Fuel page.
- 9.- **The message CTR TK FEEDG appears in the MEMO. What does this mean?**
- A.- The center tank fuel mode selector is OFF.
 - B.- The center tank pumps are OFF.
 - C.- At least one center tank pump is energized.
 - D.- A reminder to switch the center tank pumps OFF.

- 10.- Fuel transfer from the outer compartment to the inner compartment of the wing tanks occurs when the inner compartment quantity decreases to:**
- A.- 250 kilograms.
 - B.- 450 kilograms.
 - C.- 750 kilograms.
 - D.- 5000 kilograms.
- 11.- The Fuel Used indication on ECAM is reset:**
- A.- Manually by the pilot.
 - B.- Automatically at engine start on the ground.
 - C.- Automatically at electric power up of the aircraft.
- 12.- There are _____ fuel pumps in each A-320 fuel tank.**
- A.- 1
 - B.- 2
 - C.- 3
- 13.- Gravity feed to the engines is enabled from:**
- A.- The wing and center tanks.
 - B.- The center tank only.
 - C.- The wing tanks only.
- 14.- Can the position of the wing fuel transfer valves be checked?**
- A.- Yes, only on the refueling panel.
 - B.- It is not possible to determine their position.
 - C.- Only on the ECAM Fuel page.
 - D.- None of the above.

- 15.- With the center tank pump mode SEL switch in AUTO, the center tank pumps:**
- A.- Run for two minutes after both engines are running.
 - B.- Will not restart until slats are retracted in flight.
 - C.- Continue to run until five minutes after the center tank is empty.
 - D.- All the above.
- 16.- Fuel can be transferred from tank to tank:**
- A.- Only on the ground.
 - B.- In flight if the fuel X FEED push button is selected OPEN.
 - C.- In flight if the fuel X FEED push button is selected OPEN and center tank MODE SEL push button is selected to MAN.
 - D.- Fuel can never be transferred.
- 17.- The Fuel used indication on ECAM is reset:**
- A.- Manually by the pilot.
 - B.- Automatically at engine start on the ground.
 - C.- Automatically at electric power up of the aircraft.
- 18.- The fuel quantity indication on ECAM for the outer cell is boxed amber if:**
- A.- An outer fuel tank low level is detected.
 - B.- Outer cell fuel temperature is high.
 - C.- Both transfer valves fail to open when inner fuel tank is at low level.
- 19.- An amber line appears across the last two digits of the ECAM FOB indication when:**
- A.- Fuel quantity is unreliable.
 - B.- The center tank pumps are switched off.
 - C.- The center tank pumps have failed.

20.- The APU fuel system:

- A.- Obtains fuel from either center tank pump.
- B.- Uses it's own dedicated DC powered fuel pump.
- C.- Obtains fuel from the left fuel manifold via the left side fuel pumps or if needed, the APU fuel pumps.
- D.- Obtains fuel from the left fuel manifold via the right side fuel pumps.

21.- With the center tank pump mode SEL switch in AUTO; the center tank pumps:

- A.- Run for two minutes after both engines are running.
- B.- Will not restart until slats are retracted in flight.
- C.- They stop automatically 5 minutes after center tank low level is reached.
- D.- All the above.

22.- Fuel transfer from the outer compartment to the inner compartment of the wing tanks occurs when the inner compartment quantity decreases to:

- A.- 250 Kilograms.
- B.- 450 Kilograms.
- C.- 750 Kilograms.
- D.- 5000 Kilograms.

23.- What indication will you see on the overhead fuel panel if the center tank has more than 250 kilograms of fuel and the left or right wing tank have less than 5,000 kilograms.

- A.- Auto feed fault.
- B.- Fuel imbalance.
- C.- Mode select fault.
- D.- Fuel Auto feed fault.

- 24.- The wing fuel transfer valves are:**
- A.- Manually controlled and open when the MODE SEL push button is selected to MAN.
 - B.- Are electrically held closed.
 - C.- Open automatically at the start of refuelling.
 - D.- Automatically close if a low level is sensed in either main wing tank, they automatically close at the next fuelling.
- 25.- After engine shutdown, what are your actions to close the fuel transfer valves?**
- A.- You have to switch the inner tank pumps off.
 - B.- You have to call maintenance to close the valves.
 - C.- No action is required. The valves will close automatically during the next refuelling.
- 26.- How has the fuel been transferred from the outer to the inner tanks?**
- A.- By setting the MODE SEL pushbutton to MAN.
 - B.- The transfer valve has been opened automatically by the low level sensor in the center tanks.
 - C.- By setting the MODE SEL PB to AUTO.
 - D.- The transfer valve has been opened automatically by the low level sensor in the inner tank.
- 27.- The message OUTER TK FUEL XTRD appears in the MEMO?**
- A.- It is a reminder to show that a transfer valve is open.
 - B.- Fuel is transferring from the center tank to the inner tank.
 - C.- It is a reminder to open the outer tank transfer valve.
 - D.- Fuel is transferring from the inner tank to the outer tank.

M.- HYDRAULICS SYSTEM

- 1.- To extend the landing gear with the Gravity Extension Handcrank requires _____ turns of the handle.**
 - A.- 3 counter-clockwise.
 - B.- 2 counter-clockwise.
 - C.- 3 clockwise.

- 2.- The maximum degrees of nosewheel steering available when using the handwheel is _____.**
 - A.- +/-60.
 - B.- +/-75.
 - C.- +/-95.
 - D.- +/-105.

- 3.- The green DECEL light on the Autobrake switch illuminates when the actual airplane deceleration corresponds to _____ % of the selected rate.**
 - A.- 80
 - B.- 95
 - C.- 100
 - D.- 110

- 4.- The brakes pressure indication on TRIPLE PRESSURE INDICATOR reads which system pressure?**
 - A.- Yellow.
 - B.- Blue.
 - C.- Green.

- 5.- Which hydraulic systems have engine driven pumps?**
 - A.- Green and blue.
 - B.- Green and yellow.
 - C.- Blue and yellow.

- 6.- **Fluid can be transferred between hydraulic systems.**
A.- True.
B.- False.
- 7.- **Which hydraulic systems have engine driven pumps?**
A.- Green and blue.
B.- Green and yellow.
C.- Blue and yellow.
- 8.- **The RAT pressurizes the Blue hydraulic system to approximately _____ psi.**
A.- 1500
B.- 2500
C.- 3000
- 9.- **The PTU is automatically activated when the differential pump pressure output between the _____ and _____ systems is greater than _____ psi.**
A.- Blue, yellow, 1000.
B.- Green, yellow, 500.
C.- Green, yellow, 1000.
- 10.- **The PTU Fault light illuminates when the:**
A.- PTU is inoperative.
B.- Green or yellow reservoir has low air pressure.
C.- PTU pump has overheated.
- 11.- **The A-320's three hydraulic systems are normally pressurized by:**
A.- Two engine driven pumps and one electric pump.
B.- Two electric pumps and one PTU.
C.- Two electric pumps and one engine driven pump.
D.- One electric pump and one engine driven pump.

- 12.- For hydraulic system malfunctions, when will the RAT deploy?**
- A.- Automatically with the failure of both the green and blue hydraulic systems.
 - B.- Automatically with the failure of both the green and yellow hydraulic systems.
 - C.- Only when the guarded RAT MAN ON push button is selected by the crew.
 - D.- When airspeed drops below 100 knots with the gear up.
- 13.- When will the yellow system electric pump operate? (AC power is available).**
- A.- During the second engine start.
 - B.- When the first engine MASTER switch is moved to the ON position.
 - C.- If any N2 RPM is less than 45%.
 - D.- When the yellow electric system ELEC PUMP push button is selected to ON or the ground crew activates a cargo door switch.
- 14.- When using the alternate brake system on accumulator pressure only; the accumulator supplies:**
- A.- Partial brakes.
 - B.- At least seven full brake applications.
 - C.- Alternate brakes with antiskid.
- 15.- After extending the RAT, is it possible to check it's position and status?**
- A.- Check to see if the blue system ELEC PUMP FAULT light is not illuminated.
 - B.- Yes, select the ECAM ELEC PAGE.
 - C.- No.
 - D.- Yes, select the ECAM HYD page.
- 16.- It is possible to pressurize the green hydraulic system on the ground via the PTU when the parking brake is set.**
- A.- True.
 - B.- False.

- 17.- The Eng Pump Fault light extinguishes when the engine pump switch is selected to off except for:**
- A.- Reservoir low level.
 - B.- Pump low pressure.
 - C.- An overheat.
- 18.- With the airplane on the ground and the blue electric pump switch in AUTO; the blue pump will be energized when:**
- A.- One engine is running.
 - B.- The BLUE PUMP OVRD switch has been pressed.
 - C.- First two statements are correct.
- 19.- The _____ hydraulic system provides power for gear extension/retraction.**
- A.- Yellow.
 - B.- Blue.
 - C.- Green.
- 20.- As long as the landing gear lever is up a hydraulic safety valve closes to cut off the hydraulic supply to the gear when the airspeed is:**
- A.- Greater than 260 Kias.
 - B.- Greater than 230 Kias.
 - C.- Less than 260 Kias.
 - D.- Less than 230 Kias.
- 21.- Auto braking is initiated by:**
- A.- Strut compression.
 - B.- Reverser action.
 - C.- Ground spoiler extension command.

22.- How many pumps have the yellow system to provide pressure (not counting the PTU)?

A.- 1

B.- 2

C.- 3

D.- 4

N.- ICE AND RAIN PROTECTION

- 1.- TAT probes are heated on the ground.**
A.- True.
B.- False.

- 2.- Probe heat comes on automatically when:**
A.- The AC ESS bus is powered.
B.- Electrical power is applied to the aircraft.
C.- When at least one engine is running.

- 3.- On the ground the wing anti-ice valves will:**
A.- Open during a test sequence (30 seconds), provided pneumatic supply is available.
B.- Not open at anytime.
C.- Open any time the switch is pushed "ON".

- 4.- The FAULT light on the wing anti-ice switch indicates:**
A.- Anti-ice valve position disagrees with selected position.
B.- Low pressure is detected.
C.- Either A or B.

- 5.- The ECAM will display WING A. ICE when the wing anti-ice switch is on.**
A.- True.
B.- False.

- 6.- The Fault light on the engine anti-ice switches indicates the valve:**
A.- Is closed.
B.- Position disagrees with position.
C.- Is open.

- 7.- With the loss of electrical power the engine anti-ice valves:**
- A.- Fail in their current position.
 - B.- Fail to the open position.
 - C.- Fail to the closed position.
 - D.- Fail to the mid position.
- 8.- When either engine anti-ice valve is open:**
- A.- Maximum EPR is increased.
 - B.- Minimum idle rpm is increased.
 - C.- Minimum idle rpm is reduced.
- 9.- Window heat operates at what power level in flight?**
- A.- Low.
 - B.- High.
- 10.- Inflight the ____ on each wing are anti-iced with pneumatic bleed air.**
- A.- Slats.
 - B.- Flaps.
 - C.- Three outboard slats.
- 11.- Can the wing anti-ice is tested on the ground?**
- A.- No.
 - B.- Yes, valves only open for 30 seconds.
 - C.- Yes, valves stay open till selected off.
- 12.- When a pneumatic leak is detected, the wing anti-ice valves:**
- A.- Close automatically.
 - B.- Open automtically.
 - C.- Remain in position.

- 13.- Probe heat comes on automatically when:**
- A.- The AC ess bus is powered.
 - B.- Electrical power is applied to the aircraft.
 - C.- When at least one engine is running.
- 14.- On the ground the wing ant-ice valves will:**
- A.- Open during a test sequence (30 seconds); provided pneumatic supply is available.
 - B.- Not open at anytime.
 - C.- Open any time the switch is pushed ON.
- 15.- What is the difference between the engine and wing anti-ice fault lights?**
- A.- Both indicate valve in transit, or valve position disagrees with selected position. Wing light also could indicate low pressure.
 - B.- Both indicate low pressure, or valve position disagrees with selected position. Wing light might indicate valve in transit.
 - C.- Both indicate valve in transit, or low pressure, wing light also could indicate valve position disagrees with selected position.
 - D.- Both indicate valve in transit, or overheat.
- 16.- With reference to the probe/window heat pushbutton, which of the following is true?**
- A.- The system should only be selected on in icing conditions.
 - B.- When in auto mode, the windows are heated only when necessary.
 - C.- The system should only be selected on after first engine start.
 - D.- Window heating comes on automatically after first engine start.
- 17.- If one engine anti-ice system fails, the second one takes over and provides anti-icing for both engines.**
- A.- True.
 - B.- False.

18.- What happens when either engine anti-ice is open?

- A.- Maximum N 1 is limited, continuous ignition is provided, maximum idle RPM is increased.
- B.- Maximum N 1 is limited, continuous ignition is provided, minimum RPM is increased.
- C.- Minimum N 1 is limited, continuous ignition is provided, minimum idle RPM is increased.

19.- With the loss of electrical power the engine anti-ice valves.

- A.- Fail in their current position.
- B.- Fail to the open position.
- C.- Fail to the closed position.
- D.- Fail to the mid position.

20.- With the loss of electrical power the wing anti-ice valves.

- A.- Fail in their current position.
- B.- Fail to the open position.
- C.- Fail to the closed position.

21.- What is the speed limit to operate the windscreen wipers?

- A.- 185 Kts.
- B.- 200 Kts.
- C.- 230 Kts.
- D.- 250 Kts.

22.- In the event of an electrical power loss:

- A.- The engine anti-ice valves will open automatically, anti-icing is ensured.
- B.- The engine anti-ice valves will close automatically, anti-icing is lost.
- C.- The engine anti-ice valves will be controlled by the wing anti-ice controls.
- D.- The engine anti-ice valves remain in the position they were before.

- 23.- At what power level does window heat operate while airborne?**
- A.- High power while airborne.
 - B.- Shifts from low to high as window temperature requires.
 - C.- Low power above 18,000 FT.
 - D.- Low power above 25,000 FT.
- 24.- What happens to engine RPM when either engine anti-ice valve is open?**
- A.- There is a fixed RPM increase.
 - B.- The N 1 limit for that engine is automatically increased.
 - C.- The N 1 limit for that engine is automatically reduced.
 - D.- There is a fixed RPM increase (3% of nominal N 1).
- 25.- Window heat operation begins:**
- A.- Automatically after the first engine start.
 - B.- If the probe/window heat push button is selected on by the crew prior to engine start.
 - C.- Both are correct.
- 26.- Rain protection is provided by:**
- A.- Warm bleed air blowing across the windshield.
 - B.- Rain repellent and windshield wipers.
 - C.- Both are correct.
- 27.- Can the wing anti-ice be tested on the ground?**
- A.- Yes, with valves only open for 30 seconds.
 - B.- Yes, valves stay open till selected off.
 - C.- No.

- 28.- Anti-ice and the icing protection is provided for:**
- A.- The engine nacelle's and three outboard wing slats.
 - B.- The engine nacelle's the horizontal stabilizer, and three outboard wing slats.
 - C.- The engine nacelle's the horizontal stabilizer, the vertical stabilizer and three outboard wing slats.
- 29.- The probe heaters can be activated manually prior to engine start by placing the probe/window heat pushbutton.**
- A.- True.
 - B.- False.
- 30.- The Rain RPLNT (Rain Repellent) pushbutton is inhibited on the ground when the engines stopped.**
- A.- True.
 - B.- False.

Ñ.- INDICATING AND REC. SYSTEM

- 1.- If both ECAM screens fail or are switched off, the E/WD information is:**
 - A.- Automatically transferred to the Capt.'s PFD.
 - B.- Lost for the rest of the flight.
 - C.- Displayed on an ND using the ECAM/ND XFR switch.

- 2.- Actions to be carried out are shown in ____ on the ECAM E/WD.**
 - A.- Blue.
 - B.- Amber.
 - C.- Red.

- 3.- MEMO display is located on the:**
 - A.- MCDU.
 - B.- SD memo section.
 - C.- EWD memo section.

- 4.- A "To Inhibit" or "LDG Inhibit" memo is displayed in magenta to remind the crew:**
 - A.- The takeoff or landing is inhibited.
 - B.- Most of the failure titles and associated checklists are suppressed.
 - C.- All of the failure titles and associated checklists are suppressed.

- 5.- When the TO CONFIG key is pushed it:**
 - A.- Simulates takeoff power application.
 - B.- Triggers a warning if the airplane is not properly configured.
 - C.- Displays TO CONFIG NORMAL if airplane properly configured.
 - D.- All the above.

- 6.- Following a failure of the ECAM control panel:**
- A.- The ECAM is lost.
 - B.- System pages can be displayed by pressing the ALL switch.
 - C.- The ECAM pages automatically transfer to the ND.
- 7.- The speed trend arrow on the PFD airspeed scale indicates the speed value that will be attained in _____ seconds if the acceleration remains constant.**
- A.- 5
 - B.- 10
 - C.- 15
- 8.- Weather radar can be displayed in what modes on the ND?**
- A.- ARC and ROSE NAV modes only.
 - B.- All modes except plan.
 - C.- ROSE VOR and ROSE ILS modes.
 - D.- ROSE NAV mode only.
- 9.- If a PFD fails, does anything happen automatically?**
- A.- The ATT HDG switch must be used on the switching panel in order to recover PFD information.
 - B.- Yes, the image automatically transfers to the display formerly occupied by the ND.
 - C.- Yes, the image automatically transfers to the UPPER ECAM.
 - D.- No.
- 10.- The three Display Management Computers (DMCS) acquire:**
- A.- A process all input from airplane sensors and computers to generate the display images.
 - B.- Data for the display of alert messages, aural alerts, and voice messages.
 - C.- Data for ACARS messages.

- 11.- The electronic centralized airplane monitoring (ECAM) system presents data on two identical CRT displays, they are:**
- A.- The PFD and the ND.
 - B.- The ND and the E/WD.
 - C.- The E/WD and the SD.
- 12.- An "STS" message will flash on the engine/warning display after engine shutdown to:**
- A.- Alert maintenance.
 - B.- Alert the crew.
 - C.- Remind the crew to turn off the ECAM.
- 13.- The A-320 Electronic Flight Instrument System (EFIS) consists of _____ identical display units.**
- A.- 4
 - B.- 6
 - C.- 8
- 14.- The system display (SD) has 12 different system pages that can be displayed:**
- A.- Automatically.
 - B.- On crew demand.
 - C.- Both A and B.
- 15.- If the Upper ECAM screen fails, the E/WD data is:**
- A.- Lost for the rest of the flight.
 - B.- Automatically transferred to the lower screen.
 - C.- Manually transferred to the MCDU.

O.- LANDING GEAR

- 1.- If the accumulator on the alternate brake system is your only source pressure, which of the following will be available?**
 - A.- Auto brakes and antiskid.
 - B.- Antiskid.
 - C.- Seven applications of the brake pedals.
 - D.- Three applications of the brake pedals.

- 2.- Can normal landing gear operation be restored after a gravity extension if green hydraulic pressure is available?**
 - A.- Restoration is always possible.
 - B.- It may be possible if the gravity extension was not caused by a failure of the landing gear mechanism.
 - C.- No, only maintenance can restore normal operation.

- 3.- The..... hydraulic system provides power for gear extension/retraction.**
 - A.- Yellow.
 - B.- Blue.
 - C.- Green.

- 4.- As long as the landing gear lever is up a hydraulic safety valve closes to cut off the hydraulic supply to the gear when the airspeed is:**
 - A.- Greater than 260 kias.
 - B.- Greater than 230 kias.
 - C.- Less than 260 kias.

- 5.- The normal brake system uses _____ hydraulic pressure and the alternate brakes use _____ system pressure, with _____ backup.**
 - A.- Green, blue, an electrical.
 - B.- Green, yellow, an accumulator.
 - C.- Green, yellow, an electrical.

- 6.- Autobraking is initiated by.**
A.- Strut compression.
B.- Reverser action.
C.- Ground spoiler extension command.
- 7.- The alternate brake system has the same capabilities as normal brakes except:**
A.- Anti-skid is inoperative.
B.- Autobrakes are inoperative.
C.- Both A and B.
- 8.- When using the alternate brake system on accumulator pressure only, the accumulator supplies:**
A.- Partial brakes.
B.- At least seven full brake applications.
C.- Alternate brakes with antiskid.
- 9.- The green decel light on the autobrake switch illuminates when the actual airplane deceleration corresponds to _____% of the selected rate.**
A.- 80
B.- 95
C.- 100
- 10.- The brakes pressure indication on triple pressure indicator reads which system pressure?**
A.- Yellow.
B.- Blue.
C.- Green.

- 11.- Which hydraulic system supplies pressure to the nose wheel steering?**
- A.- Green.
 - B.- Blue.
 - C.- Yellow and Blue.
 - D.- Green and Blue.
- 12.- If the brake system automatically transitions to alternate brakes with the A/SKID & N/W STRG switch in the ON position, which of the following will be available?**
- A.- Auto brakes and anti-skid.
 - B.- Only auto brakes.
 - C.- Brakes, auto brakes, anti-skid.
 - D.- Anti-skid.
- 13.- What is indicated by the autobrake DECEL lights?**
- A.- airplane deceleration is 25% of selected rate.
 - B.- Airplane deceleration is 50% of selected rate.
 - C.- Airplane deceleration is 100% of selected rate.
 - D.- Airplane deceleration is 80% of selected rate.
- 14.- On the E/WD, you notice the NW STRG DISC memo. What does it mean?**
- A.- The nose wheel steering has been disconnected by ground personnel.
 - B.- A failure in the nose wheel steering system has been detected.
 - C.- There is a discrepancy between the two nose wheel steering handwheel positions.
 - D.- The nose wheel steering computer has finished its self test.
- 15.- During pushback, you start engine #2. You observe the NW STRG DISC memo has changed to amber. Why?**
- A.- The NW STRG disconnect mechanism has failed.
 - B.- The yellow hydraulic system is now pressurized and the amber caption is a warning not to move the handwheel.
 - C.- The nose wheel steering is being reconnected by ground personnel. It is amber because the pin is removed.
 - D.- The memo has become amber because one engine is running.

- 16.- The maximum degree of nose wheel steering available when using the steering handwheel is _____.
A.- +/- 60
B.- +/- 75
C.- +/- 95**
- 17.- If the Landing Gear was gravity extended using the hand crank on the center pedestal, landing gear position must be verified through.
A.- The landing gear viewers.
B.- The landing gear indications depicted on the ECAM and, if available, the center panel LDG GEAR indicator panel lights.
C.- Both are correct.**
- 18.- Landing gear operation is inhibited at speeds:
A.- Below 100 knots.
B.- Above 260 +/- 5 knots.
C.- Below 100 knots and above 260 knots.
D.- Above 250 knots.**
- 19.- Can the gear be extended above 260 kts if necessary?
A.- Never.
B.- Yes, but manually only.
C.- Yes, but the ultimate limit is 285 kt CAS.**
- 20.- Which hydraulic system(s) supply pressure to the landing gear system?
A.- Green.
B.- Blue.
C.- Yellow and Blue.
D.- Green and Blue.**

- 21.- The antiskid deactivates when ground speed is less than ____.**
- A.- 10 kts.
 - B.- 20 kts.
 - C.- 25 kts.
 - D.- 30 kts.
- 22.- If the BSCU detects a brake system malfunction in flight with the A/SKID & N/W STRG switch in the ON position.**
- A.- The crew will be notified with an ECAM message after touchdown if the brake system does malfunction.
 - B.- The crew will be notified with an ECAM message.
 - C.- The crew must manually select alternate brakes.
 - D.- All of the above.
- 23.- What is required to arm the auto brakes?**
- A.- Green hydraulic pressure available, anti-skid, no failures in the braking system.
 - B.- Landing gear lever selected down and selection of an autobraking rate.
 - C.- Both are correct.
- 24.- What does each turn of the gravity gear extension handle do?**
- A.- Open gear door, unlock gear, drop gear.
 - B.- Open gear doors, drop gear, shut doors.
 - C.- Shutoff hydraulic pressure, open doors, unlocks gear.
 - D.- Open gear doors, shutoffs hydraulics, unlock gear, drop gear.
- 25.- How do you manually extend the landing gear?**
- A.- Lift the red handle and turn anticlockwise 4 turns.
 - B.- Lift the red handle and turn anticlockwise a minimum of 2 turns.
 - C.- Lift the red handle and turn clockwise a minimum of 4 turns.
 - D.- Lift the red handle and turn clockwise a 3 turns.

- 26.- How many turns are required on the gravity extension hand crank to extend the landing gear?**
- A.- 2
 - B.- 3
 - C.- 5
 - D.- 6
- 27.- If the Landing Gear was gravity extended using the hand crank on the center pedestal, what other systems will be inoperative?**
- A.- Nose wheel steering and auto braking.
 - B.- Nose wheel steering only.
 - C.- Anti-skid and auto braking.
 - D.- Nose wheeel steering and anti-skid.
- 28.- Auto brake may be armed with the parking brake on.**
- A.- True.
 - B.- False.
- 29.- When the landing gear is gravity extended, will nose wheel steering be available?**
- A.- Only if the A/SKID & NW STRG switch is selected ON.
 - B.- No.
 - C.- Limited nose wheel steering is available only through the captian's rudder pedals.
- 30.- Auto brakes, if selected, will only be activated by:**
- A.- The wheels spinning up.
 - B.- The struts being compressed.
 - C.- The brake pedals being depressed.
 - D.- The ground spoiler extension command.

- 31.- There are two triangles for each gear on the ECAM WHEEL page. What do they represent?**
- A.- Each triangle represents one wheel on the gear.
 - B.- Each triangle represents the position detected by one of the two computers systems.
 - C.- Each triangle represents one of the braking systems available for that gear.
 - D.- The front triangle indicates the position of that gear and the back triangle indicates the status of the brakes for that gear.
- 32.- What system pressure does the ACCU PRESS and BRAKES pressure indicator indicate?**
- A.- Yellow brake accumulator and yellow brake system pressure to the left and right brakes.
 - B.- Yellow brake accumulator and green brake system pressure to the left and right brakes.
 - C.- Yellow brake accumulator and green or yellow brake system pressure to the left and right brakes.
 - D.- Blue brake accumulator and green brake system pressure to the left and right brakes.
- 33.- ECAM: if you see a green arc shown over a wheel indication.**
- A.- It marks the hottest brake with a temperature of more than 100°C.
 - B.- It indicates an abnormal high temperature.
 - C.- The A/SKID system is automatically releasing the pressure of that brake.
 - D.- The L/G control system has detected a low tire profile.
- 34.- Nose wheels and main wheels have fusible plugs that prevent the tires from busting if they overheat.**
- A.- True.
 - B.- False.

- 35.- With the A/SKID & N/W STRG switch in the ON position, if the BSCU detects a brake system malfunction and/or normal braking is not available:**
A.- The crew will be notified with an ECAM message only if after touchdown the brake system does actually malfunction.
B.- Transition to the alternate brake system is automatic.
- 36.- You have just set the parking brake handle to ON. Is it still possible to check the main brake system using the toe brakes?**
A.- Yes. As soon as you press the brake pedals the BRAKES indicator will read main system pressure.
B.- No. It is not possible to press hard enough to obtain an accurate reading.
C.- No. When the PARK BRK is set, the other braking modes are deactivated.
- 37.- The gear doors remain open after a manual extension.**
A.- True.
B.- False.
- 38.- The steering handwheels, which are interconnected, can steer the nose wheel up to:_____ in either direction.**
A.- 55°
B.- 65°
C.- 75°
D.- 90°
- 39.- Each main wheel has an antiskid brake.**
A.- True.
B.- False.
- 40.- The parking brake accumulator is designed to maintain the parking pressure for at least _____.**
A.- 6 hours.
B.- 12 hours.
C.- 18 hours.
D.- 24 hours.

- 41.- The autobrake will arm if at least one ADIRS is functioning.**
A.- True.
B.- False.
- 42.- What happens to the other brake modes when parking brakes are applied?**
A.- There is no change.
B.- All other braking modes and antiskid are deactivated.
C.- Antiskid mode only is deactivated.
- 43.- How can the brake accumulator be re-pressurized?**
A.- With the yellow electric hydraulic pump.
B.- With the blue electric hydraulic pump.
C.- Both are correct.

P.- LIGHTS

- 1.- If normal electrical power is lost, essential cockpit lighting is maintained for the:**
 - A.- Captain\'s instrument panel.
 - B.- Standby compass.
 - C.- Right dome light (provided the dome selector is not off).
 - D.- All off the above.

- 2.- All cabin signs come on automatically when the cabin altitude exceeds _____ feet, regardless of the respective switch position.**
 - A.- 9.550
 - B.- 10.000
 - C.- 11.300

- 3.- The strobe light selector is set to auto. In this position, when do the strobe lights stop flashing?**
 - A.- When the aircraft touches down.
 - B.- When the first reverser is deployed.
 - C.- When the landing lights are switched off.
 - D.- When the last engine has been shut down.

Q.- OXYGEN

- 1.- The passenger oxygen mask doors open automatically if the cabin altitude exceeds:**
 - A.- 9.550 FT.
 - B.- 10.000 FT.
 - C.- 14.000 FT.

- 2.- Illumination of the SYS ON light is an indication that:**
 - A.- All of the passenger masks have deployed.
 - B.- The crew must depress the mask man on pb in order to deploy the masks.
 - C.- Electrical power has been sent to deploy the masks, either manually or automatically.

- 3.- Cockpit crew oxygen can be turned off from the cockpit?**
 - A.- True.
 - B.- False.

- 4.- Crew oxygen pressure is displayed on the ECAM page:**
 - A.- DOOR/OXY.
 - B.- CRUISE.
 - C.- CAB PRESS.

- 5.- when does passenger oxygen flow start?**
 - A.- when the mask is pulled toward the seat.
 - B.- when the oxygen doors open.
 - C.- When cabin altitude exceeds 14.000 ft.
 - D.- When the oxygen button is pushed.

- 6.- **what is the purpose of the crew supply push button?**
- A.- When selected ON, it supplies oxygen to the third and fourth occupant mask in the cockpit.
 - B.- When selected to ON, it supplies oxygen to the third and fourth occupant when selected to ON, it allow the flow of low pressure oxygen to the crew's mask in the cockpit.
 - C.- In case of low cylinder pressure it allows the crew to tap into the passenger oxygen system.
- 7.- **On which ECAM page could the flight crew the exact pressure of the oxygen cylinder?**
- A.- The PRESS page.
 - B.- The DOORS page.
 - C.- The COND page.
 - D.- The STATUS page.
- 8.- **What is indicated by a missing green thermal plug during an exterior preflight?**
- A.- An oxygen system overpressure or thermal discharge.
 - B.- This is normal indication, the green thermal plug only appears if the oxygen cylinder is low.
 - C.- The crew oxygen bottle is empty.
 - D.- An external fire discharge has been activated.
- 9.- **What is the main difference between the crew and the passenger oxygen system? There is no difference: both are served by oxygen cylinders.**
- A.- Crew is supplied from an oxygen cylinder; passengers are supplied by chemical oxygen generators.
 - B.- Both the crew and passengers are supplied with oxygen from chemical oxygen generators.
 - C.- The crew has an oxygen bottle for an emergency back-up supply.

10.- What happens when the mask is used with the selection at 100% position?

- A.- Mask is supplied with diluted oxygen on demand.
- B.- Mask is supplied with undiluted oxygen on demand.
- C.- Mask is supplied with undiluted oxygen continuous flow.
- D.- Mask is supplied with diluted oxygen on demand.

11.- At approximately what cabin altitude should the passenger oxygen masks drop?

- A.- 10,000 feet (+100, - 500 ft).
- B.- 12,500 feet (+ or - 500 ft).
- C.- 14,000 feet (+ 0, - 500 ft).
- D.- 15,000 feet.

12.- What does an amber OXY on the ECAM Doors mean?

- A.- The crew supply switch is turned off and/or oxygen pressure is less than 400 psi.
- B.- The crew supply switch is turned off.
- C.- Oxygen pressure is less than 650 psi.
- D.- Oxygen pressure is less than 300 psi.

13.- There are oxygen generators in each aircraft's galley.

- A.- True.
- B.- False.

14.- Approximately how long are the passenger oxygen generators able to produce oxygen?

- A.- 15 minutes.
- B.- 22 minutes.
- C.- 25 minutes.
- D.- 30 minutes

15.- What will depressing the guarded MASK MAN ON pb accomplish?

- A.- A signal is sent to the chemical oxygen generators to start the flow of oxygen to the masks.
- B.- It manually sends a signal to open the oxygen mask doors.
- C.- Both are correct.

16.- Passenger oxygen is supplied by:

- A.- Individual high pressure bottles at each seat.
- B.- A single high pressure bottle in the lower fuselage.
- C.- A chemical generator system.

17.- Cockpit crew oxygen is provided by:

- A.- A solid state chemical system.
- B.- A single high pressure bottle.
- C.- Individual high pressure bottles at each station.

R.- POWER PLANTS

- 1.- A/THR engagement is confirmed when "A/THR" is displayed in _____ in the right column of the FMA.**
 - A.- Green.
 - B.- Blue.
 - C.- White.

- 2.- The FADEC will automatically abort an abnormal start thereby providing engine limit protection, but will the FADEC also automatically dry crank the engine?**
 - A.- No, that is why there is a CRANK selection on the ENG MODE selector.
 - B.- Yes, even if the crew interrupts the start by placing the ENG MASTER switch to OFF.
 - C.- Yes, as long as the ENG MASTER switch remains in the ON position.
 - D.- None of the above.

- 3.- The FADEC has control during a manual engine start sequence except for:**
 - A.- The high pressure fuel valve.
 - B.- The start valve.
 - C.- An automatic abort.

- 4.- Which ignition systems are used during a manual start?**
 - A.- A.
 - B.- B.
 - C.- Both A and B.

- 5.- The A/THR is armed on the ground provided at least one FD is on by:**
 - A.- Setting the throttles to TO/GA.
 - B.- Automatically at engine start.
 - C.- With engines running, pressing the A/THR p/b manually.

- 6.- The Full Authority Digital Engine Control (FADEC) controls which of the following functions:**
- A.- Fuel metering
 - B.- Engine limits
 - C.- Automatic and manual starting
 - D.- All of the above
- 7.- The normal mode to set thrust is:**
- A.- EPR.
 - B.- N1.
 - C.- N2.
- 8.- During an automatic start sequence, selecting the ENG MASTER switch to on:**
- A.- Closes the pack valves.
 - B.- Initiates the start sequence.
 - C.- Displays the ECAM engine page.
 - D.- Both A and B.
- 9.- Continuous ignition is automatically provided during the following:**
- A.- Flex or TO/GA thrust is selected on the ground.
 - B.- ENG ANTICE switch is ON.
 - C.- Engine Approach idle selected.
 - D.- All of the above.
- 10.- How many thrust lever positions are there, and how are they labelled?**
- A.- Six, TO/GA, MCT, FLEX, CL, IDLE and REV IDLE.
 - B.- Six, TO/GA, FLX/MCT, CL, IDLE, REV IDLE and MREV.
 - C.- Four, TO/GA, FLX/MCT, CL, IDLE.
 - D.- Five, TO/GA, FLX/MCT, CT, IDLE and REV IDLE.

- 11.- When the A/THR system is in use:**
- A.- The throttles move automatically according to FADEC commands.
 - B.- The throttles can only be moved manually.
 - C.- The throttles will move when the A/THR p/b is used.
- 12.- If an Instinctive Disconnect pb. is pushed and held for more than _____, the A/THR system is disconnected for the remainder of the flight, including the Alpha Floor Protection.**
- A.- 30 seconds.
 - B.- 15 seconds.
 - C.- 40 seconds.
- 13.- What does the FLEX represent in the FLX/MCT detent?**
- A.- This is a reduced thrust setting used for takeoff.
 - B.- This is the thrust setting that should be chosen in the case of a single-engine go-around.
 - C.- None of the above.
- 14.- What is required for the FADEC to compute a reduced thrust setting?**
- A.- A FLEX temperature must be entered on the INIT page of the MCDU.
 - B.- Nothing, it is an automatic function of the FADEC.
 - C.- A FLEX temperature must be entered on the TAKE OFF PERF page of the MCDU.
 - D.- A or C are correct.
- 15.- The FADEC is normally powered by:**
- A.- The RAT.
 - B.- It's own magnetic alternator.
 - C.- The normal aircraft electrical system.