# A320 TECHNICAL QUESTIONS (910)

*Last Updated 17th Feb 2019*

<table>
<thead>
<tr>
<th>Aircond, Press &amp; Ventilation (108)</th>
<th>Engines (64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autoflight (41)</td>
<td>Landing Gear (67)</td>
</tr>
<tr>
<td>Doors (17)</td>
<td>Oxygen (12)</td>
</tr>
<tr>
<td>Indicating/Recording (51)</td>
<td>Equipment (12)</td>
</tr>
<tr>
<td>Electrical (74)</td>
<td>Communication (53)</td>
</tr>
<tr>
<td>Pneumatics (45)</td>
<td>Flight Controls (78)</td>
</tr>
<tr>
<td>Fuel (27)</td>
<td>Navigation (66)</td>
</tr>
<tr>
<td>Ice and Rain Protection (38)</td>
<td>Fire Protection (46)</td>
</tr>
<tr>
<td>Hydraulic System (45)</td>
<td>Ambiguous Questions (31)</td>
</tr>
<tr>
<td>APU (35)</td>
<td>Disclaimer</td>
</tr>
</tbody>
</table>
AIRCONDITIONING – PRESSURIZATION – VENTILATION

Q 01: Conditioned air is distributed to:
A: Cockpit, cargo bays and cabin
B: Cockpit, fwd and aft cabins
C: Cockpit, avionics bay and cabin
D: Cockpit, cabin and holds 1 and 2 only

Q 02: 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.

Q 03: Does the trim air provide the warm air or the cold air to the air conditioning system?
A: Cold air
B: Warm air

Q 04: In case of zone controller primary and secondary channel failure, what temperatures are maintained by pack one and pack two?
A: 15 deg C both
B: 25 deg C both
C: 20 deg C for pack one and 10 deg C for pack two
D: 24 deg C for pack one and 15 deg C for pack two

Q 05: In normal flight in closed circuit configuration, the avionics ventilation system controls the temperature of the cooling air by:
A: Adding airconditioned air to the flow
B: Extracting air overboard
C: Adding avionics bay air
D: Passing air through a skin heat exchanger
Q 06: To enable Ram air to the mixture 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

Q 07: 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

Q 08: 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

Q 09: 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

Q 10: Hot air pressure 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
Q 11: 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

Q 12: Trim air valve, each one optimizes the temperature by:

A: Adding hot air
B: Adding fresh air
C: Modulating of pack flow
D: Adding re-circulated air

Q 13: 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

Q 14: 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.

Q 15: 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.
Q 16: What is the normal maximum cabin altitude?

A: 8,000 ft
B: 9,550 ft +/- 350 ft
C: 14,000 ft
D: 800 ft

Q 17: What is the Max. negative Diff. pressure for the cabin?

A: 0 psi.
B: 1 psi.
C: 2 psi.
D: 8.6 psi.

Q 18: It is permissible to use simultaneously packs and LP ground unit during long stops in a hot airfield?

A: Yes
B: No
C: Yes, if external temperature is greater than 50 deg C
D: Yes, provided the airflow supplied by the ground cart is less than 1.2 kg/s

Q 19: What are the different sources of air for air conditioning and pressurization?

A: Engine bleed air and recirculated air (only on ground)
B: Engine bleed air and recirculated air.
C: Engine bleed air and recirculated air, or if selected, APU bleed air and recirculated air.
D: Engine bleed air only.

Q 20: 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?

A: Closed.
B: Open.
C: Closed or open regarding of the APU bleed valve.
D: Closed or open
Q 21: 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.

Q 22: The temperature of each aircraft zone is optimized by means of:
A: A HOT AIR valve.
B: A ZONE control valve.
C: A PACK FLOW VALVE.
D: A TRIM AIR valve.

Q 23: 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.

Q 24: When does normal depressurization occur?
A: 100 feet AGL above touchdown.
B: It is complete 1 minute after touchdown.
C: After flap retraction.
D: On landing touchdown

Q 25: Under what conditions should the pack flow controller be set to LO?
A: With a low passenger load to reduce bleed air demand and improve fuel efficiency.
B: With a low passenger load to increase cabin temperature
C: With a high passenger load to reduce cabin temperature
D: In cold conditions to achieve a higher cabin temperature range.
Q 26: 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.

Q 27: 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.

Q 28: What computers control the cabin and cockpit conditioned air?

A: Two zone controllers that pass information and requests to two pack controllers.

B: Two pack controllers that pass information and requests to three zone controllers.

C: Three zone controllers that pass information and instructions to two pack controllers for three zones.

D: One zone controller that passes information and instructions to two pack controllers for three zones.

Q 29: When would you select RAM AIR ON?

A: If additional cooling is required on the ground.

B: Dual pack failure or smoke removal.

C: When pack temperatures are too high.

D: When there is smoke in the cabin.

Q 30: 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.
Q 31: 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 cross-bleed selector

Q 32: 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.

Q 33: Under what conditions should the pack flow controller be set to HI?

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.

Q 34: 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.

Q 35: 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.

Q 36: 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 schedule for the landing.

A: True.
B: False.
Q 37: During flight below _____, Ram Air Valve can provide an emergency source of conditioned air during non-pressurized flight.

A: 5,000 feet
B: 8,000 feet
C: 10,000 feet
D: 12,500 feet

Q 38: 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.

Q 39: 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: The engine bleed valves.
D: Only the avionics cooling valves.

Q 40: What is the maximum negative differential pressure for the cabin?

A: 0 psi.
B: 1 psi.
C: 2 psi.
D: 3 psi.

Q 41: 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.
Q 42: Aft cargo indications may be found on which ECAM page(s)?
A: Only the CRUISE page.
B: Only the BLEED page.
C: Only the CAB PRESS page.
D: The CRUISE page and the COND page.

Q 43: Avionics ventilation system indications may be found on which ECAM page(s)?
A: Only the BLEED page.
B: Only the CAB PRESS page.
C: The in-flight ECAM cruise page.
D: The in-flight ECAM cruise page and the CAB PRESS pages.

Q 44: 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.
D: Engine interface units EIU’s

Q 45: In case of zone controller primary and secondary channel failure, what temperatures are maintained by Packs 1 and 2?
A: 15 deg C for both.
B: 25 deg C both.
C: **20 deg C for Pack one and 10 deg C for Pack two**
D: 24 deg C for Pack one and 15 deg C for Pack two.

Q 46: The PACK FLOW controller is set to NORM and yet the ECAM display shows PACK FLOW to be high. How is this possible?
A: As the engines are not running the PACK FLOW indicators are at the position they were selected to at the last shut down.
B: As no bleed air is flowing the PACK FLOW valves are spring loaded to the fully open position.
C: **HI flow is automatically selected regardless of PACK FLOW selector position because air is only being supplied by the APU.**
D: With cold outside air conditions the PACK FLOW is automatically increased to help increase the cabin temperature.
Q 47: 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

Q 48: 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 air and hot trim air 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.

Q 49: How many temperature selectors are there on the A320? 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.

Q 50: The temperature selectors are located in:

A: The cockpit
B: The cabin
C: Both
D: Only on the CIDS panel

Q 51: 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.
Q 52: 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.

Q 53: How can you change 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

Q 54: 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.

Q 55: 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.

Q 56: 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.
Q 57: 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.

Q 58: 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.

Q 59: Which configuration is the avionics ventilation system in while airborne with no abnormalities present?
A: Open.
B: Smoke.
C: Fire.
D: Closed.

Q 60: What is the maximum altitude associated with the pressurization system?
A: 39,100 feet
B: 39,500 feet
C: 41,000 feet
D: 41,100 feet

Q 61: Trim air valves are controlled by:
A: The zone controller.
B: Anti-ice valve.
C: Hot air pressure regulating valve.
D: The pack controller
Q 62: 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.

Q 63: The APU BLEED FAULT indicates that the main APU controller is in fault.

A: True.

B: False.

Q 64: 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 and the aft cargo rotary selector knob.

* Rotary selector is for temperature only

Q 65: The vent fan runs any time there is a normal ships power and the isolation valves are open.

A: True.

B: False.

Q 66: The cabin zone temperature sensors are ventilated by the air extracted by the lavatory and galley fans.

A: True.

B: False.

Q 67: Pressurization indications are found on which ECAM page(s)?

A: BLEED page.

B: Only on the CAB PRESS page.

C: The in-flight ECAM cruise page and the CAB PRESS page.

D: On the CAB PRESS & BLEED pages.
Q 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.

Q 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.

Q 70: 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.

Q 71: 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.

Q 72: What will cause the ENG BLEED fault light to come on?
A: Overpressure (downstream of bleed valve)
B: Bleed overheating
C: Wing or engine leak on associated side.
D: All of the above
Q 73: What does the CARGO HEAT HOT AIR FAULT light indicate?
A: A duct overheat is detected.
B: The Aft Cargo Pressure Regulating valve closes.
C: The system will reset if the ISOL VALVE switch is ON.
D: All of above.

Q 74: During Ground function operation, the outflow valve is:
A: Fully open.
B: Fully closed.
C: Positioned according to FMGS demands.

Q 75: The outflow valve is powered by:
A: One of two electric motors.
B: One of three electric motors.
C: Three mechanically linked electric motors.

Q 76: The purpose of the safety valve is to avoid:
A: Excessive positive pressure differential.
B: Excessive negative differential.
C: Both are correct.

Q 77: When landing elevation is set to AUTO, the landing elevation is sent to the controller from:
A: FMGS.
B: FCU.
C: ADIRS.
D: Captain baro ref.

Q 78: The mixing unit is connected to:
A: Packs, cabin air, emergency ram air inlet and LP ground connector
B: Packs, emergency ram air inlet and LP ground connector
C: Packs and cabin air
D: Pack 1 and pack 2 only.
Q 79: Once set to “ON” the air conditioning packs operate:

**A: Automatically and independently of each other**

B: Normally, but the output of one affects the other

C: Automatically, pack one as a master, pack two as a slave

D: Automatically, pack two as a master, pack one as a slave.

Q 80: Emergency ram air inlet. When set to “ON” the ram air valve will open and supply airflow:

A: In any case

**B: Diff. press < 1 psi, and ditching not selected**

C: Provided ditching is not selected

D: Provided ditching is selected.

Q 81: Cond. Zone regulator fault (primary channel failed):

**A: Cabin zone is at fixed temperature**

B: Packs are at fixed temperature

C: Secondary channel operates as back up and operation is as normal

D: The packs deliver a fixed temperature. 20 deg C for pack one and 10 deg C for pack two

Q 82: Temperature control is automatic and is regulated by:

A: Zone controllers

B: Pack 1 and 2 controllers

**C: Zone controllers, pack 1 and 2 controllers**

D: The pack flow control valves only.

Q 83: If a pack controller fails (primary and secondary channel failure), the pack outlet air temperature is controlled by:

A: Ram Air Valve

B: Hot air pressure regulating valve

**C: Anti-ice valve**

D: Trim air valve.
Q 84: The zone controller optimizes temperature by action on:

A: Pack anti-ice valve
B: Trim air valve
C: Pack flow control valve
D: Hot air pressure regulating valve

Q 85: When using APU bleed to supply the packs, with the pack flow selector at LO, the pack airflow is:

A: 80% of normal
B: Normal
C: 120% of normal
D: 110% of normal

Q 86: In case of trim air system fault (zone controller primary channel failure), the secondary channel of the zone controller regulated the zone temperature at:

A: 14 deg. C
B: 24 deg C
C: 15 deg. C
D: 10 deg. C

Q 87: In case of total zone controller failure:

A: Hot air and trim air valves open and packs deliver air at a fixed temperature (15 deg.C pack 1 and 10 deg.pack2)
B: Hot air and trim air valves close and packs deliver air at a fixed temperature (15 deg.C pack 1 and 10 deg.pack2)
C: Hot air and trim air valves close and packs deliver air at a fixed temperature (20 deg.C pack 1 and 10 deg.pack2)
D: Hot air and trim air valves open and packs deliver air at a fixed temperature (20 deg.C pack 1 and 10 deg.pack2)

Q 88: During landing run, Ram Air Inlet flaps open when speed is less than:

A: 77 kts (after 30 seconds delay)
B: 70 kts (after 1 minute delay)
C: 70 kts (after 20 seconds delay)
D: 85 kts (after 20 seconds delay)

* Match the 0s.
Q 89: The ditching switch when selected sends a closure signal to:
A: Outflow valve
B: Ram air inlet and ventilation extract valves
C: The pack flow control valves
D: All of the above

Q 90: In flight with pressure controller 1 in use, if it fails:
A: You have to use the manual control
B: Transfers automatically to controller 2
C: You have to select manually controller 2
D: You have to set the landing elevation.

Q 91: In normal operation, pressurization is:
A: Fully automatic
B: Manually controlled
C: Automatic, but landing elevation must be manually set
D: Remaining automatic only with CPC 1 is in use.

Q 92: During ground function operation, the outflow valve is:
A: Fully open
B: Fully closed
C: Positioned accordingly to FMGS demands
D: Operating in abort mode

Q 93: To see the operation of the outflow valve, it is necessary to call ECAM:
A: Cond page
B: Bleed page
C: Press page
D: Vent page
Q 9: Two identical, independent, automatic digital pressurization controllers are used for system control:

A: One controller active, one in standby
B: Both controllers monitored by FMGC
C: No controller for climb phase and No.2 controller in cruise and descent
D: No.1 controller for climb and No.2 for descent

Q 95: Which controller generates excess cabin altitude and pressure signals for ECAM indication in manual mode:

A: Both
B: No.1
C: No2
D: Neither

Q 96: The safety valves are operated:

A: Electrically
B: Hydraulically
C: Pneumatically
D: By the FMGC

Q 97: The purpose of the safety valves is to avoid:

A: Excessive positive differential pressure
B: Excessive negative differential pressure
C: All of the above

Q 98: When mode selector is selected to manual, the outflow valve is controlled by signals sent via controller 1 or 2

A: True
B: False

Q 99: On ECAM Cab. press page, the outflow valve indicator changes to amber if:

A: It is fully closed
B: It is fully open on the ground
C: It is fully open in flight
D: It is not fully open on the ground
Q 10: On ECAM Cab. press page, the safety valve indication changes to amber if:
A: Both safety valves are fully open
B: Both safety valves do not open
C: Both safety valves are fully closed
**D: One safety valve is open.**

Q 101: On ECAM Cab. press page, the cabin altitude indication changes to red when cabin altitude is:
A: > 14,000 ft
B: > 12,500 ft
C: > 10,000 ft
**D: > 9,550 ft**

Q 102: Following a system 1 fault:
A: Master caution is activated and ECAM actions must be taken by the crew
B: The crew manually operates the system
C: System 2 must be selected by the crew
**D: System 2 takes over automatically without any crew action**

Q 103: The pressure safety valve opens at:
A: 8.06 psi
**B: 8.6 psi**
C: 9.0 psi
D: 7.0 psi

Q 104: After the engine start, the Pack Flow Control Valves automatically open, however on the ground, reopening of the valves is delayed for _____ after the first engine start.
A: 30 seconds
B: 45 seconds
C: 50 seconds
D: 60 seconds
Q 105: The Ram Air Inlet Flaps remain open during takeoff and landing to allow extra airflow during high power situations.
A: True
B: False

Q 106: The temperature of the air that exits the compressor section is displayed above the Pack Flow. It normally displays green, but displays amber for temperatures over:
A: 180 deg.C
B: 200 deg.C
C: 230 deg.C
D: 250 deg.C

Q 107: The trim air valves are _____ controlled by the zone controller
A: Electrically
B: Pneumatically
C: Hydraulically
D: None of the above

Q 108: The avionics ventilation system is not capable of using external air to provide cooling airflow
A: True
B: False

**Temperature Control Recap**

Temperature regulation for A320 is controlled by one zone controller and two pack controllers. There are two channels in both type of controllers.

**Zone Controller**
- In case of zone controller primary channel failure, the secondary channel regulates the zone temperature at 24°C.
- In case of zone controller primary and secondary channel failure, temperature optimization and the backup mode are lost. In this case pack one maintains 20 deg C and pack two 10 deg C.

**Pack Controller**
- In case of a pack controller primary channel failure, the secondary computer operates as a backup mode but regulation is not optimized.
- In case of a pack controller secondary channel failure, the backup mode is lost but there is no effect on pack regulation.
- In case of a pack controller primary and secondary channel failure, the pack outlet air temperature is controlled by anti-ice valve between 5 and 30 deg C.
Q 01: The Flight Management part of the FMGC includes the following elements:

A: Navigation, flight planning and A/THR commands.
B: Performance optimization, A/THR and AP commands
C: Navigation, flight planning, performance optimization and flight predictions
D: AP and FD commands and flight envelope computation.

Q 02: How can the present position of the aircraft be initialized?

A: Present position can be entered through the ADIRS CDU.
B: Present position can be entered on the INIT page of the MCDU.
C: Both are correct.

Q 03: What are the correct positions for the PFD and ND?

A: The PFD should be outboard and the ND should be inboard.
B: The PFD should be inboard and the ND should be outboard.
C: The PFD should be to the left of the ND for both seat positions.
D: The PFD should be inboard and the ND should be inboard.

Q 04: What information is supplied by the IR’s and displayed on the PFD?

A: Heading, attitude, and vertical speed.
B: Heading, altitude, and vertical speed *
C: Airspeed, altitude, and backup vertical speed.
D: Heading, attitude, and altitude.

* Some question banks have incorrectly marked B as correct.

Q 05: How long does a normal IR alignment take?

A: Approximately 3 minutes.
B: Approximately 6 minutes.
C: Approximately 10 minutes.
D: Approximately 13 minutes.
Q 06: The IR ALIGN light is extinguished. What does this mean?

A: **Alignment has been completed.**

B: Air data output has been disconnected.

C: The respective IR is operating normally.

Q 07: An amber flashing IR FAULT light indicates that:

A: Present position needs to be reentered.

B: **Attitude and heading information may be recovered in ATT mode.**

C: A complete failure of the respective IR has occurred.

Q 08: What action should be taken if IR #2 is lost:

A: Move the EIS DMC rotary selector knob to F/O 3.

B: Move the ATT HDG rotary selector knob to CAPT 3.

C: **Move the ATT HDG rotary selector knob to F/O 3.**

D: Move the ATT HDG rotary selector knob to F/O 1.

Q 09: A/THR in white means that A/THR is:

A: Disconnected.

B: Armed.

C: **Active**

Q 10: The white IR ALIGN light is flashing. What does this mean?

A: No present position has been entered and ten minutes has elapsed since the IR was selected ON.

B: **No present position has been entered and ten minutes has elapsed since the IR was selected ON. An alignment fault may exist.**

C: Attitude and heading information have been lost. An alignment fault may exist.

Q 11: What message is displayed if the database effective date does not match the clock date?

A: **Check Data Base Cycle.**

B: Check Data Base Date.

C: Check Effective Date.

D: Check the changeover date.
Q 12: Placing one of the ADR push buttons OFF will accomplish what?

A: The OFF light will illuminate and air data output will disconnect.
B: The respective ADIRU will become deenergized.
C: Both AD and IR information will be disconnected.
D: All of the above.

Q 13: While in-flight, operating in Normal law, in the Alpha Prot range:

A: The flight controls revert to direct law.
B: The flight controls remain in the load factor demand law.
C: The sidestick controller and flight controls revert to the AOA mode, and side stick deflection is proportional to AOA.

Q 14: What is the difference between -FD2 and 2FD- on the FMA?

A: 1 inop, 2 engaged. 2 engaged, 1 off.
B: 1 off, 2 engaged. 2 engaged, 1 inop*

* Normally FMGC1 is the source for the left side and FMGC2 for the right side. If both FMGCs are functional and FDs are on then 1FD2 should be displayed. If one FMGC fails then the other one becomes the source for both FDs e.g. If FMGC1 is inoperative then the display would be 2FD2 which means FMGC2 is the source for both FDs. If right FD is switched off then the display would be 2FD- as mentioned in the second scenario of the question.

Q 15: What does the LOW ACCURACY message mean?

A: FMGC 1 & 2 position difference exceeds limits.
B: FMGC position & actual radio position difference exceeds limits.
C: FMCG position & IR position difference exceeds limits.

Q 16: The thrust delivered by A/THR is already at MAX CLB thrust. Is it possible to obtain some additional thrust?

A: Yes, by setting a higher speed target.
B: Yes, by moving the thrust levers forward from the CL detent.
C: No, because the A/THR already delivers the maximum available thrust.
Q 17: What information is supplied by the Air Data Modules (ADMs) and displayed on the PFD’s?

A: Heading, attitude, and vertical speed.

**B: Airspeed, altitude, and backup vertical speed.**

C: Airspeed, vertical speed, and altitude.

D: Airspeed, attitude, altitude, and vertical speed.

Q 18: Can the autopilot be used for a single engine approach and autoland?

A: Yes.

B: No.

Q 19: During the takeoff phase:

A: **SRS mode will provide guidance to maintain V2+10 kts (minimum) as a speed reference**

B: SRS mode is available up to 1500 ft.

C: SRS mode will not engage if TOGA is selected.

Q 20: If the IR mode rotary selector is selected OFF:

A: AD and IR information will be disconnected.

B: AD information will be disconnected.

C: IR information will be disconnected.

**D: The ADIRU is not energized: AD and IR information is lost.**

Q 21: Which of the following statements is always true when operating in alternate law?

A: **Extending the landing gear will place the aircraft in Direct law.**

B: Extending the landing gear will place the aircraft in Mechanical backup law.

C: Extending the landing gear will place the aircraft in Mechanical backup law.

Q 22: Which protection is not available below 100 feet AGL?

A: Pitch attitude.

B: VLS.

C: ALPHA SPD (alpha speed)

**D: Alpha floor.**
Q 23: What does amber SPEED BRAKES mean on lower ECAM?
A: Speed brakes have a fault.
B: Speed brakes are extended and flap handle is not at 0.
C: Speed brakes are extended and engines are not at idle.
D: All of the above.

Q 24: If LOW ACCURACY message is displayed, are there any approach restrictions?
A: No
B: Yes, ILS approach only.
C: Yes, both LNAV and VNAV approaches are forbidden.

Q 25: The DDRMI provides the pilot with:
A: Bearing only for VOR 1.
B: Bearing and DME information for VOR 1 and ADF 1.
C: Bearing and DME information for VOR 2 and ADF 2.
D: Bearing only for VOR 1 and VOR 2.

Q 26: The ON BAT light will illuminate amber:
A: When one or more IR’s are operating on aircraft battery power.
B: For a few seconds at the beginning of the alignment process.
C: Both are correct.

Q 27: If both ELACs fail, what controls the elevator and stabilizer?
A: FACs.
B: SECs.
C: Elevator and stabilizer revert to mechanical backup.
D: Backup mode of ELAC’s
Q 28: Where is the information displayed by DMC #1 and DMC #2?

A: DMC #1 supplies data to PFD #2, ND #2 and LOWER ECAM. DMC #2 supplies data for PFD #1, ND #1, and UPPER ECAM.

B: ADMC #1 supplies data to PFD #1, ND #1 and LOWER ECAM. DMC #2 supplies data for PFD #2, ND #2, and UPPER ECAM.

C: DMC #1 supplies data to PFD #1, ND #1, and UPPER ECAM. DMC #2 supplies data for PFD #2, ND #2, and LOWER ECAM.

D: DMC #1 supplies data to PFD #1, ND #1 and LOWER ECAM. DMC #2 supplies data for PFD #2, ND #2, and LOWER ECAM.

Q 29: While in flight operating in Normal law, movement of the sidestick and subsequent return to neutral will command:

A: A load factor proportional to stick deflection, then maintain one G flight corrected for pitch attitude.

B: Control surface movements proportional to stick deflection, then return the aircraft to straight and level flight.

C: Control surface movements proportional to stick deflection, disconnect auto trim, and maintain its current attitude.

Q 30: In normal law all protections are active, which of the following lists is the most complete list?

A: Protections, Load Factor, Pitch attitude, High AOA, and High speed.

B: Protections, Load Factor, Pitch attitude, High AOA, Alpha floor, angle of bank, and High speed.

C: Protections, Load Factor, Pitch attitude, High AOA, VLS, Alpha floor, and High speed.

D: Protections, Load Factor and Pitch attitude.

Q 31: When in alternate law, all protections except _______ protection will be lost.

A: Roll attitude.

B: Pitch attitude.

C: Bank angle.

D: Load factor.

Q 32: When does the sideslip indicator change to a blue Beta target?

A: Flaps configuration 1.

B: Any EPR exceeds 1.25, and EPR’s differ by more than 0.30 *

C: Heading differs from track by 20 deg or more

D: Flaps configuration 1, 2.

* For aircraft without EPR the corresponding values are: Any N1 > 80% and difference >35%.
Q 33: High and low speed stabilities may be available in alternate law, stabilities:
A: Will not allow the pilot to stall the aircraft.
B: Prohibit steep bank angles.
C: Prohibit steep climb angles and bank angles.
D: Can be overridden by the pilot, and it is possible to exceed Vmo, Mmo and stall the aircraft.

Q 34: What is the function of the FACs?
A: Rudder and Yaw damping inputs, Flight envelope and speed computations
B: Rudder and Yaw damping inputs
C: Rudder and Yaw damping inputs and windshear protection
D: Rudder and Yaw damping inputs, Flight envelope and speed computations, and windshear protection

Q 35: What causes a DU to display a black screen with a white diagonal line?
A: The circuit breaker for that particular DU has popped.
B: DMC failure.
C: No power.

Q 36: Can the aircraft be controlled with a loss of all electrics?
A: Yes.
B: No.

Q 37: The ATT HDG and AIR DATA selectors on the switching panel in the NORM position indicate that:
A: ADIRU 1 is supplying information to PFD 1 and ND 2, and ADIRU 2 is supplying power to PFD 2 and ND 1.
B: ADIRU 1 is supplying information to PFD 1, ND 1 and the DDRMI; ADIRU 2 is supplying power to PFD 2 and ND 2.

Q 38: What action should be taken if ADR #1 is lost?
A: Nothing.
B: Move the ATT HDG knob on the switching panel to CAPT 3.
C: Move the AIR DATA knob on the switching panel to CAPT 3.
Q 39: How many Air Data/Inertial Reference Units (ADIRU’s) are installed?
A: One
B: Two
C: Three
D: Four

Q 40: On an autoland approach, with both autopilots on, which FMGC is master?
A: FMGC 1
B: FMGC 2
C: Both

Q 41: After a single DMC failure, how could a crewmember recover the display units?
A: Once a DMC has failed the information is unrecoverable
B: No action is needed as recovery is automatic.
C: Rotate the EIS DMC switch on the switching panel to replace the failed DMC with DMC #3.
Q 01: How is it determined that the cockpit sliding window is closed and locked?

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

Q 02: Opening a passenger door from the outside disarms the door and the escape slide.

A: True.
B: False.

Q 03: 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

Q 04: 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.

Q 05: The forward and aft cargo doors can be opened from:

A: The inside and the outside.
B: The outside only

Q 06: On the ECAM DOOR/OXY page, the SLIDE indication appears _____ when the slide is not disarmed.

A: White.
B: Amber.
C: Green.
D: Red.
Q 07: 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.

Q 08: Where does the Door and Slide Control System (DSCS) generate warnings?
A: On ECAM.
B: On the doors.
C: Both are correct.

Q 09: 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.

Q 10: The cockpit windows can be opened both from inside and outside.
A: True.
B: False.

Q 11: 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.

Q 12: 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.
Q 13: 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.

Q 14: 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 above the door.
C: To the floor brackets on both sides of the door.
D: All of the above

Q 15: 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.

Q 16: When opened in an emergency, the passenger entry doors:

A: 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.

Q 17: 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
Q 01: What does a pulsing green engine parameter indicate?

A: An ADVISORY, the parameter is about to reach the limit.
B: An ADVISORY, the parameter is out of the limits
C: A MEMO, the parameter has a faulty indication.
D: A level 3 failure requiring immediate crew action.

Q 02: On a bottom of the STATUS page, what does the green arrow mean?

A: It is a reminder to land as soon as possible.
B: It indicates that there is a system page behind.
C: It means that there is more information to be seen.

Q 03: When should the EMER CANC push button be used?

A: At the completion of an ECAM procedure for an abnormal procedure.
B: Whenever a LEVEL 3 warning or LEVEL 2 caution occurs.
C: Whenever a repetitive visual or aural warning, or caution is received that the crew has determined to be false.

Q 04: The actual speed is indicated by the _____ reference line.

A: yellow
B: amber
C: red
D: white

Q 05: 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: The image automatically transfers to the display formerly occupied by the ND.
C: The image automatically transfers to the UPPER ECAM.
D: It has to be manually activated.
Q 06: Course information from the #1 ILS receiver will be displayed:

A: On the captain’s PFD when the captain’s ILS push button is selected ON.
B: On the FO’s PFD when his ILS push button is selected on and on the captain’s ND, when the captain’s ND is selected to ILS ROSE.
C: On the captain’s PFD and ND when the captain’s ILS push button is selected ON.
D: The first two statements are correct

Q 07: Information from the #1 VOR receiver will be displayed:

A: On the capt’s PFD when the captain’s VOR bearing selector is selected to VOR.
B: On the capt’s ND when the capt’s VOR bearing selector is selected to VOR.
C: VOR #1 course information is available on the captain’s PFD and ND when the captain’s ILS pb is selected ON.

Q 08: What causes a display unit (DU) to go blank?

A: Loss of power.
B: Display unit internal failure.
C: Both are correct.

Q 09: What causes a DU to display a black screen with a white diagonal line?

A: DMC failure.
B: No power.
C: Both are correct.

Q 10: The maximum speed to select next higher flap setting is indicated by two amber dashes.

A: True.
B: False.

Q 11: VOR, ILS, and NDB raw data information is displayed on the ND in which of the following modes?

A: VOR, RMI and NDB information may be displayed in the ARC or ROSE NAV modes.
B: VOR and ILS information can be displayed in the ROSE VOR and ROSE ILS modes respectively
C: Both are correct
Q 12: The presence of VOR1 in red on the ND indicates:
A: The VOR station currently tuned is out of range.
B: The VOR station currently tuned is out of service.
C: The # 1 VOR receiver is inoperative.
D: The VOR station currently tuned is out of range.

Q 13: What is the meaning of “9000” in blue at the top of the altitude scale?
A: It marks the FCU selected altitude.
B: It marks the airfield elevation.
C: It marks the transition altitude.
D: It marks the decision height.

Q 14: How many DMC’s are there?
A: 1
B: 2
C: 3
D: 4

Q 15: After a single DMC failure, how could a crew member recover the display units?
A: It is done automatically.
B: Once a DMC has failed, the information is unrecoverable.
C: Rotate the EIS DMC switch on the switching panel to replace the failed DMC with DMC #3.

Q 16: Where is information displayed by DMC #1 and DMC#2?
A: DMC#1 supplies data to PFD#1, ND#1, and lower ECAM. DMC #2 supplies data to PFD#2, ND#2, and upper ECAM.
B: DMC#1 supplies data to PFD#1, PFD#2, and upper ECAM. DMC #2 supplies data to ND#1, ND#2, and lower ECAM.
C: DMC#1 supplies data to PFD#1, ND#1, and upper ECAM. DMC #2 supplies data to PFD#2, ND#2, and lower ECAM.
D: DMC#1 supplies data to PFD#1, ND#2, and lower ECAM. DMC #2 supplies data to PFD#2, ND#1, and upper ECAM.
Q 17: If the lower ECAM DU fails, is there a way to retrieve that information?

A: By pressing and holding the related systems page push button on the ECAM control panel, the page will be displayed on the UPPER ECAM.

B: By rotating ECAM/ND XFR switch on switching panel, lower ECAM page will be transferred to either Capt or FO’s ND.

C: Both are correct.

Q 18: If the UPPER ECAM DU fails, what will be displayed on the lower unit?

A: System display page.

B: Engines and Warning page (E/WD)

C: Status page.

Q 19: Weather radar can be displayed in what modes on the ND?

A: ARC and ROSE NAV modes only.

B: ROSE VOR and ROSE ILS modes.

C: ROSE VOR and ROSE ILS modes.

D: All modes except plan.

Q 20: RNAV position information is displayed on the ND in which of the following modes?

A: ARC and ROSE NAV modes only.

B: ROSE VOR and ROSE ILS modes.

C: ARC, ROSE and PLAN modes.

D: ROSE VOR mode.

Q 21: Once the crewmember has completed viewing a specific system, what is the correct procedure for clearing the screen and returning it to a normal presentation?

A: Press the respective system push button again.

B: It goes away by itself

C: Press CLR on the ECAM control panel.

D: Press twice CLR on the ECAM control panel.
Q 22: After the engine shutdown, you observe a pulsing STS message. What does it mean?

A: It is an indication that at least one system requires crew attention.
B: It is an indication that the aircraft has not been shut down correctly.
C: It is a reminder that the status page holds a maintenance message.

Q 23: The upper ECAM Display Unit (DU) has failed. You want to see the DOOR/OXY page. How can you see it?

A: You have to press and hold the DOOR key on the ECP
B: You have to switch the EIS DMC to CAPT3
C: You have to press and hold the RCL key on the ECP.

Q 24: Both ECAM screens have failed. Is it possible to get E/WD indications?

A: Yes, the E/WD is automatically transferred to one of the NDs.
B: No. The E/WD is lost until the aircraft can be repaired.
C: Yes, to get E/WD information. It must be manually transferred to one of the NDs.
D: Yes. E/WD information is automatically transferred to the F/O’s PFD in the event of an ECAM warning.

Q 25: How are the FMAs displayed on the PFD?

A: There are 5 columns and 3 rows.
B: There are 3 columns and 5 rows.
C: There are 3 columns and 2 rows.
D: There are 4 columns and 2 rows.

Q 26: In case of a double FWC failure master caution light, master warning light, aural warnings and ECAM cautions and warnings are lost.

A: True.
B: False.

Q 27: How did the PNF cancel the caution for the NAV ILS 1 FAULT before calling the STATUS page on the ECP?

A: By pressing the EMER CANC pushbutton.
B: By pressing the CLR key
C: By pressing the STS key
D: By pressing the ALL key.
Q 28: How can the ILS 1 FAULT be restored from being a CANCELLED CAUTION?
A: By resetting the appropriate circuit breaker.
B: By pressing and holding any CLR key for more than 3 seconds.
C: By pressing the EMER CAN pushbutton for more than 3 seconds.
D: By pressing and holding the RCL key for more than 3 seconds.

Q 29: VLS is the lowest speed that the autolight system (autopilot or A/THR) will fly the aircraft. This is a dynamic speed corresponding to an Angle Of Attack (AOA).
A: VLS will change with wing configuration change.
B: With speedbrake extension, VLS will increase
C: Above FL200, VLS will provide a 0.2g buffet margin
D: All of the above.

Q 30: The Speed Trend Arrow is a dynamic information displaying the speed to which the aircraft will be in _____.
A: 5 seconds.
B: 8 seconds
C: 10 seconds
D: 13 seconds.

Q 31: Of the three types of EIS displays, which one has the lowest priority?
A: The ND
B: The PFD
C: The SED*
* There is no SED display. If they mean SD then this should have the least priority.

Q 32: As you approach a selected altitude, when will the yellow altitude window start flashing?
A: As you approach within 750 ft of FCU selected altitude and stop when it is within 250 ft.
B: As you approach within 1000 ft of FCU selected altitude and stop when it is within 150 ft.
C: As you approach within 500 ft of FCU selected altitude and stop when it is within 150 ft.
D: As you approach within 900 ft of FCU selected altitude and stop when it is within 200 ft.
Q 33: The Flight Path vector (FPV) represents the lateral and vertical trajectory of the aircraft with respect to the ground. On the lateral scale, it indicates the aircraft’s track. On the vertical scale, it indicates the aircraft’s flight path angle.

A: True.
B: False.

Q 34: When does the Side Stick Order indicator display?

A: After first engine start and disappears when passing 400 feet RA
B: **After first engine start and disappears after rotation**
C: After second engine start and disappears when passing 400 feet RA
D: After second engine start and disappears when passing 400 feet RA

Q 35: When is the ‘Green Dot’ displayed?

A: **Only when flap handle is the zero position.**
B: Only when flap handle is the zero position, above FL80
C: Only when flap handle is the zero position, below FL80
D: Only when flap handle is the zero position, below FL85

Q 36: The green ‘S’ of the speedtape is the Minimum Slat Retraction Speed. It is only displayed when the flap handle position is in position 1.

A: True.
B: False.

Q 37: Is the Side Slip indicator always yellow?

A: Yes.
B: **No, it turns blue when it becomes a beta target (displaying optimum side slip for a given configuration)**
C: No, it turns orange when it becomes a beta target.

Q 38: When will the Flight Director bars flash?

A: When a reversion occurs.
B: When loss of LOC or G/S signal in LAND mode.
C: **All of the above.**
Q 39: The Flight Director bars are out of view when Bank angle exceeds 67°.

A: True
B: False.

* Out of view when bank angle exceeds 45° (and will return when bank is < 40°)

Q 40: The Glide slope index will flash continuously when the deviation exceeds _____ above _____,

A: 1/2 dot below 120 feet RA
B: 1 dot above 100 feet RA
C: 1 dot above 60 ft RA
D: 1/2 dot below 100 feet RA.

* Match 1 and 1

Q 41: When will the PFD Heading tape revert to TRUE heading?

A: North of 73° North or South of 60° South
B: South of 73° North or North of 60° South.
C: North of 80° North or South of 73°South
D: North of 78° North or South of 78°South
Q 42: If the FPV (Flight Path Vector) symbol is right of center, where is the wind coming from?
A: Right.
B: Left.
C: It depends on the Track followed

Q 43: If the FPV is above the horizon line, what is the aircraft actually doing?
A: Descending.
B: Maintaining FL.
C: Climbing.
D: Cannot say.

Q 44: Both LOC and glideslope will flash if, after capture, the signal is lost.
A: True.
B: False.

Q 45: The lower end of a red and black strip along the speed scale defines the VMAX speed.
A: It is the lowest of the following VMO (or MMO), VLE, VFE
B: It is the speed corresponding to the stall warning (VSW)
C: It represents the speed corresponding to the angle of attack at which alpha protection becomes active.

Q 46: The SD displays the Gross Weight (GW) in green as soon as the second engine is started.
A: True.
B: False.
* As soon as the first engine is started.

Q 47: In case of PFDU failure, the PFD image is transferred to the NDU:
A: Manually
B: Automatically
C: Either manually or automatically
D: The PFD image cannot be displayed on the ND.
Q 48: What is the basic role of the DMCs:

A: They compute and elaborate displays
B: Generation of audio warnings
C: Generation of amber warnings
D: Generation of synthetic voice messages

Q 49: Do the Check ATT. Messages appear on both PFDs at the same time?

A: Yes
B: No
C: Message only appears on the EWD
D: Message only appears on ECAM

Q 50: FACs calculate speed trend and VLS. The extremities of the trend vector and V1s segment indicate respectively; speed value at the next 10 seconds and 1.23 Vs 1 g with present configuration. Is this correct?

A: Yes (for both cases)
B: No (for both cases)
C: No because VLS is not 1.23 Vs 1g
D: No because the tip of the speed arrow is not the speed in 10 seconds time

Q 51: With radar selected on, what can you read on ND about antenna setting?

A: Tilt angle
B: Tilt angle and gain mode
C: Roll angle and tilt angle
D: Nothing

Tilt Angle and Gain Mode
- The value of the tilt angle is in degrees, and quarters of a degree. It appears in blue in the lower right-hand corner of the screen. This angle is the angle between the horizon and the radar beam axis.
- "MAN" appears in white, when the manual gain mode is selected.
ELECTRICAL

Q 01: The engine generators and APU generator are rated at _____ KVA.
A: 50
B: 70
C: 90
D: 110

Q 02: The number 1 AC bus channel normally supplies power to _____ and to the _____ bus which supplies power 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

Q 03: The normal priority for supplying electrical power to the AC busses is:
A: External power, engine generators then APU
B: External power, APU, then engine generators
C: APU, external power then engine generators
D: Engine generators, external power then APU

Q 04: 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 tie control relay.
D: DC bus 2 through a DC tie control relay.

Q 05: The A-320 has _______ batteries in its main electrical system.
A: 1
B: 2
C: 3
D: 3 (4 when ETOPS capable)
Q 06: 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
D: BAT1 DC / AC ESS bus / DC ESS

Q 07: An AC ESS FEED switch located on the overhead panel shifts the power source for the AC ESS bus from: 

A: AC bus1 to AC bus 2
B: AC bus 1 to AC Grnd/Flt bus
C: AC bus 2 to AC bus 1

Q 08: 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

Q 09: The RAT is connected directly (mechanically) to the Emergency Generator

A: True
B: False

Q 10: 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

Q 11: 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.
Q 1: Do not depress the IDG DISCONNECT switch for more than _______ to prevent damage to the disconnect mechanism.

A: 3 seconds  
B: 7 seconds  
C: 10 seconds  
D: 15 seconds

Q 13: The IDG Fault light indicates:

A: An IDG oil overheat  
B: IDG low oil pressure.  
C: IDG low oil pressure or IDG oil overheat  
D: IDG has been disconnected

Q 14: 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.

Q 15: 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.

Q 16: Having started 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.
Q 17: 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 than 30 seconds.
B: There is no limitation
C: Never disconnect an IDG in flight, or push the IDG disconnect push button for more than 5 seconds.
D: Never disconnect an IDG unless the engine is running, nor push the IDG disconnect push button for more than 3 seconds.

Q 18: Which voltage requires recharging or replacing the batteries?
A: 20 volts or less.
B: 24 volts or less.
C: **25 volts or less.**
D: 26 volts or less.

Q 19: The APU is supplying the electrical system. What is the order of priority for the different generators?
A: Engines, external power, APU.
B: APU, engines, external power.
C: External power, engines, APU.
D: APU, external power, engines.

Q 20: What is the significance of the green collared circuit breakers?
A: Green collared circuit breakers are pulled when flying on battery power only.
B: **Green collared circuit breakers are monitored by the ECAM.**
C: Green collared circuit breakers are not to be reset.
D: Green collared circuit breakers are AC powered.

Q 21: 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.
Q 22: What is the minimum voltage when conducting a BATTERY CHECK?
A: 28 volts.
B: Less than 60 amps in 10 seconds.
C: Greater than 24 volts.
D: Greater than 25 volts.

Q 23: 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.

Q 24: 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

Q 25: 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.
C: I have to switch the external power to ON and switch the batteries off.
D: I have to start the APU as the batteries can only be charged by the APU generator.

Q 26: 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.

Q 27: 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.
Q 28: 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

Q 29: 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.

Q 30: 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 busses.
C: When selected OFF generator #1 is removed from all busses but continues to power one fuel pump in each wing.

Q 31: 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 restowed.
C: Eng gen #1 continues to power AC bus #1 and downstream systems. The APU powers AC bus #2 and downstream systems.

Q 32: 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.

Q 33: During the five seconds it takes for the RAT to extend:
A: The BATTERIES power both BATT HOT busses, ESS 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.
Q 34: 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.

Q 35: When will the RAT & EMER GEN red FAULT light illuminate?

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.

Q 36: 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.
D: They are mainly AC powered.

Q 37: 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.

Q 38: 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.
Q 39: On the cockpit overhead panel, there is a three position 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 light.

Q 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.

Q 41: The emergency generator supplies power as long as:

A: The landing gear is down.
B: The RAT is deployed
C: The RAT is deployed and the landing gear is down
D: The landing gear is up*

* This question and some others that relate landing gears with electrical emergency configuration and emergency generator are for older models in which RAT stalls with gears down. This is not the case with later models.

Q 42: Which radios are inoperative with gear extension while in the emergency electrical configuration?

A: DME 1 and transponder 1 *
B: DME 1, DDRMI, and transponder 1.
C: DME, and transponder 1.
D: ILS 2, DME, and ADF.

* This question and some others that relate landing gears with electrical emergency configuration and emergency generator are for older models in which RAT stalls with gears down. This is not the case with later models.
Q 43: 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.

Q 44: 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.

Q 45: 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

Q 46: 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, it is not possible.

Q 47: 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.
Q 48: 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

Q 50: 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.

Q 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.

Q 52: Is it possible to determine the source of power for aircraft busses

A: It is indicated on the electrical schematic overhead.

B: No it is not possible.

C: Yes, press the ECAM ELEC push button and view the electrical schematic on the ECAM

D: Only when operating in the Emergency Electrical Configuration.

Q 53: 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 and 45 minutes.

Q 54: The GALLEY FAULT light illuminates when any generator is exceeding 80% of its rated output.

A: True.

B: **False.**
Q 55: 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.

* B marked correct in question banks. No clue about this one as it relates to older models that associate landing gears with electrical emergency configuration and emergency generator in which RAT stalls with gears down.

Q 56: 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.

Q 57: While operating on Emergency Electrical Power (EMER 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.

Q 58: 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: It is a reminder that the main galley has been shed automatically following the loss of one generator.

Q 59: 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 ESS AC SHED.

B: 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 SHED.
Q 6: 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.

Q 61: 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 ELEC EMER CONFIG.
D: The RAT has failed, you have to try to reconnect both IDG’s.

Q 62: When are the Essential Shed buses powered by the 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

Q 63: The AC Essential bus is powered by the battery at speed above 50 kt.

A: True.
B: False.

Q 64: In normal electrical configuration, how is DC ESS bus supplied:

A: From TR 1 via DC Bus 1 and DC Bat Bus
B: From ESS TR
C: From TR 2
D: From Bat 2

Q 65: What happens in case of total loss of main generators?

A: The RAT is automatically extended and powers the yellow system which drives the emergency generator
B: The RAT is automatically extended and powers the blue system which drives the emergency generator
C: The RAT has to be manually extended
D: The RAT is extended and mechanically connected to the emergency generator.
Q 66: DC Bat Bus can be supplied by:
A: DC Bus 1 or batteries
B: DC Bus 1, DC Bus 2 or batteries
C: DC Bus 2 or batteries
D: DC Bus 1 only

Q 67: Normal minimum battery voltage before APU start is:
A: No minimum
B: 27.5 Volts
C: 25.5 Volts
D: 22.5 Volts

Q 68: When disconnecting the IDG the button should be pressed:
A: For no more than 5 seconds
B: Until the fault light goes out
C: For longer than 3 seconds
D: For no more than 3 seconds

Q 69: Where can the battery voltage be checked?
A: On the ECAM elec. Page only
B: On the elec. overhead panel and ECAM E/WD
C: On the elec. overhead panel only
D: On the elec. overhead panel and ECAM elec. Page

Q 70: In flight on batteries only, the AC ESS Shed bus and DC ESS Shed bus are lost.
A: Yes
B: No
C: Only A/C ESS Shed Bus is lost
D: Only D/C ESS Shed Bus is lost
Q 71: The static inverter works:

A: Always

**B: When aircraft speed is > 50 kt and on batteries only**

C: When one main generator fails

D: Only when generator 2 fails

Q 72: If a TR fails:

**A: The other TR automatically replaces the faulty one and the ESS TR supplies the DC Ess Bus**

B: The static inverter replaces the faulty TR

C: The DC Bus on the faulty side is lost

D: The Emergency generator supplies DC power on the faulty side.

Q 73: In flight in case of loss of all main generators, emergency generator not running, the DC ESS Bus is supplied by:

**A: Hot bus 2**

B: ESS TR

C: Hot Bus and ESS TR

D: Hot Bus 1

Q 74: If AC Bus 1 fails the AC ESS bus is supplied by:

A: Emer Gen.

B: The RAT

C: Static Inverter

**D: AC Bus 2**
Q 01: 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.

Q 02: If BMC1 fails BMC2 takes over all monitoring functions except:
A: Engine 1 and APU leak detection.
B: Overheat detection.
C: Automatic cross-bleed valve control.

Q 03: Bleed air normally comes from the _______ of the engine.
A: High pressure stage.
B: Intermediate stage.
C: Low pressure stage.

Q 04: 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 ovhd panel.

Q 05: The pressure regulating and shutoff valve will close if _______ pressure is _______ or _______ airflow occurs
A: Downstream / low / reverse
B: Downstream / High / reverse
C: Upstream / low / reverse

Q 06: The crossbleed valve has two electric motors; one for the automatic mode and one for the manual mode:
A: True
B: False
Q 07: The overheat detection system uses a single loop for:

A: The pylons and APU.
B: The wings and pylons.
C: The wings and fuselage.

Q 08: The APU BLEED FAULT light illuminates amber for an APU:

A: Overheat.
B: Malfunction.
C: Bleed leak.

Q 09: 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.

Q 10: 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.

Q 11: Temperature regulation for the A320 is controlled by:

A: One zone controller and two pack controllers.
B: Two pack controllers and the BMC’s.
C: The BMC’s

Q 12: Should both channels fail in a zone controller:

A: Temperature optimization is still available for that zone from another controller.
B: Temperature optimization and the backup mode are lost.
C: The pack is not affected.
Q 13: The lavatory/galley extract fan operates:
A: Only on the ground.
B: Only in flight.
C: Continuously when electrical power is available.

Q 14: 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.

Q 15: 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.

Q 16: 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

Q 17: How many motors are available for the outflow valve?
A: 1
B: 2
C: 3

Q 18: 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.
Q 19: The maximum cabin descent rate is limited in automatic to:

A: 300 ft/min.

B: **750 ft/min.**

C: 1000 ft/min.

Q 20: 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.**

Q 21: When the cabin vertical speed exceeds _______ fpm; the vertical speed display on ECAM _______.

A: 800 / flashes green

B: 2800 / flashes green

C: **1800 / flashes green**

Q 22: The pneumatic system supplies high pressure air for:

A: Air Conditioning, water pressurization and engine starting

B: Wing anti-icing.

C: Hydraulic reservoir pressurization.

D: **All of the above.**

Q 23: High pressure air has ______ sources.

A: 2

B: **3**

C: 4

D: 5

* *Engine bleed systems, APU load compressor and HP ground connection.*
Q 24: With both engines operating, an ENG BLEED pb FAULT light will illuminate when:

A: The valve position differs from that of the push button.
B: The X BLEED selector is selected to SHUT.
C: The X BLEED selector is selected to OPEN.
D: The X BLEED selector is selected to OPEN or to SHUT.

Q 25: Air bleed from the engines is:

A: Not cooled prior to being used by the systems.
B: Cooled in a heat exchanger by cooling air bleed from Fan section.
C: Cooled using ambient air.
D: Only cooled in air conditioning part.

Q 26: If a Bleed Monitoring Computer (BMC) fails:

A: All systems associated with the failed BMC also fail.
B: The associated bleed valves close.
C: The remaining BMC will automatically assume most of the failed BMC's functions.

Q 27: A leak detection system detects any overheating in the vicinity of hot air ducts.

A: True.
B: False.

Q 28: When engine and wing anti-ice are in use, and a BMC detects a bleed leak:

A: Only the engine anti-ice on the associated side will be lost.
B: The wing and engine anti-ice on the associated side will be lost.
C: The wing anti-ice on the associated side will be lost, and the engine anti-ice on the associated side will continue to function.
Q 29: Each bleed valve is electrically operated and controlled pneumatically by its associated BMC.

A: True.

B: False.

Q 30: If a BMC detects a bleed leak:

A: The crew must isolate the affected leak.

B: All valves that could supply pneumatic air to the area of the bleed leak will automatically close.

C: All pneumatic valves close automatically.

Q 31: If one BMC fails, the adjacent BMC takes over the monitoring of the bleed system to issue the following ECAM warnings if necessary:

A: Overpressure

B: Overtemperature

C: Wing leak

D: All of the above.

Q 32: Bleed leak protection for the APU pneumatic duct is provided by:

A: Detection loops associated with BMC #1.

B: Detection loops associated with BMC #2.

C: The APU BMC.

D: All of the above.

Q 33: With the loss of pneumatic system pressure, the engine bleed valve will:

A: Remain in its current position.

B: Assume the mid position.

C: Assume the open position.

D: Assume the closed position.

Q 34: Pneumatic system operation is controlled and monitored by:

A: One bleed monitoring computer.

B: Two bleed valve computers.

C: Two bleed monitoring computers.
Q 35: ECAM BLEED page: when is the GND symbol displayed?

A: Whenever the aircraft is on the ground.
B: All the time.
C: Only when a ground air supply is connected.

Q 36: In automatic mode, the crossbleed valve opens when the system is using APU bleed air.

A: It closes if the system detects an air leak (except during engine start).
B: It closes if the system detects an air leak (except in flight).
C: It closes automatically if the system detects an air leak.

Q 37: What happens when pressure and temperature are not sufficient to supply the corresponding engine bleed valve?

A: HP valve closes.
B: HP valve opens, if stage closed.
C: HP valve opens, IP stage remains in the same configuration.

Q 38: When additional pneumatic air is required for anti-ice, engine starting, or air conditioning:

A: Additional pneumatic air will be requested by the BMC to the FADECs or the APU.
B: The crew must observe minimum N1 limits.
C: Both are correct.

Q 39: When selected, APU bleed air:

A: Will supply bleed air only if the ENG BLEED pb’s are selected OFF.
B: Has priority over engine bleed air.
C: Will supply bleed air only if the X BLEED selector is selected OPEN.
D: Does not have priority over engine bleed air.

Q 40: 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 the 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.
Q 41: Which source controls the crossbleed valve?
A: Pneumatic.
B: Electric.

Q 42: The crew may directly control the following bleed valves:
A: Engine, engine high pressure, APU.
B: Engine, intermediate pressure, APU.
C: Engine, APU, crossbleed.
D: Crossbleed.

Q 43: APU bleed air supplies the pneumatic system if the APU speed is above _____:
A: 80%
B: 85%
C: 92%
D: 95%

Q 44: A check valve near the crossbleed duct protects the APU when bleed air comes from another source:
A: True.
B: False.

Q 45: Temperature regulation is achieved by the precooler which regulates and limits the temperature at:
A: 150°C
B: 85°C
C: 60°C
D: 200°C
Q 01: Refueling is possible if the aircraft batteries are the only source of power.

A: True

B: False

Q 02: 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.

Q 03: 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

Q 04: 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.

Q 05: 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.
Q 06: The fuel quantity indication on ECAM for the outer cell is boxed amber if:
A: One transfer valve fails to open.
B: Outer cell fuel temperature is high.
C: **Both transfer valves fail to open when inner cell is at low level.**

Q 07: 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.

Q 08: The fuel crossfeed valve is controlled by 2 motors.
A: True
B: False

Q 09: Which of the following would cause the fault light to illuminate on the MODE SEL push button?
A: **Fuel is being burned out of sequence.**
B: Crossfeed push button is ON.
C: Center tank pumps do not stop after slat extension.
D: Center tank pumps do not stop 5 min after center tank low level reached.

Q 10: 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.

Q 11: 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.
Q 12: Center tank pumps do not stop 5 min after center tank low level reached.
A: Yes, only on the refueling panel.
B: It is not possible to determine their position
C: Only on the ECAM Fuel page.

Q 13: 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.

Q 14: What does an amber line across the last two digits of the fuel quantity mean?
A: The fuel quantity indication is inaccurate.
B: The fuel quality is not good and should be checked.
C: A disagreement between fuel measured and fuel entered on the MCDU has been detected.
D: Not all the fuel aboard is useable.

Q 15: The APU fuel system:
A: Uses its own dedicated DC powered fuel pump.
B: Obtains fuel from either center tank pump.
C: Obtains fuel from the left fuel manifold via the left side fuel pumps or if needed, the APU fuel pump.
D: Obtains fuel from the left fuel manifold via the right side fuel pumps.

Q 16: 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.

Q 17: The AC powered auxiliary fuel boost pump for the APU operates whenever the APU is operating and no other pump is on. It has an alternate power source on the AC Static Inverter bus for battery-only starts.
A: True.
B: False.
Q 18: 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.

Q 19: The message OUTER TK FUEL XFRD appears in the MEMO. What does this mean?

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.

Q 20: 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 refueling.

D: Automatically close if a low level is sensed in either main wing tank, they automatically close at the next fueling.

Q 21: 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: Dumping 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 (feeding segregation)**

D: During takeoff, the center tank fuel is gravity fed only.

Q 22: What precaution should you observe when gravity feeding fuel?

A: **Operate the aircraft below 15,000 feet.**

B: Use center tank first.

C: Open the crossfeed when above FL250

D: No precautions are necessary.
Q 23: Refueling time at normal pump pressure is _____ minutes for the wing tanks and _____ minutes for all tanks.
A: 15 & 25.
B: **17 & 20.**
C: 15 & 20.
D: 25 & 35.

Q 24: 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 refueling.**

Q 25: 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.

Q 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.**

Q 27: What is the minimum fuel quantity for takeoff?
A: 1,000 kg
B: 1,200 kg.
C: **1,500 kg**
D: 2,000 kg
ICE AND RAIN PROTECTION

Q 01: The ______ on each wing are anti-iced with pneumatic bleed air.
A: Slats
B: Flaps
C: Three outboard slats

Q 02: Electrical heating is provided for the protection of:
A: Pitots and Angle Of Attack (AOA) probes
B: Pitots, static ports and TAT probes
C: Pitots, static ports, AOA probes, and TAT probes.
D: Pitots and static ports

Q 03: When a pneumatic leak is detected, the wing anti-ice valves:
A: Close automatically.
B: Open automatically.
C: Remain in position.

Q 04: When either engine anti-ice valve is open:
A: Maximum N1 is increased.
B: Minimum idle rpm is increased.
C: Minimum idle rpm is reduced.

Q 05: Window heat operates at what power level in flight?
A: Low
B: High

Q 06: 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”.
Q 07: 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 *

* Probe heat comes on automatically when at least one engine is running, or when the aircraft is in flight. Manually, when PROBE/WINDOW HEAT pb is ON. On ground, TAT probes are not heated and pitot heating operates at a low level.

Q 08: 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 *

* Window heating comes on automatically when at least one engine is running, or when the aircraft is in flight. Manually, when PROBE/WINDOW HEAT pb is ON. Windshield heating operates at low power on the ground and at normal power in flight. Only one heating level exists for the windows.

Q 09: The drain masts are heated after first engine start.

A: True.

B: False *

* Drain masts are heated when electrical system is powered. Low level on ground and high level in flight.

Q 10: Where do the wing anti-ice indications appear on ECAM?

A: There is no indication on ECAM bleed page for wing anti-ice

B: An amber triangle appears on the ECAM bleed page

C: WING A.ICE appears on ECAM status page.

D: ANTI-ICE appears in white on the ECAM bleed page and W A.ICE appears in green on the ECAM memo when the wing P/B is pressed

Q 11: The Fault light on the engine anti-ice switches indicates the valve:

A: Is closed.

B: Position disagrees with switch position.

C: Is open.
Q 12: 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 overheating.

Q 13: If one engine anti-ice system fails, the second one takes over and provides anti-icing for both engines.

A: True.

B: False.

Q 14: What happens when either engine anti-ice is open?

A: Maximum N1 is limited, continuous ignition is provided, maximum idle RPM is increased.

B: Maximum N1 is limited, continuous ignition is provided, minimum RPM is increased.

C: Minimum N1 is limited, continuous ignition is provided, minimum idle RPM is increased.

When an engine anti-ice valve is open, the N1 or EPR limit is automatically reduced and, if necessary, the idle N1 or EPR is automatically increased for both engines in order to provide the required pressure.

Q 15: In the event of loss of electrical supply the engine anti-ice valve:

A: Opens when the engine is shut down.

B: Closes when the engine is running.

C: Opens when the engine is running.

D: Open when the OAT is < 10 deg.C with the engine running.

Q 16: 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.
Q 17: What is the speed limit to operate the windscreen wipers?
A: 185 kts.
B: 200 kts.
C: **230 kts.**
D: 250 kts.

Q 18: 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.

Q 19: 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.

Q 20: What happens to engine RPM when either engine anti-ice valve is open?
A: There is a fixed RPM increase.
B: The N1 limit for that engine is automatically increased.
C: **The N1 limit for that engine is automatically reduced**
D: There is a fixed RPM increase (3% of nominal N1)

Q 21: 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.**
Q 22: Rain protection is provided by:
A: Warm bleed air blowing across the windshield.
B: Rain repellent and Windshield wipers.
C: Both are correct.

Q 23: 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.

Q 24: Anti-ice and de-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.

Q 25: The probe heaters can be activated manually prior to engine start by placing the PROBE/WINDOW HEAT pushbutton.
A: True.
B: False.

Q 26: What happens to the heat at the drain masts when the aircraft is on the ground?
A: Nothing.
B: The heat is reduced to prevent injury to ground personnel.
C: Some of them are automatically switched off (pitot, AOA).

Q 27: The RAIN RPLNT (rain repellent) pushbutton is inhibited on the ground when the engines stopped.
A: True.
B: False.

Q 28: TAT probes are heated on the ground.
A: True.
B: False.
Q 29: The ON light illuminates on the wing anti-ice P/B:
A: When the anti-ice valves open
B: When the P/B is set to ON
C: When the fault light goes out
D: When the anti-ice valves open and the fault light goes out.

![ON light comes on blue.]
WING A ICE appears on the ECAM MEMO page.
Wing anti ice control valves open if a pneumatic supply is available.
On the ground the wing anti-icing control valves open for 30 s only (test sequence).

Q 30: How is window heating regulated?
A: Manually by flight crew
B: Window heat is not regulated!
C: One Window Heat Computer (WHC) as master, the other as slave
D: By two independent Window Heat Computers (WHC), one for each side

Q 31: The Window Heat Computer provides two power levels for the windshield:
A: High power when above 20,000 ft, low power when below 20,000 ft
B: High power when OAT < 10 deg.C, low power when OAT > 10 deg.C
C: High power in flight, low power on the ground
D: High power in icing conditions (flight only), low power in other conditions.

Q 32: The engine nacelle is anti-iced by:
A: Air bleed from the high pressure compressor
B: Air bleed from low pressure compressor
C: AC system and air bleed from low pressure compressor
D: DC system and air bleed from low pressure compressor.

Q 33: When an engine anti-ice valve is open:
A: N1 limit is automatically reduced and the idle N1 is automatically increased
B: N2 of the associated engine is automatically decreased
C: N2 limit is automatically reduced and N1 limit is automatically increased
D: There is no change in the N1 and N2 limits.
Q 34: In the event of a low air pressure:
A: The engine anti-ice valve opens automatically
B: There is no effect on the anti-ice valve position
C: The engine anti-ice valve must be manually closed
D: The engine anti-ice valve closes automatically

Q 35: How can you check that engine anti-ice has been selected on?
A: You can observe the ON light on the associated engine anti-ice P/B and the ENGINE ANTI-ICE message on the ECAM engine page
B: You can observe the amber warning on the ECAM memo display and the amber anti-ice light on the overhead panel
C: You can observe the ENGINE ANTI-ICE message on the ECAM STATUS page
D: You can observe the blue ON light on the associated engine anti-ice P/B and the ENGINE ANTI-ICE memo on the E/WD

Q 36: The electric windshield wipers are controlled:
A: Automatically when in heavy rain
B: By two individual pushbuttons
C: By one rotary selector for both windshields
D: By two individual rotary selectors

Q 37: The wipers can operate at different speeds:
A: Low speed and high speed
B: Speed 1 and speed 2
C: Low, medium and high speed.
D: Speed is automatically adjusted depending on rain intensity.

Q 38: When the wiper is turned off:
A: The PARK position must be selected to stow the wiper
B: It continues to run for approximately 6 seconds
C: The wiper may stop in the pilots view
D: The wiper stops out of view
Q 01: Fluid can be transferred between hydraulic systems.
A: True
B: False

Q 02: Which hydraulic systems have engine driven pumps?
A: Green and blue.
B: Green and yellow.
C: Blue and yellow.

Q 03: The Load Alleviation Function (LAF) accumulators are pressurized by which hydraulic systems?
A: Green and blue.
B: Green and yellow.
C: Blue and yellow.

Q 04: The RAT pressurizes the Blue hydraulic system to approximately _____ psi.
A: 1500
B: 2500
C: 3000
D: 3500

Q 05: How many pumps has the yellow system to provide pressure (not counting the PTU)?
A: 1
B: 2
C: 3
D: 4
Q 06: The hand pump supplies yellow system pressure to the:
A: Normal brakes.
B: Alternate brakes
C: Passenger doors.
D: Cargo doors.

Q 07: 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

Q 08: 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.

Q 09: 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.

Q 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.

Q 11: The PUMP identification number on the ECAM HYD page becomes amber when:
A: System pressure is below 1450 psi.
B: N2 is below idle.
C: The reservoir level is low.
Q 12: The _____ hydraulic system provides power for gear extension/retraction.
A: Yellow.
B: Blue
C: Green

Q 13: 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

Q 14: Autobraking is initiated by:
A: Strut compression.
B: Reverser action.
C: Ground spoiler extension command.

Q 15: 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.

Q 16: The maximum degrees of nosewheel steering available when using the handwheel is ______.
A: +/- 60
B: +/- 75
C: +/- 95
D: +/- 105
Q 17: 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

Q 18: The brakes pressure indication on TRIPLE PRESSURE INDICATOR reads which system pressure?

A: Yellow
B: Blue
C: Green

Q 19: 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

Q 20: The aircraft’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: Two electric pumps and two engine driven pumps.

Q 21: 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.
Q 22: What are the major equipment losses with loss of Green system?
A: Speed Brakes.
B: Nosewheel steering, Autobrakes *
C: Alternate Brakes.
D: The upper and lower rudders.
* These are the earlier models that have NWS on the green system unlike later models that have it on the yellow.

Q 23: The hydraulic PTU will activate if:
A: A significant pressure loss occurs in any of the three hydraulic systems.
B: A significant pressure loss occurs in the green or yellow hydraulic system.
C: Both are correct.

Q 24: After extending the RAT, is it possible to check its 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: Yes, select the ECAM HYD page.
D: No. It is not possible.

Q 25: The RAT is capable of powering a pump which will pressurize:
A: Only the blue system.
B: All systems.
C: The blue and yellow system.
D: The blue and green system.

Q 26: How is the yellow hydraulic system pressurized?
A: An engine driven pump, an electric pump, the PTU using the green system and, for the cargo doors only, a hand pump.
B: An engine driven pump, electric pump, the PTU using the blue system and, for the cargo doors only, a hand pump.
C: An engine driven pump, an electric pump, and the PTU using the green system.
Q 27: When will normal operation of the BLUE system hydraulic pump begin?

A: During the first engine start.
B: When the first engine MASTER switch is moved to the ON position.
C: Only when the RAT is deployed.
D: After both engines are started.

Q 28: The PTU comes into action automatically when the differential pressure between the GREEN and the YELLOW systems is greater than ______ psi.

A: 300.
B: 500.
C: 650.
D: 700.

Q 29: When will the yellow system electric pump operate? (AC power is available)

A: During the second engine start.
B: When the yellow electric system ELEC PUMP push button is selected to ON or the ground crew activates a cargo door switch.
C: If any N2 RPM is less than 45%.
D: When the first engine MASTER switch is moved to the ON position.

Q 30: What is the normal pressure in the hydraulic system?

A: 500 psi.
B: 1,000 psi.
C: 3,000 psi.
D: 2,000 psi.

Q 31: You are at the gate. You have started engine #2. Before starting engine #1, you notice that the PTU test has not been activated. Is it normal?

A: No. You have to call the mechanics.
B: The PTU has been shut off.
C: The PTU will not work until the second engine has been started.
Q 32: You get a G RSVR OVHT message. Why does the ECAM procedure ask you to switch the PTU off first?

A: To prevent the hot hydraulic fluid from being transferred to the YELLOW system.
B: To depressurize the YELLOW and GREEN systems.
C: To prevent the BLUE system from pressurizing the GREEN system.
D: To prevent the PTU from pressurizing the GREEN system

Q 33: 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.

Q 34: What does the RAT MAN ON switch do?

A: Extends RAT, pressurizes BLUE system, starts Emergency Generator.
B: Extends RAT, must push RAT MAN ON again to pressurize BLUE system.
C: Extends RAT, pressurizes GREEN system, starts Emergency Generator.
D: Extends RAT, pressurizes BLUE system, does not start Emergency Generator.

Q 35: Describe the PTU status with a green system reservoir overheat, low pressure or low fluid level.

A: The PTU will be inhibited
B: The crew must select the PTU ON.
C: The PTU fault light will remain illuminated as long as the problem exists. The PTU should be selected OFF.
D: The crew must select the PTU OFF then ON

Q 36: During engine start up, when is the BLUE hydraulic system pressurized?

A: As soon as the PTU is turned on.
B: As soon as the BLUE electric pump is manually turned on.
C: Automatically after first engine start.
D: As soon as the engine master switch is set to IGN/START
Q 37: If you lost the GREEN system, what equipment is lost?
A: Reverser 1 and gear retraction.
B: **Reverser 1, gear retraction and nose wheel steering** *
C: Reverser 2, gear retraction, cargo doors and nose wheel steering.
D: Reverser 2 and gear retraction.
* These are the earlier models that have NWS on the green system unlike later models that have it on the yellow.

Q 38: Crew members can use a hand pump to pressurize the YELLOW system in order to operate the cargo doors when no electrical power is available.
A: True.
B: False.

Q 39: If you lost the YELLOW system, what equipment is lost?
A: Reverser 2
B: Parking brake accumulator recharging
C: Cargo door.
D: **All of the above.**

Q 40: On the hydraulic quantity indicator what does the amber level indicate?
A: The warning level.
B: The reservoir contents
C: The normal filling level
D: The temperature of the hydraulic fluid.

Q 41: What does a PTU FAULT light indicate?
A: GREEN or YELLOW reservoir overheat.
B: GREEN or YELLOW reservoir low air pressure.
C: GREEN or YELLOW reservoir low level.
D: **All of the above.**
Q 42: If you lost the BLUE system, what equipment is lost?

A: The Emergency generator.
B: Cargo door
C: Nose wheel steering.
D: All of the above.

Q 43: All hydraulic systems have a fire shutoff valve.

A: True.
B: False.

Q 44: What is the signification of an amber RAT indicator (ECAM HYD page)?

A: The RAT is incorrectly stowed.
B: The RAT is not stowed.
C: Pressure for stowing the RAT has been applied, or the RAT pump is not available.

Q 45: How can the pilot switch off the Fire Shut Off Valves?

A: By de-pressing the Hydraulic Shut Off Switches.
B: By selecting the Hydraulic Valve Switch to the “Closed” position
C: By de-pressing the Engine Fire Switches
Q 01: To start the APU the:

A: BAT 1 and 2 push buttons must be selected to ON *

B: BAT 1 and 2 push buttons do not need to be selected ON if external power is available.

C: Both are correct.

* Read an interesting discussion on this topic: https://www.pprune.org/engineers-technicians/487467-a320-apu-2.html

Q 02: 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.

Q 03: When the APU Master Switch is released, a normal APU shutdown occurs:

A: Without delay in all cases.

B: With a delay, in all cases.

C: With a delay if the bleed air was in use.

Q 04: 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.

Q 05: The APU has an integral independent lubrication system for lubrication and cooling.

A: True.

B: False.

Q 06: The ECB (Electronic Control Box) controls the fuel flow.

A: True.

B: False.
Q 07: 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.

Q 08: 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.

FAULT It: Depending on version of the ECB, this amber light comes on, and a caution appears on ECAM, when an automatic APU shutdown occurs, which can happen in case of:

- Fire (on ground only)
- Air inlet flap closed
- Overspeed
- No acceleration
- Slow start
- EGT overtemperature
- No flame
- Reverse flow
- Low oil pressure
- High oil temperature
- DC power lost (BAT OFF when aircraft on batteries only)
- Overcurrent
- Sensor failure
- IGV failure
- ECB failure
- No speed
- Underspeed
- Loss of overspeed protection
- Oil system shutdown
- Inlet overheat
- Clogged oil filter
- Loss of EGT thermocouples

Q 09: Will the APU bleed valve close automatically during climb? Will it reopen during descent?

A: Yes
B: No
Q 10: The APU system page will appear on the ECAM:

A: When selected by the crew.
B: Automatically whenever the APU is started and AC power is available.
C: Both are correct.

Q 11: If APU bleed was used, after a manual shut down sequence, the APU:

A: Stops immediately
B: Keeps running for 4 minutes
C: Keeps running for 2 minutes *
D: Keeps running for 60 seconds

* Perhaps option C is not correct because it does not have to keep running for 2 minutes as that’s just a possibility (i.e. 60-120 secs) whereas it will certainly keep running for at least 60 seconds.

Q 12: 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

Q 13: 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.
Q 14: 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

Q 15: 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.

Q 16: 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.

Q 17: 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**

Q 18: Fire on ground or in flight will cause the APU MASTER SW pushbutton FAULT light to come on.
A: True.
B: False.

**FAULT It:** Depending on version of the ECB, this amber light comes on, and a caution appears on ECAM, **when an automatic APU shutdown occurs, which can happen in case of:**

**Fire (on ground only)**
Q 19: 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.

Q 20: The starter engages if the air intake is closed and the MASTER SW and the START pushbuttons are ON.
A: True.
B: False.

Q 21: A FLAP OPEN indication is displayed in amber when the APU air inlet flaps is fully open
A: True
B: False

Q 22: 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.

Q 23: The APU cannot be shut down from outside the aircraft.
A: True.
B: False.

Q 24: 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.

* B and C are incorrect because of including “High Oil Pressure” and items in A are correct but D has more correct items.
Q 25: Maximum altitude for APU bleed operation is:
A: 15,000 ft
B: 18,000 ft
C: **20,000 ft**
D: 22,000 ft

Q 26: Can the APU FIRE test be performed with the APU running?
A: Yes
B: No

*Automatic shutdown of APU on ground will not occur while crew is performing this test.*

Q 27: The APU is supplied from the:
A: Left fuel feed line.
B: Right fuel feed line.
C: Left or right fuel line

Q 28: 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.

Q 29: On ground, can you start the APU using the aircraft batteries only?
A: Yes
B: No

Q 30: When starting the APU, the FUEL LO PR indication appears amber when an APU fuel low pressure is detected.
A: True
B: False
Q 31: The LOW OIL LEVEL advisory pulses in ____ if the APU oil quantity approaches its minimum value.
A: Amber
B: White
C: Red
D: Green

Q 32: If an APU start is initiated on battery power only, is fire protection available?
A: Yes
B: No

Q 33: With battery power only, what would an APU fire test look like?
A: APU FIRE pb illuminated and SQUIB + DISCH lights illuminated
B: APU FIRE pb illuminated
C: SQUIB + DISCH lights illuminated

Q 34: What is the maximum operating altitude of the APU?
A: 25,000 feet
B: 30,000 feet
C: 35,000 feet
D: 39,000 feet

Q 35: How many APU fire extinguisher bottles are installed?
A: One
B: Two
C: One AC operated and one DC operated
Q 01: 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.

Q 02: The FADEC is normally powered by:
A: The RAT
B: Its own magnetic alternator
C: The normal aircraft electrical system

Q 03: 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
* ECAM engine page is displayed with the mode selector.

Q 04: 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.

Q 05: 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.
Q 06: Continuous ignition is automatically provided during the following:

A: Flex or TO/GA thrust is selected on the ground.
B: ENG ANTI ICE switch is ON
C: Engine surge on stall occurs in flight.

D: Any of the above *

* While most question banks mark D as correct, unable to find in FCOM that in these conditions the ignition comes on automatically. If there is a reference please share.

Q 07: If a throttle is set between two detents; the FADEC selects the rating limit:

A: Determined by the throttle position.
B: **Corresponding to the higher mode.**
C: Corresponding to the lower mode.

Q 08: 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.

Q 09: A/THR engagement is confirmed when “A/THR” is displayed in ______ in the right column of the FMA.

A: Green
B: Blue
C: **White**
Q 10: 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

Q 11: 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.**

Q 12: 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.

Q 13: 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.

Q 14: 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.
Q 15: 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 start valve air pressure has dropped.

D: That there is a start fault and a dry crank is in progress.

Q 16: 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.

Q 17: How many FADEC’s are installed in the aircraft?

A: 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.

Q 18: 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.

Q 19: 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.

Q 20: 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.
Q 21: 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.

Q 22: 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.

Q 23: 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.

Q 24: 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.

Q 25: 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.

Q 26: 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.
Q 27: 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.

Q 28: 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.

* Some question banks have marked C as correct. The FCOM does not use the variable and fixed terminology. It’s probably used in the CBT.

<table>
<thead>
<tr>
<th>A/THR in THRUST mode</th>
<th>AP/FD pitch mode maintains the speed:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OP CLB - OP DES - CLB - EXP CLB -EXP DES - SRS - FLARE and DES (IDLE path)</td>
</tr>
<tr>
<td>A/THR in SPEED/MACH mode</td>
<td>If neither AP nor FD is engaged</td>
</tr>
<tr>
<td></td>
<td>If AP/FD controls a vertical path:</td>
</tr>
<tr>
<td></td>
<td>V/S - FPA - ALT* - ALT CST* - ALT - ALT CRZ - G/S* - G/S - FINAL and DES</td>
</tr>
<tr>
<td></td>
<td>(geometric path)</td>
</tr>
<tr>
<td>A/THR in RETARD mode</td>
<td>AP/FD engaged in LAND mode during an automatic landing</td>
</tr>
</tbody>
</table>

Q 29: 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.

Q 30: 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.**
Q 31: Is any thrust lever action required if an engine failed at rotation while using FLEX takeoff power?

A: Yes.

B: No.

Q 32: When does oil quantity indication begin to pulse?

A: Decreasing below 5 qts.

B: During engine start.

C: Oil quantity detector or pressure fault.

Q 33: 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.

Q 34: Auto Thrust System: When are the throttles in the engagement range?

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.

Q 35: The idle setting on the aircraft is capable of modulating due to certain conditions. During descent, what might cause the IDLE N1 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.

Q 36: 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.
Q 37: 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

Q 38: 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.

Q 39: 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.

Q 40: 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: “A/THR” 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.

Q 41: 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 upper ECAM.  
B: False. For safety reasons, it always selects the rating limit corresponding to the lower limit.
Q 42: What would happen during the takeoff roll if the thrust levers were set to the FLX/MCT 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.

Q 43: What abnormals 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.

Q 44: 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.

Q 45: 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.

Q 46: 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.
Q 47: 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.

Q 48: 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.

Q 49: 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

Q 50: After takeoff 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 FLEX/MCT detents.

C: The autopilot is engaged.

D: The A/THR pushbutton is manually selected ON.

Q 51: 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.
Q 52: 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.

Q 53: 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.

Q 54: 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.

Q 55: 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/WD.
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.

Q 56: Each FADEC is a dual channel (A&B) computer providing full engine management.
A: True.
B: False.

Q 57: 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.
Q 58: 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.

Q 59: How is manual arming 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 FLX/MCT detent with at least one Flight Director (FD) on.

The flight crew arma A/THR:
- On ground
  • By pushing the A/THR pb on the FCU when the engines are not running, or
  • By setting the thrust levers at the FLX or TOGA detent when the engines are running.

Q 60: You are at the start of a descent and a blue N1 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.

Q 61: 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.

Q 62: 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.
Q 63: 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.

Q 64: 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)
Q 01: Which hydraulic system(s) supply pressure to the landing gear system?

A: Green
B: Blue
C: Yellow and Blue
D: Green and Blue.

Q 02: The braking modes are:

A: Green with anti-skid, Yellow without anti-skid, Parking brake.
B: Green or Yellow with anti-skid, Yellow without anti-skid, parking brake
C: Green with or without anti-skid, Blue without anti-ski

Q 03: 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.

Q 04: 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.

Q 05: 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.
Q 06: 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.

Q 07: Landing Gear position is indicated by:
A: One panel on center instrument panel, one panel on overhead panel
B: ECAM only
C: One panel on center instrument panel and ECAM
D: One panel on center instrument panel, ECAM, visual means on the wing.

Q 08: 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.

Q 09: Landing gear operation is inhibited at speeds:
A: Below 100 knots.
B: Above 260 knots +/- 5 knots.
C: below 100 knots and above 260 knots.
D: Above 250 knots.

Q 10: Can the gear be extended above 260 kts if necessary?
A: Never.
B: Yes, but only manually
C: Yes, but the ultimate limit is 285 kt CAS
Q 11: 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.

Q 12: You are ready to taxi. You apply the toe brakes on the rudder pedals and release the PARK BRK. The BRAKES pressure falls to zero. What should you do?

A: This should not happen and you must assume that the BRAKES pressure indicator has failed.

B: Nothing as this is normal. The BRAKES pressure indicator only indicates alternate (yellow) brake pressure.

C: You must re-apply the PARK BRK and call for maintenance personnel as the main system pressure has failed.

D: The indication is normal because once the AUTO BRK is set to MAX the BRAKES indicator is by-passed.

Q 13: Which hydraulic system supplies pressure to the nose wheel steering?

A: Green*

B: Blue

C: Green and Blue.

D: Yellow.

* This is the case on earlier 214 models (MSN 21-22), Later 214 and 216 models (MSN 27-30) have it on the Yellow.

Q 14: The antiskid deactivates when ground speed is less than ______.

A: 10 kts.

B: 20 kts.

C: 25 kts.

D: 30 kts.

Q 15: 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.
Q 16: 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.

Q 17: What does each turn of the gravity gear extension handle do?

A: Open gear doors, unlock gear, drop gear.
B: Open gear doors, drop gear, shut doors.
C: Shutoff hydraulic pressure, open doors, unlock gear.
D: Open gear doors, shutoffs hydraulics, unlock gear, drop gear.

Q 18: How many turns are required on the gravity extension hand crank to extend the landing gear?

A: 2
B: 3
C: 5
D: 6

Q 19: 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 by 3 turns.

Q 20: Auto brake may be armed with the parking brake on.

A: True.
B: False.

Q 21: 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.
Q 22: When the landing gear is gravity extended, will nose wheel steering be available?
A: Only if the A/SKID & N/W STRG switch is selected ON.
B: No *
C: Limited nose wheel steering is available only through the captain’s rudder pedals.
* As notified earlier, this is for earlier models that have NWS on the green system.

Q 23: 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.

Q 24: 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.

Q 25: 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.

Q 26: The normal brake system uses _____ hydraulic pressure and the alternate brake system uses _____ hydraulic pressure backed up by the hydraulic brake accumulator
A: Green – Blue
B: Yellow – Blue
C: Yellow – Green
D: Green - Yellow.
Q 27: Wheel page of 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.

Q 28: Nose wheels and main wheels have fusible plugs that prevent the tires from bursting if they overheat.

A: True.
B: False.
* Only main wheels have fusible plugs.

Q 29: 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.

Q 30: 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.

Q 31: 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

Q 32: The gear doors remain open after a manual extension.

A: True.
B: False.
Q 33: The steering handwheels, which are interconnected, can steer the nose wheel up to _____ in either direction.

A: 55°.
B: 65°
C: 75°
D: 90°

Q 34: The green DECEL light on the autobrake pushbutton illuminates when the actual airplane deceleration corresponds to what percentage of the selected rate?

A: 80%
B: 90%
C: 92%
D: 95%

Q 35: Each main wheel has an antiskid brake.

A: True.
B: False.

Q 36: 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.

Q 37: The autobrake will arm if at least one ADIRS is functioning

A: True.
B: False.

Q 38: 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.
Q 39: Maximum speed for landing gear retraction is:
A: 200 kts
B: **220 kts**
C: 235 kts
D: 250 kts

Q 40: Nose wheel steering is available when:
A: Gear doors open
B: All gear doors closed
C: The Push button on either steering hand wheel is depressed
D: **Nose gear doors closed**

Q 41: Nose wheel steering is controlled by:
A: LGCIU 1.
B: **BSCU**
C: LGCIU 2
D: LGCIU 1 or 2

Q 42: When is pressure in the nose wheel steering system shut off?
A: **With towing lever in towing position or both engines are shut down or the A/SKID & N/W STRG switch is OFF**
B: During ground towing with one engine shut down or when aircraft speed is >60 kts
C: When the aircraft is on the ground with speed above 100 kts

Q 43: Hand wheel and pedals are operated simultaneously:
A: Hand wheel has priority
B: Pedals have priority (depending on speed)
C: **BSCU transforms these orders into nose wheel steering angle (signals are mathematically added)**
D: Hand wheel input will not be affected by pedals.
Q 44: Nose wheel steering by rudder pedals is limited to:
A: +/- 6 degrees under all conditions
B: +/- 75 degrees
C: +/- 90 degrees
D: Maximum +/- 6 degrees depending on aircraft speed

Q 45: When both hand wheels are operated simultaneously, the signals:
A: From the first pilot acting on his hand wheel have priority
B: Coming from the captain have priority
C: Are algebraically added
D: From the F/O have priority

Q 46: Nose wheel steering is available:
A: Aircraft speed below 70 kts, both engines (required to be) running, Towing lever in normal position, aircraft on ground.
B: Aircraft speed below 70 kts, both engines (required to be) running, Towing lever in normal position, aircraft on ground or in the air
C: Aircraft speed below 70 kts, one engine (required to be) running, Towing lever in normal position, aircraft on ground.
D: Aircraft speed below 70 kts, both engines (required to be) running), Towing lever in standby position, aircraft on ground.

Q 47: After T/O the left main landing gear shock absorber is stuck in the compressed position.
A: The gear can be retracted under all circumstances
B: The gear cab be retracted provided the nose gear is centered
C: The gear cannot be retracted; gear lever is blocked (interlock mechanism)
D: The gear can be retracted once the nose wheel steering is centered

Q 48: Is it possible (system wise) to lower the gear by gravity above 260 kts?
A: Yes
B: No
C: Yes, but only if green hydraulics available
D: Yes, but only if yellow hydraulic available
Q 49: System page “Wheel”. L/G position indicators (triangles), first line shows green triangles, second line behind shows amber crosses. Is the landing gear down?

A: Yes
B: No
C: Right hand gear only is down
D: Left hand gear only is down.

Q 50: During the approach you get master warning and ECAM “Gear Not Down”. The reason is:

A: Landing gear is not down locked and flaps 3 or full and both radio altimeters failed
B: Landing gear is not down locked, flaps at 3 and radio height lower than 750 ft
C: All of the above
D: None of the above.

Q 51: The alternate brake system uses:

A: The Yellow hydraulic system
B: The hydraulic accumulator
C: The Yellow hydraulic system and the hydraulic accumulator
D: The Blue electric pump.

Q 52: The antiskid system gets its reference speed from:

A: The ADIRS
B: A wheel tachometer
C: The LGCIU’s
D: The BSCU’s

Q 53: The principle of the anti-skid is:

A: Comparing the speed difference between the four wheels
B: Comparing wheel speeds with aircraft reference speed
C: Comparing wheel speeds between left and right landing gear
D: Comparing left and right wheel speeds on the same landing gear.
Q 54: Following failure of all 3 ADIRS, is antiskid available?

**A: Yes **

B: No

C: Only with Yellow hydraulics

D: Only with Green hydraulics

* Speed for the fastest wheel becomes the reference in this case.

Q 55: Alternate braking using the Yellow system. Autobrake is:

**A: Lost**

B: Still available with anti-skid

C: Still available without anti-skid

D: Still available provided Yellow system hydraulic pressure is available.

Q 56: Autobraking is initiated by:

A: Reverse thrust selection

B: Nose gear oleo compression

C: Main gear oleo compression

**D: Ground spoilers extension**

Q 57: The brake & Accumulator pressure gauge shows pressure from:

A: The Yellow hydraulic system

B: The Accumulator only

C: The Green hydraulic system

**D: Both Yellow brake system and the Brake Accumulator**

Q 58: The Hot light on the brake fan pushbutton illuminates when brake temperature reaches:

A: 250 deg C

B: **300 deg C**

C: 350 deg C

D: 400 deg C
Q 59: Max braking has been selected. Takeoff being aborted, engines in reverse, you have forgotten to arm the ground spoilers. Is autobrake activated?

A: No because spoilers will not deploy if not armed
B: Yes, provided speed is less than 72 knots
C: Yes, but only if Yellow hydraulic pressure is available

D: Yes, because spoilers will still deploy

To arm the ground spoilers, the lever must be pulled up when in the RET position. When the lever is armed (or reverse thrust is selected), all spoiler's surfaces will automatically extend at landing, or in case of a rejected takeoff.

Q 60: On wheel page of ECAM, Autobrake is flashing green. What does it mean?

A: Autobrake is disengaged
B: Autobrake failure
C: Anti-skid failure
D: Autobrake in operation

Q 61: On the ramp with APU running, park brake is set on, message on ECAM memo shows Park Brake.

A: In Green
B: In Yellow
C: In White
D: In White or Yellow

Q 62: The landing gear indicator panel receives the information from micro switches and proximity detectors connected to:

A: BSCU
B: LGCIU 2
C: LGCIU 1
D: BSCU and LGCIU 2
Q 63: The red arrow, near the landing gear lever illuminates when:

A: Landing gear is not up locked after retraction
B: Landing gear is in abnormal position
C: Landing gear is in transit
D: Landing gear is not down locked in approach configuration

Q 64: Landing gear indicator panel UNLK light illuminates red if

A: Gear is extended by gravity and doors are not closed
B: Gear is extended normally and doors are not closed
C: Gear is not locked in selected position
D: Gear is not selected down by 1,000 ft RA.

Q 65: The maximum speed with landing gear extended (VLE) is:

A: 260 kts / M.65
B: 280 kts / M.67
C: 300 kts / M.70
D: 320 kts / M.72

Q 66: Which ADIRS close the safety valve of the green hydraulic supply when speed is > 260 kts.

A: ADIRS 1 & 2
B: ADIRS 1 & 3
C: ADIRS 2 & 3
D: ADDIRS 2 or 3

Q 67: What is the maximum tyre speed?

A: 185 kts
B: **195 kts**
C: 205 kts
D: 225 kts
OXYGEN

Q 01: On which ECAM page could the flight crew check the exact pressure of the oxygen cylinder?
A: The PRESS page.
B: The DOORS page.
C: The COND page.
D: The STATUS page.

Q 02: 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.

Q 03: Approximately how long are the passenger oxygen generators able to produce oxygen?
A: 15 minutes.
B: 20 minutes.
C: 25 minutes.
D: 30 minutes.

Q 04: What is the main difference between the crew and the passenger oxygen system?
A: There is no difference: both are served by oxygen cylinders.
B: Crew is supplied from an oxygen cylinder; passengers are supplied by chemical oxygen generators.
C: Both the crew and passengers are supplied with oxygen from chemical oxygen generators.
D: The crew has an oxygen bottle for an emergency back-up supply.

Q 05: What is the purpose of the CREW SUPPLY push button?
A: When selected to ON, it supplies oxygen to the Captain & F/O only (jumpseats are not supplied)
B: When selected to ON, it allows the flow of low pressure oxygen to the crew’s masks.
C: In case of low cylinder pressure it allows the crew to tap into the passenger oxygen system.
Q 06: 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.

Q 07: 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.

Q 08: 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.

* Later models MSN 27-30 shows amber OXY when pressure is less than 300 psi. Option A is the best choice because it has more correct option than D.

Q 09: Illumination of the SYS ON light is an indication that:

A: The crew must depress the MASK MAN ON pb in order to deploy the masks.
B: Electrical power has been sent to deploy the masks, either manually or automatically.
C: The crew oxygen cylinder is empty.
D: All of the passenger masks have deployed.

Q 10: There are oxygen generators in each aircraft’s galley.

A: True.
B: False.
Q 11: 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.

Q 12: When does passenger oxygen flow start?

A: When the mask is pulled toward the seat.

B: When the oxygen doors open.

C: When the oxygen button is pushed.

D: When cabin altitude exceeds 14,000 ft
Q 01: You want to open the cabin door, whilst 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.

Q 02: 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

*FCOM associates escape path with DC SHED ESS and Overhead Emergency Lights with DC SHED ESS and AC Bus 1. The question needs to be more clear. Assuming its considering escape path and overhead as one thing then option A is correct, in any case AC ESS SHED is not a factor.*

- The **proximity emergency** escape path marking system comes on when the normal aircraft electrical power or **DC SHED ESS BUS** is lost.
- The **overhead emergency** lights come on if:
  - Normal aircraft electrical power system fails or
  - **DC SHED ESS BUS** fails or
  - **AC BUS 1** fails.
- **Exit signs** come on if:
  - Normal aircraft electrical power system fails or
  - **DC SHED ESS BUS** fails or
Q 03: 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.

Q 04: 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.

Q 05: Although no busses are unpowered, illumination of emergency exit lights in the cabin is desired. Which of the following answers are correct?

A: The emergency lights, exit signs and the floor paths markings will illuminate if the guarded EMER EXIT LT pb on the flight attendant CIDS panel is selected ON.

B: The emergency lights, exit signs and the escape path markings will illuminate if the cockpit EMER EXIT LT switch is ON.

**C: Both are correct.**

Q 06: The PBE provides a breathable atmosphere for approximately ______ minutes.

A: 10

**B: 15**

C: 16

D: 18

Q 07: How is crew oxygen provided?

**A: From a single bottle.**

B: There is one bottle per crew member except for jumpseaters

C: Oxygen generator.

D: One oxygen bottle with an oxygen generator.
Q 08: 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.

Q 09: 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.

Q 10: 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.
Q 11: 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 *

* If it fails to deploy automatically the overwing escape slide can be deployed using the red manual inflation handle.

Q 12: 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.

* Halon is rated for class "B" (flammable liquids) and "C" (electrical fires), but it is also effective on class "A" (common combustibles) fires.
Q 01: The audio management system allows the flight crew to use:

A: All the radio communication and radio navigation facilities installed on the aircraft in transmission and reception mode.
B: The interphone system.
C: The call systems and Passenger Address (PA) system.
D: All of the above.

Q 02: 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: Hold the PA button.
C: Select the MECH transmission key on the ACP.
D: Select the MECH transmission key on the ACP and hold the pushbutton for 2 seconds.

Q 03: On RMP, the ON/OFF switch controls:

A: The power supply to the RMP.
B: Only the STBY NAV function of the RMP.
C: Only the COM function of the RMP.

Q 04: You can tune the ILS receivers to different channels.
A: Yes.
B: No *

* This protects the autoland mode if the #1 autopilot fails and the #2 system assumes control.

Q 05: 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.
Q 06: 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

Q 07: 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.

Q 08: On the ground, the crew can energize the CVR manually by pressing the GND CTL pushbutton.
A: True.
B: False.
Q 09: RMP #1 is dedicated to which VHF radios?

A: VHF 1 and 2.
B: VHF 2 and 3.
C: VHF 1 and 3.
D: All radios.

Q 10: If you depress the guarded NAV button, the MCDU RAD NAV pages are inhibited and the RMP controls navaid tuning.

A: True.
B: False.

Q 11: The AUDIO SWITCHING rotary selector allows replacement of a failed #1 or #2 ACP with ACP #3.

A: True.
B: False.

Q 12: On the ground, CVR is stopped automatically ______ after the last engine shutdown.

A: Immediately
B: 1 minute
C: 3 minutes
D: 5 minutes.
Q 13: Only the last 60 minutes of recording are retained by the CVR.
A: True.
B: False *

* Last 2 hours is retained.

Q 14: 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.

* They probably mean handset.

Q 15: If an RMP fails, the selected receiver is no longer controlled by this RMP and frequencies and bars disappear from this RMP.
A: True.
B: False.

Q 16: If VHF 1 is selected on RMP 2, SEL light illuminates white:
A: On RMP 2.
B: On RMP 1.
C: On RMP 1 and 2.

Q 17: When looking at either RMP, how is it possible to determine if an RMP is selected to a VHF system it is not dedicated to?
A: The white SEL light will be illuminated on both RMP’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.

Q 18: In case of RMP 2 failure, VHF 2 is lost.
A: True.
B: False.
Q 19: The service interphone has ______ interphone jacks and an OVRD switch located on the overhead panel.

A: Five  
B: Seven  
C: Eight  
D: Ten

Q 20: 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.

Q 21: You receive a SELCAL on VHF 2, what happens on your ACP?

A: Amber sign call flashes on VHF 2 key.
B: Three green bars come on.
C: White SELCAL appears on VHF 2 pushbutton and VHF 2 reception selector illuminates white.
D: All of the above.
Q 22: 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
*Pressing the NAV key a second time returns control of the navigation radios to the FMGC

Q 23: When the aircraft is in the Emergency Electrical Configuration:
A: RMP’s 1 and 2, and ACP’s 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.

<table>
<thead>
<tr>
<th>ELEC EMER CONFIG SYS REMAINING</th>
<th>EMER GEN RUNNING</th>
<th>BAT ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IN FLIGHT</td>
<td>ON THE GROUND</td>
</tr>
<tr>
<td>COM (RMP 1)</td>
<td>NORM</td>
<td>NORM</td>
</tr>
<tr>
<td>COM (ACP CAPT, F/O)</td>
<td>NORM</td>
<td>NORM</td>
</tr>
</tbody>
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Q 24: With the AUDIO SWITCHING knob in the CAPT3 position, the Captain uses his acoustic equipment on ACP3.
A: True.
B: False.

Q 25: The flashing amber MECH light indicates that the interphone system is faulty.
A: True.
B: False.

Q 26: 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.
Q 27: Which ACP transmission key will illuminate if the flight attendants are calling the cockpit?
A: PA.
B: CAB.
C: ALERT.
D: VHF3.

Q 28: Is STBY/NAV tuning possible on RMP 3.
A: Yes.
B: No.

- The flight crew must select this backup tuning mode on both RMP1 and RMP2 if both FMGCs or both MCDUs fail. In the emergency electrical configuration, only RMP1 receives power.
- Pressing the NAV key on RMP3 has no effect.
- In the NAV backup mode, the flight crew can select radio communication systems as it would in the normal mode.
  Setting one RMP to NAV backup mode removes nav aids tuning from both FMGCs.
- When the flight crew uses an RMP to tune an ILS/DME or GLS/DME or MLS/DME, the PFDs do not display the DME distance.

Q 29: 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.

Q 30: The BFO key enables the beat frequency oscillator for listening to the ID signal.
A: True.
B: False.
Q 31: Pressing the _____ key, on the audio control panel, allows the crew to inhibit the audio navigation signals.

A: VOICE  
B: RESET  
C: ATT  
D: BFO

* Some VORs also transmit ATIS information. The voice key on the ACP is an audio notch filter which reduces the level of the 1000Hz ident tones on VORs, so that you can hear the ATIS transmission more clearly.

Q 32: If ATC mode selector is at AUTO:

A: Selected ATC operates only in flight.  
B: Selected ATC operates when FLEX or TOGA power is selected for takeoff.  
C: Selected ATC operates as soon as one engine is running.

Q 33: On ATC Control Panel, the FAULT light comes on if:

A: Selected Transponder fails.  
B: System 1 or 2 has failed.

Q 34: In case of dual FMGC failure selection of radio navigation frequencies is possible with:

A: RMP 1 only.  
B: RMP 1 and 2 only.  
C: RMP 1, 2 and 3.
Q 35: All communications radios are controlled:
A: From the audio control panels (ACPs)
B: By the F/O
C: From any one of the three radio management panels (RMPs).

Q 36: Only _____ is functional in the emergency electrical configuration.
A: RMP 3
B: RMP 1
C: RMP 1 and 3

Q 37: The Cockpit Voice Recorder will record:
A: Direct conversations between crewmembers.
B: All aural cockpit warnings.
C: Communications over radio and intercom.
D: Passenger address system announcements (as long as one PA reception knob is selected on).
E: All of the above

Q 38: The cockpit voice recorder will automatically operate on the ground for _______ minutes after electrical power is supplied to the airplane; or when at least _______ engine is operating.
A: 6 – 2
B: 5 – 1
C: 5 – 2
D: 4 – 1

Q 39: When using the boom mike, oxygen mask mike, or hand mike: the PA key must be pressed and held to use the aircraft PA system.
A: True
B: False

Q 40: When the ON voice key on an Audio Control Panel is pushed in; ADF and VOR ident signals are inhibited.
A: True
B: False
Q 41: With the INT/RAD switch of an Audio Control Panel (ACP) in the INT position and the sidestick Transmit Switch in the Transmit position, you are transmitting on the:

A: Intercom at all times.

B: Radio selected by the transmission switch on the Audio Control Panel.

C: Radio selected by the reception knob on the Audio Control Panel.

Q 42: To transmit and receive on the service interphone, the pilot must select the:

A: CAB reception knob and the ATT transmission key on the ACP *

B: CAB reception knob and the MECH transmission key on the ACP.

C: Service Int on the nose gear panel.

* The audio lines from the interphone jacks are connected to both CIDS (cabin intercommunication data system) directors. To establish a speech communication from the cockpit with the SVCE INTPH jacks, the CABin key and knob on any Audio Control Panel (ACP), must be pressed. The audio signals are transmitted to the jacks through the Audio Management Unit (AMU), the SVCE INTPH SYS, integrated in the CIDS directors and the audio lines.

Q 43: To communicate with a mechanic for manual start valve operation at the engine:

A: Select the INT/RAD selector to INT, and INT audio selector on

B: Select the transmission key push button labeled INT and the INT audio selector.

C: Select the transmission key push button labeled CAB and the audio selector labeled CAB *

* Transmission key push button is labeled ATT not CAB. The audio reception knob is labelled CAB.
Q 44: Illumination of the SEL indicator on a Radio Management Panel indicates:

A: The RMP has failed.
B: The VHF has failed.
C: **The RMP is being tuned to a transceiver from another RMP.**

Q 45: When would a green AM light illuminate on RMP 1?

A: Would not illuminate
B: **If AM mode is required and crew has selected HF1 and AM**
C: If crew has selected HF1 and single side band mode
D: If AM mode is required and crew has selected HF 2 and AM

Q 46: A VOR is tuned on RMP 1 using the STBY NAV function. Can this selection be seen on the MCDU RAD NAV page?

A: **No. Information on RAD NAV page is not available when the NAV pb on RMP is pressed.**

B: Yes. Information on RAD NAV page is always available.
C: No. It is not possible to tune a VOR using STBY NAV function.
D: Yes. MCDU RAD NAV page shows VORs tuned using STBY NAV function.

Q 47: Is it possible to tune a navaid with the STBY NAV function on RMP 3?

A: Yes
B: **No. STBY NAV function is not available on RMP 3**
C: No. RMP 3 is not available for crew use.
D: Yes but only on the ground.
Q 48: How can a navaid tuned through the STBY NAV on RMP 1 or 2 be identified?
A: The ident appears on the ND
B: By pressing out the corresponding reception knob on the ACP
C: All of the above.

Q 49: If an RMP fails:
A: The selected receiver is no longer controlled by this RMP
B: The frequency displays disappear
C: The green VHF or HF lights go out
D: All of the above.

Q 50: With the MECH transmission key on the Audio Control Panel pressed:
A: The flight interphone channel is selected for transmission via the ACP RAD switch or the side stick radio selector.
B: The cabin interphone channel is selected for transmission via the ACP RAD switch
C: You can speak to the ground mechanic via the handset
D: The mechanic will hear the external horn sound.

Q 51: How could you receive ATIS information from a VOR?
A: Pressing the ON voice key on the ACP
B: Pressing and releasing out the VOR reception knob and selecting the ON voice key on the ACP
C: Voice facility is not available through the ACP
D: None of the above.

Q 52: How do you cancel the ON VOICE green light?
A: By depressing the on voice p/b
B: By pressing in the VOR reception knob
C: By pressing in twice the VOR reception knob
D: By depressing the VOR reception knob.
Q 53: Once activated, how can you cancel the EVAC alert from the cockpit?

A: OFF switch.

B: Only able to deactivate from cabin (#1 Flight attendant).

C: COMMAND switch.

D: HORN SHUT OFF

(1) COMMAND pb (guarded)  

ON :  In the cockpit :  - EVAC light flashes red.
       - Depending on aircraft configuration, horn sounds.
       In the cabin :  - EVAC lights flash at FWD and AFT attendant panels.
       - Evacuation tone sounds.

OFF :  The alert is stopped.

The EVAC light flashes red when the alert is activated.
FLIGHT CONTROLS

Q 01: The flight control surfaces are _______ controlled and _______ actuated.
A: Electrically / hydraulically
B: Mechanically / hydraulically
C: Electrically / electrically

Q 02: What computer normally commands the operation of the elevators and horizontal stabilizer?
A: SEC 1
B: FAC 1
C: ELAC 2

Q 03: 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.

Q 04: Roll control is achieved by:
A: Ailerons
B: Ailerons and rudder.
C: One aileron and four spoilers on each wing.
D: Ailerons, rudder and spoilers

Q 05: When the flaps are extended, the ailerons:
A: Go to the centering mode.
B: Pitch up 5 degrees.
C: Droop 5 degrees.

Q 06: If electrical power to a SEC fails:
A: The affected spoilers automatically retract.
B: All spoilers automatically retract.
C: The affected spoilers remains in the last commanded position.
Q 07: 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.

Q 08: Should the active elevator actuator fail, elevator control is:

A: Lost.

**B: Maintained by the other actuator.**

C: Reduced.

Q 09: Two control surfaces that have mechanical backup are:

A: Elevator and rudder.

**B: Horizontal stabilizer and rudder.**

C: Speed brakes and rudder.

Q 10: Horizontal stabilizer trim automatically resets to zero degrees after landing.

A: True

B: False

Q 11: Should both FACs fail, maximum rudder deflection can be obtained after the _____ are extended.

A: Flaps

**B: Slats**

C: Gear

Q 12: Automatic rudder trim is provided at the rate of _____ while the manual rudder trim rate is _____ up to a maximum of _____.

A: 5 deg/sec - 2 deg/sec - 20 degs

**B: 5 deg/sec - 1 deg/sec - 20 degs**

C: 8 deg/sec - 2 deg/sec - 10 degs

D: 8 deg/sec - 5 deg/sec - 10 degs
Q 13: Four hydraulically-operated wing tip brakes are installed to lock the flaps or slats in case of:

A: Asymmetry and overspeed only
B: Asymmetry, overspeed and slow movement
C: Asymmetry, overspeed, symmetrical runaway and uncommanded movement
D: All of the above

Q 14: 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

Q 15: 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.

Q 16: 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

Q 17: 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: First two statements are correct

Automatic pitch trim freezes in the following situations:
- The pilot enters a manual trim order.
- The radio height is below 50 ft (100 ft with autopilot engaged).
- The load factor goes below 0.5 g.
Q 18: TOGA thrust is provided regardless of throttle position when _______ engages the autothrottle system.

A: Alpha Max
B: Alpha Prot
C: Alpha Floor

Q 19: The purpose of the Load Alleviation Function is to:

A: Relieve wing structure loads by moving the ailerons.
B: Relieve wing structure loads by extending spoilers 4 and 5.
C: Help slow the airplane down.
D: First two statements are correct *

* Load Alleviation Function (LAF) is available on some A320s and relieves wing structural loads in turbulent conditions. The ELACs and SECs monitor the airplane’s load factor and pilot-demanded load factor to determine LAF activation. When activated, the ailerons and spoilers 4 and 5 on each wing are deflected symmetrically upward.

Q 20: With the aircraft in Pitch Alternate Law, roll is in _____ Law.

A: Direct
B: Normal
C: Alternate

Q 21: In Pitch Alternate Law; the low Speed stability (nose down command) can be overridden by the sidestick.

A: True
B: False

Q 22: 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.

**FLARE MODE**

In Pitch Alternate Law, the flight mode changes to the flare mode when the pilot selects landing gear down. The flare mode is a direct stick-to-elevator relationship. (Refer to DSC-27-20-20 Direct Law.)
Q 23: In the event of a complete loss of electrical flight control signals, the airplane reverts to a _______ mode.

A: Mechanical  
B: Alternate Law  
C: Alternate law  
D: Abnormal Attitude law

Q 24: 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.

Q 25: 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.

Q 26: The autopilot will disconnect if the side stick takeover push button is depressed.

A: True.  
B: False

Q 27: 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.

Q 28: 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 aren’t any control surfaces with mechanical backup.
Q 29: What control surfaces do the FACs control?
A: The elevators.
B: The spoilers.
C: The rudder.
D: All of the above.

Q 30: Which of the following will automatically reset after landing?
A: THS.
B: Rudder trim.
C: Both are correct.

Q 31: What happens in the event of a single ELAC failure?
A: ELAC functions are transferred the SEC’s.
B: ELAC functions are transferred to FAC’s.
C: SEC functions are transferred the ELAC’s.
D: The functions of the failed ELAC will be assumed by the remaining ELAC.

Q 32: The alpha speed lock function:
A: Will inhibit flap retraction during an inadvertent movement of the flap selector at high AOA or low speeds.
B: Will inhibit slat retraction during an inadvertent movement of the flap selector at high AOA or low speeds.
C: Automatically raises the flaps if retraction has not been accomplished by 210kts.

Q 33: In normal law, if one stick is rapidly pulled fully 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.
Q 34: Which controls are used for the mechanical backup?
A: Ailerons and rudder.
**B: THS and rudder.**
C: Elevators and ailerons.
D: THS and elevator.

Q 35: Mechanically backed-up control surfaces:
A: Require hydraulic power for actuation
B: Are mechanically connected to the cockpit controls.
C: Both are correct.

Q 36: 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).

Q 37: Which of the following statements best describes the Load Alleviation function (LAF)?
A: Helps the pilot control the airplane.
B: Relieves wing structure loads by deflecting the ailerons and spoilers.
C: Relieve wing structure loads by deflecting only the spoilers.
D: Relieves wing structure loads by deflecting the ailerons.

Q 38: 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.
Q 39: The FAC’s primarily control which control surface?
A: Elevator.
B: Rudder.
C: Aileron.
D: Elevator and aileron.

Q 40: Which altitude limitation is associated with high lift devices?
A: Max altitude for extension is 20,000 ft.
B: Max altitude for extension is 22,000 ft.
C: Max altitude for extension is 25,000 ft.
D: Max altitude for extension is 27,000 ft.

Q 41: 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.

Q 42: Where does the SFCCs obtain AOA and air data information from?
A: SEC
B: ELAC
C: ADIRU
D: ADC

Q 43: 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.
Q 44: 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.

Q 45: 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 and standby control of the elevators, ailerons, and trimmable horizontal stabilizer.

C: Three computers which achieve normal and standby control of the elevators, ailerons, and THS.

D: Two computers which achieve normal elevator, stabilizer, and aileron control.

Q 46: 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 in their current position

Q 47: 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 computers (SFCC’s).
Q 48: The spoiler panels are the only flight control surfaces with no redundant control.
A: True.
B: False.

Q 49: What happens in the side stick-neutral high speed protection mode?
A: The autopilot disengages, bank angle limit is 30° and the aircraft is 25° roll limited.
B: The autopilot disengages, bank angle limit is 45° and the aircraft is 25° roll limited.
C: The autopilot disengages, bank angle limit is 40° and the aircraft rolls wings level and pitches up to slow down to VMO/MMO.
D: The autopilot disengages, bank angle limit is 35° and the aircraft rolls wings level and pitches to 10° to slow down to VMO/MMO - 20 kt.

Q 50: What is the maximum flap setting for in-flight use of the spoilers?
A: Flaps FULL.
B: Flaps 3.
C: Spoilers are not approved for in-flight use.
D: Flaps 10.

Q 51: 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.

Q 52: Can the crew make 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.

Q 53: Can you manually trim the rudder with the autopilot engaged?
A: Yes.
B: No.
Q 54: 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)

Q 55: Automatic pitch trim is provided both on ground and in flight.
A: True.
B: False.

Q 56: The Ground Mode is different in Alternate Law.
A: True.
B: False.

Q 57: 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°

Q 58: 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.

Q 59: 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.
Q 60: 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.

Q 61: The wing tip brakes are:
A: Pneumatically actuated.
B: Electric brakes.
C: Hydraulically actuated.
D: Mechanically controlled, hydraulically actuated.

Q 62: 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).

Q 63: The aircraft rudder can be manually trimmed with the autopilot engaged.
A: True.
B: False.

Q 64: 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°.
Q 65: 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 of the above.

Q 66: What kind of protections are provided if the aircraft is in Alternate Law?
A: G-load protection with a reduced factor.
B: Speed Stability
C: Full G load protection and speed stability
D: G-load protection and speed stability if the ADIRS and elevators are working.

Q 67: 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.

Q 68: You can degrade directly from Normal Law to Direct Law with gear down and a dual radio altimeter fault.
A: True.
B: False.

Q 69: Turn coordination is available in Alternate Law.
A: True.
B: False.

Q 70: If both pilots deflect their side sticks fully back:
A: The “pitch up” order is twice as high as with only one stick deflected.
B: The “pitch up” order is 1.5 times higher as high as with only one stick deflected.
C: No inputs are sent to the flight control computers unless one pilot presses the takeover pushbutton on his stick.
D: The “pitch up” order is equal to a single stick deflection.
Q 71: To disable a side-stick, you have to depress the red take-over button on the active stick. Holding the button down for 40 seconds will electrically lock the other stick out until its own red take-over button is pushed again.

A: True.
B: False.

Q 72: 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-activate 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’s side stick is in neutral position.

Q 73: 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.

Q 74: 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 it resets to the low speed limits for increased control.

Q 75: 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.
Q 76: 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 minimum
D: No

Q 77: The FLAP lever sends signal to Slat Flap Control Computer (SFCC) to command movement.

A: True.
B: False.

Q 78: Is there any rudder pedal feedback for the yaw damping and turn coordination functions?

A: Yes.
B: No.
Q 01: What are the different types of flight guidance?
A: Slaved and managed.
B: Automatic and manual.
C: **Managed and selected.**
D: Managed and manual

Q 02: 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.

Q 03: When the thrust levers are moved to the takeoff position, the FMGS updates 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.

Q 04: The takeoff bias is:
A: **Replaced when a bias is computed based on radio position.**
B: Retained for the remainder of the flight.
C: Blended out over the next 30 minutes.

Q 05: 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**
Q 06: How does the FMGS derive Vapp?
A: Vapp=Vls+5+(1/3 surface headwind component).
B: Vapp=Vls+10+1/3 surface headwind component.
C: Vapp=Vls+5+1/2 surface headwind component.
D: Vapp=Vls+10+1/2 surface headwind component.

Q 07: When flying at cruise altitude, the aircraft navigates using radio nav aids only.
A: True.
B: False.

Q 08: 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.

Q 09: What is managed climb speed below 10,000 feet?
A: Green dot.
B: 210 knots.
C: 250 knots.
D: Best rate of climb speed.

Q 10: 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.

Q 11: Which of the following nav aids can be autotuned?
A: ILS and ADF (for NDB data base approaches).
B: VOR and DME.
C: Both are correct.
Q 12: 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).

Q 13: 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.

Q 14: With the autopilot engaged, either sidestick can be moved freely.

A: True.
B: False, moving either sidestick will cause the autopilot(s) to disengage
C: False, only the PNF’s sidestick will freely move.

Q 15: 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.

Q 16: What is managed climb speed above 10,000 feet?

A: Green dot.
B: 250 knots.
C: 280 knots.
D: Econ climb speed.
Q 17: 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 overflown.

Q 18: 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.

Q 19: 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.

Q 20: 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.

Q 21: 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.
Q 22: 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 re-alignment.
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.

Q 23: SRS will command:
A: V2 + 10 with both engines operating *
B: V2 or current aircraft speed (whichever is higher) in the case of an engine failure.
C: Best rate of climb taking into account actual wind component.

* The only apparent reason why B should not be selected seems to be the lack of a complete statement i.e. “limited by V2+15” is not mentioned in option B.

In SRS mode, the aircraft maintains a speed target equal to V2+10 kt in normal engine configuration. When the FMGS detects an engine failure, the speed target becomes the highest of V2 or current speed, limited by V2+15 kt.

Q 24: 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.

Q 25: 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.

Q 26: If one GPS receiver fails, the three ADIRUs automatically select the only operative GPS receiver.
A: True.
B: False.
Q 27: 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.

Q 28: The pilot interfaces with the FMGS using the:

A: FCU.
B: Thrust Levers.
C: MCDU.
D: All of the above.

Q 29: 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.

Q 30: 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 or TRK mode is selected.

A: True.
B: False.

Q 31: Can the crew depress the RMP ON NAV pushbutton and use the RMP for navigation simultaneously with FMGC autotuning?

A: Yes, because the opposite FMGC will continue to autotune navais.
B: No, RMP backup tuning supersedes the autotuning function of both FMGC’s.

Q 32: 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.
Q 33: 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 takeover 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.

* A and B are obviously incorrect. D is not correct because FD2 has not crossed over and is still on its own side (i.e. -FD2). C is possible and it should have been 2FD2 but perhaps captain’s FD is not selected ON so its showing -FD2.

<table>
<thead>
<tr>
<th>DISPLAY</th>
<th>COLOR</th>
<th>MEANING</th>
</tr>
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</table>
| X FD Y  | White | X and Y give the FD engagement status on PFD1 and PFD2. X and Y can be 1, 2, or -:
|         |       | -: No FD is engaged on the corresponding PFD
|         |       | 1: FD 1 is engaged on the corresponding PFD
|         |       | 2: FD 2 is engaged on the corresponding PFD.
|         |       | The normal status (FD 1 and 2 engaged) is 1 FD 2. |

Q 34: 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.

Q 35: OPEN CLIMB (OP CLB) is a Managed mode.

A: True.

B: **False.**

Q 36: 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.

D: A red “WIND SHR” light; an aural “WINDSHEAR, WINDSHEAR, WINDSHEAR”

Q 37: 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.**
Q 38: 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.

* ILS will be captured but if ILS Pb is not pushed then ILS message flashes amber when APPR mode is armed.

Q 39: 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

Q 40: The aircraft has _______ Air Data Inertial Reference Units (ADIRU’s).
A: 2
B: 3
C: 4

Q 41: GPWS aural and visual warnings cannot be inhibited.
A: True
B: False

Q 42: 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 for takeoff.
B: Selection of the correct runway insures proper pressurization.
C: Selection of the correct runway permits the FMGC to update its position at takeoff.

Q 43: The two basic modes of flight guidance are:
A: Slaved and coupled.
B: Managed and selected.
C: Manual and coupled.
Q 44: Both autopilots can be engaged and active in any phase of flight.

A: True
B: False

Q 45: All nav aids are normally autotuned by:

A: The FMGC
B: MCDU
C: ADIRU

Q 46: VOR data can be displayed on:

A: Both NDs
B: The DDRMI
C: First two statements are correct

Q 47: What is the preferred method of radio position updating for the FMGS?

A: VOR/DME
B: ILS/DME
C: DME/DME

Q 48: The windshear function of the FAC’s is independent of the flight director on/off switch.

A: True
B: False

Q 49: 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

Q 50: 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.
Q 51: The airspeed indication on the PFD starts at:
A: 100 kts.
B: 80 kts
C: 50 kts.
D: 30 kts *

* 30 knots is also the lowest speed value that can be set as a bug on the ISIS (Integrated Standby Instrument System).

Q 52: 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

Q 53: Radio Height is displayed on the PFD:
A: Below 2500 feet.
B: When the LOC or APPR p/b is pressed.
C: When a Decision Height is selected.

Q 54: 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

Q 55: ILS 1 information is displayed on _____ when operating in the rose ILS mode:
A: PFD 2 & ND 1
B: PFD 1 & ND 1
C: PFD 1 & ND 2

Q 56: 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
Q 57: 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

<table>
<thead>
<tr>
<th>DISPLAY</th>
<th>COLOR</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>V/S±XXX</td>
<td>Green + blue numbers</td>
<td>Vertical speed mode is engaged to acquire and hold the V/S selected on the FCU. ALT CSTR are disregarded. If the aircraft reaches VLS or VMAX and cannot maintain the target, the indication is boxed amber and flashes, and the target pulses.</td>
</tr>
<tr>
<td>FPA±XX</td>
<td>Green + blue numbers</td>
<td>Flight Path Angle mode is engaged to acquire and hold the FPA selected on the FCU. ALT CSTR are disregarded. If the aircraft reaches VLS or VMAX and cannot maintain the target, the indication is boxed amber and flashes, and the target pulses.</td>
</tr>
</tbody>
</table>

Q 58: The ON BAT light on the ADIRS CDU illuminates:

A: Only when all IRU’s are on battery power.
B: When an IRU fault is detected.
C: **When one or more ADIRU’s; are supplied by airplane battery only.**

Q 59: 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.

Q 60: 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.

Q 61: An FMGS message which requires immediate attention is displayed in:

A: Red
B: **Amber**
C: Magenta
Q 62: If the FLEX TEMP is not entered on the Takeoff Page of the MCDU:

A: A FLX takeoff is still available; set power with the thrust levers.

B: The FMGS will enter it for you based on TAT.

C: A FLX takeoff is not available.

Q 63: Zero Fuel Weight is entered on:

A: Init B page.

B: Prog page.

C: Perf page.

Q 64: 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.

Q 65: 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.

Q 66: The Standby Attitude indication will remain available for ______ minutes after total electrical failure.

A: 5*

B: 7

C: 10

D: 22

* Perhaps for aircrafts without ISIS (Integrated Standby Instrument System) because ISIS is on the hot bus.
FIRE PROTECTION

Q 01: The avionics compartment is the only area where there is no fire extinguishing system installed.
A: True.
B: False.

Q 02: Engine fire loops are installed in the:
A: Pylon nacelle
B: Core
C: Fan
D: All the above

Q 03: If a break in both engine fire loops occurs within _____ seconds of each other a _____ will occur.
A: 8 sec./ a FIRE warning
B: 7 sec./ a FIRE DET FAULT message on ECAM
C: 10 sec./ a FIRE DET FAULT message on ECAM
D: 5 sec./ a FIRE warning

Q 04: The aircraft has dual fire detector loops to ensure that a fault in one fire loop will not affect fire detection capabilities.
A: True
B: False

Q 05: 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.

Q 06: Fire protection for the cargo compartments includes:
A: Two fire bottles; one for each compartment.
B: One single shot fire extinguisher for the aft compartment only.
C: One single shot fire extinguisher agents which can be discharged to either compartment.
Q 07: 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**.

Q 08: When the APU FIRE SWITCH is released out:
A: The Fire bottle is discharged.
B: The Fuel HP valve is closed.
C: The **APU bleed and crossbleed valves are closed**.

Q 09: DISCH 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.

Q 10: The GEN 1 LINE smoke light indicates:
A: A fire caused by number 1 generator.
**B: Smoke in the avionics ventilation system.**
C: Smoke in the cargo ventilation system.

Q 11: Can the APU FIRE test be performed using battery power only?
A: Yes.
B: No.

Q 12: 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.
Q 13: 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.

Q 14: 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.

Q 15: Engine heat sensing are located in pylon nacelle, engine core and fan section.

A: True.
B: False.

Q 16: 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.

Q 17: STATUS page: INOP SYS indicates “ENG1 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.

Q 18: Which of the following have automatic fire extinguishing systems?

A: APU, and lavatory waste bins.
B: APU, lavatory waste bins and avionics bay.
C: APU, aft cargo, forward cargo, lavatory waste bins and avionics bay.
D: APU, forward and aft cargo, lavatory and waste bins.
Q 19: 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.

Q 20: If an engine fire is detected, when will the pedestal mounted red FIRE annunciator light extinguish?

A: When the crew pushes the red MASTER WARN push button.

B: **Only after the fire warning no longer exists.**

C: Only after the crew selects the adjacent ENG MASTER switch to off.

Q 21: 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.

Q 22: 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 pushbutton 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.

Q 23: Should you lose both loops or FDU, fire detection is no longer available for the respective engine or the APU

A: **True**

B: False.

Q 24: What is indicated by a missing red APU thermal plug during an exterior preflight?

A: This is normal indication, the red APU thermal plug only appears if the APU halon cylinder is low.

B: **An APU fire agent thermal discharge has occurred.**

C: An external fire discharge has been activated.
Q 25: 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.

Q 26: 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.

Q 27: 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 external fire warning horn will sound and the APU red fire light will illuminate.

Q 28: 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.

Q 29: The avionics smoke detection system consists of the following:

A: A smoke detector, smoke detection control unit and one halon cylinder.
B: A smoke detector, and smoke detection control unit.
C: A smoke detector, heat detector, smoke detection control unit and one halon cylinder.
D: A smoke detector, smoke detection control unit and two halon cylinders.

Q 30: Will an APU fire test shut down the APU?

A: Yes.
B: No.
Q 3: Illumination of the GEN 1 LINE SMOKE light indicates:
A: A fire has been detected in the avionics compartment.
B: A satisfactory test of the avionics compartment smoke detection control unit.
C: Smoke has been detected in the avionics compartment ventilation duct.
D: A fire has been detected in the electronics compartment.

Q 32: 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.

Q 33: How many halon fire extinguishing cylinders are there per engine?
A: Each engine has two fire extinguishers.
B: Each engine has its own dedicated fire extinguisher and has the capability to share the other engine’s cylinder.
C: Each engine has its own dedicated fire extinguisher and has the capability to share one centrally located halon cylinder.
D: Each engine has one fire extinguisher.

Q 34: 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.

Q 35: You have detected avionics smoke. You have selected the GEN 1 LINE push button off and the RAT has been deployed. Generator 2 has been removed from the system. Which of the following is TRUE?
A: The cargo fire bottle automatically fires.
B: The avionics fire bottle automatically discharges.
C: The aircraft will be in the Emergency Electrical Configuration

Q 36: In conjunction with illumination of the GEN 1 LINE SMOKE light and MASTER CAUT light:
A: The BLOWER and EXTRACT push button FAULT lights will be illuminated.
B: Only the BLOWER FAULT light will be illuminated.
C: Only the EXTRACT FAULT light will be illuminated.
Q 37: After depressing the CARGO SMOKE TEST push button once, a satisfactory test of the aft cargo compartment smoke detector consist of:

A: **Two complete cycles with associated warnings.**

B: Not needed as this system self-tests during the first engine start.

C: One complete cycle with associated warnings.

D: Three complete cycles with associated warnings.

![TEST PB](image)

**TEST PB**

Tests the operation of the cargo smoke detection system.

When pressed for at least 3 s, and until released:
- Tests the smoke detectors in sequence
- Turns on the **red SMOKE lights twice**, and displays the ECAM warning
- Closes the isolation valves of the cargo ventilation system
- The DISCH lights come on in amber.

Q 38: 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/DISCH push button will illuminate.**

C: It is not possible to test the APU fire protection while on battery power.

Q 39: If you perform the APU FIRE TEST with only DC power available, you get the MASTER WARN on the ECAM.

A: True.

B: False.

Q 40: In the event an 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.
Q 41: During the walk-around, you have to check that the APU Fire extinguisher overpressure indication (green disc) is in place. This is an indication that the fire bottle has not been discharged.

A: True

B: False *

* The disc is red not green.

Q 42: The AFT SMOKE light closes the aft cargo inlet and outlet isolation valves and shuts off the aft cargo extraction fan.

A: True.

B: False.

Q 43: 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.

Q 44: 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.

Q 45: 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 SQUIB/DISC lights illuminate.

C: E/WD red 1 (2) ENG FIRE warning, lower ECAM engine page, red FIRE annunciator, red ENG FIRE push button, and AGENT SQUIB/DISCH.
Q 46: 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 second.
C: 3 seconds.
D: 6 seconds.
AMBIGUOUS QUESTIONS

Following questions found in various question banks on the internet have either been marked incorrectly, have ambiguous options or are beyond my knowledge and experience. The errors and doubts have been highlighted and mentioned along with the questions for review. If you consider that the following questions are marked correctly and have no ambiguity then please share your thoughts so that corrections can be made accordingly at my end. You may use this LINK FOR CONTACT or one at the end of this document. Thank you!

Q 1: 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.

C marked correct whereas D is also correct according to FCOM.

Q 2: The pack flow control valve closed automatically in case of:
A: Pack overheat, engine starting, or operation of the fire or ditching push button
B: Bleed valve failure, pack outlet pressure increase
C: Trim air valve failure
D: All of the above.

D marked correct whereas A seems to be correct. Why would trim valve lead to pack flow control valve closure?

Q 3: What information is supplied by the IR’s and displayed on the PFD?
A: Heading, attitude, and vertical speed.
B: Heading, altitude, and vertical speed
C: Airspeed, altitude, and backup vertical speed.
D: Heading, attitude, and altitude.

B marked correct whereas A seems to be correct. Altitude info is provided by ADR not IR.
Q 4: If the LOWER ECAM DU fails, is there a way to retrieve that information?

A: Pressing and holding the related systems page pb on the ECAM control panel; the page will be displayed on the UPPER ECAM.

B: Rotating the ECAM/ND XFER switch, the LOWER ECAM page will be transferred to either the Captain or First Officer’s BND.

C: Both are correct.

Some question banks have marked C as correct while some have marked A as correct. If BND is a typo and they actually mean ND then C is correct. If BND is not a typo and is deliberately added to cause confusion, then A is correct since BND does not mean anything.

Q 5: 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.

C marked correct whereas A seems to be correct.

Q 6: What does Green Dot represent?

A: Maneuvering speed in clean configuration

B: Maneuvering speed in clean configuration when speed is managed

C: The next flap extend (VFE) max speed

D: The flap extend min speed from clean configuration

B marked correct whereas A is correct. Got nothing to do with selected or managed guidance it’s the best L/D speed.

Green Dot (Engine-out operating speed in clean configuration)
This green dot appears, when the aircraft is flying in the clean configuration.

Q 7: 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.

A Marked correct in some question banks however cannot find anything in the FCOM about this. Another question in the question bank is also negating this e.g. Q: Will the APU bleed valve close automatically during climb? Will it reopen during descent? Correct answered marked is NO.
Q 8: With the EMER EXIT LT selector in the ARM position, which situation will activate the emergency lights and exit signs?

A: AC SHED bus unpowered

B: AC bus #1 unpowered

C: DC ESS SHED bus unpowered

D: DC bus #2 unpowered

B marked correct whereas C seems more correct.

- Exit markers come on when the normal aircraft electrical power or DC SHED ESS BUS is lost.
- The overhead emergency lights come on if:
  - Normal aircraft electrical power system fails or
  - DC SHED ESS BUS fails or
  - AC BUS 1 fails.
- Exit signs come on if:
  - Normal aircraft electrical power system fails or
  - DC SHED ESS BUS fails or

Q 9: Which condition will automatically illuminate the escape lights?

A: AC ESS SHED bus not powered.

B: Loss of power to the AC bus 1.

C: DC ESS BUS not powered.

D: DC ESS SHED bus not powered

C marked correct whereas D is correct.

- The proximity emergency escape path marking system comes on when the normal aircraft electrical power or DC SHED ESS BUS is lost.
- The overhead emergency lights come on if:
  - Normal aircraft electrical power system fails or
  - DC SHED ESS BUS fails or
  - AC BUS 1 fails.
- Exit signs come on if:
  - Normal aircraft electrical power system fails or
  - DC SHED ESS BUS fails or

* NOTE: These questions are associating Emergency Lights + Exit Signs with AC BUS 1 and Escape Path with DC ESS SHED which cannot be confirmed from FCOM.
Q 10: 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.

C marked correct whereas B can also be correct if this feature has been installed.

Q 11: Following an ENGINE 1 BLEED FAULT, why can you only use one pack if Wing Anti Ice (WAI) is on?

A: Only one user can be supplied via the X BLEED duct.

B: Only ENG BLEED system cannot supply 2 packs and WAI.

C: If you use WAI, the X BLEED valve is automatically closed. Therefore, pack 1 will no longer be supplied.

D: One engine bleed system can either supply both packs or one pack plus WAI

B Marked correct whereas there seems to be nothing wrong with option D.
Q 12: 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 Switch is selected “ON” when the slats are extended.

A marked correct whereas B seems more correct. The FCOM text is as under:

MODE SEL pb-sw
AUTO : Control of center tank pumps is automatic:
- They run at engine start for 2 min,
- Before or after the engine start sequence, the pumps run if the slats are retracted,
- They stop automatically 5 min after center tank low level is reached.

If the FUEL MODE SEL pb-sw is in AUTO mode:
If center tank is feeding, the wing tank will tend to overfill and the system automatically selects the CTR TK PUMP off when the inner tank is full. The wing tank pumps will feed until the engine have used approximately 500 kg (1100 lb) of fuel when the fuel level reaches the underfull sensors. The logic circuits then restart the center tank pumps.

If the FUEL MODE SEL pb-sw is in MAN mode:
If center tank is feeding, the wing tanks will tend to overfill but the system does not automatically select the CTR TK PUMPs OFF when the inner tank is full. Therefore, an overflow of the wing tanks can occur on ground if the CTR TK PUMPs are not switched OFF.

Q 13: The alternate brake system has the same capabilities as normal brakes except:

A: Anti-skid is inoperative.

B: Autobrakes are inoperative.

C: Both first statements are correct

C marked as correct whereas B seems to be correct.

Depending on the failure, braking may revert to:
- Alternate braking with antiskid. This braking mode is controlled by the Alternate Braking Control Unit (ABCU), and the antiskid is controlled by the BSCU
- Alternate braking without antiskid. This braking mode is fully-controlled by the ABCU
- Alternate braking without antiskid on accumulator. This braking mode is fully-controlled by the ABCU.
Q 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.

B marked as correct but according to FCOM with AC BUS 1 failure only overhead emergency lights should come on. Can’t find the correct option here?

- The proximity emergency escape path marking system comes on when the normal aircraft electrical power or DC SHED ESS BUS is lost.
- The overhead emergency lights come on if:
  • Normal aircraft electrical power system fails or
  • DC SHED ESS BUS fails or
  • AC BUS 1 fails.

Q 15: 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.

D marked correct but unable to find APU shut down option in the Refueling Panel of A320. May be this option relates to some other aircraft type or an older version.
If you are still wondering what’s a “No Break Power Transfer”?  

**No Break Power Transfer:** Several specifications and brochures concerning 400 HZ Ground Power Units (GPU) mention protection for No Break Power Transfer (NBPT). Few explain why it is included or what this requirement actually means. Originally when power was switched from internal aircraft sources to an external source, the internal source connection was broken, before the external connection was made. This was a “break before make” transfer. It meant that there was a time without power during the transfer. This is shown in Figures 1, 2 & 3.

![Diagram 1](image1.png)

In Figures 4, 5 & 6 the internal and external sources are tied together before the aircraft internal side breaks. This is a “make before break” transfer. Power to the aircraft electrical loads is never interrupted. This is referred to as a No Break Power Transfer (NBPT).

![Diagram 2](image2.png)

Q 16: 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.

C marked correct whereas only A seems to be correct. According to option B when alpha floor is activated A/THR is in active mode.

<table>
<thead>
<tr>
<th>A. FLOOR</th>
<th>Green</th>
<th>TOGA LK</th>
<th>Green</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Amber box</td>
<td><strong>A/THR is active and commands TOGA thrust while α. FLOOR conditions are met.</strong></td>
<td>Amber box</td>
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</tbody>
</table>
Q 17: 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 wheel steering and anti-skid.

B marked as correct whereas A seems to be correct because if landing gear was lowered by gravity that means green pressure is lost and green is needed for autobrakes.

Q 18: 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: 1300 PSI, ECAM DOOR/OXY page

D marked correct but how has 1300 psi been determined? OXY pressure indication on DOOR OXY page turns amber below 400 (older models) and 300 psi (later models).

Q 19: Roll control in NORMAL LAW is achieved with:

A: Ailerons and spoilers

B: Ailerons, spoilers and rudder.

C: Ailerons, spoilers 2-5 and rudder.

C marked correct whereas A seems to be correct.
Q 20: 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.

D marked correct whereas C seems to be correct.

HORN SHUTOFF pb
Pressing this button silences the cockpit horn.

Q 21: With the EMER EXIT LT selector in the ARM position, if DC shed 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.

A marked correct whereas C seems to be correct assuming DC ESS SHED failure. FCOM does not mention about DC SHED BUS 1 or 2, its just DC SHED.

- The proximity emergency escape path marking system comes on when the normal aircraft electrical power or DC SHED ESS BUS is lost
- The overhead emergency lights come on if:
  - Normal aircraft electrical power system fails or DC SHED ESS BUS fails or
  - AC BUS 1 fails.
- Exit signs come on if:
  - Normal aircraft electrical power system fails or DC SHED ESS BUS fails or

Q 22: The Electronic Flight Instrument System (EFIS) consists of _______ identical display units.

A: 4
B: 5
C: 6
D: 8

C marked correct whereas A seems to be correct since:

EFIS is PFD + ND = 4 DUs
ECAM is E/WD + SD = 2 DUs
EIS is EFIS + ECAM = 6 DUs
Q 23: 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 pushbuttons for 2 seconds simultaneously.
D: Press the CVR ERASE pushbutton and CVR TEST pushbuttons for 2 seconds simultaneously (with the parking brake set).

A marked correct whereas B seems to be correct.

Q 24: 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.

A marked correct whereas it does not exactly answer the question. The question is about the “Mode” and not “Law”. According to FCOM after the “Flight Mode” there is a “Flare Mode”. In normal law it starts at 50 feet and in alternate law it starts when the gear is selected down. It is correct that the law changes to a direct one since according to FCOM the flare mode is defined as essentially a direct stick-to-elevator relationship but that does not negate the existence of the mode itself.

When the aircraft passes 50 ft RA, the THS is frozen and the normal flight mode changes to flare mode as the aircraft descends to land. Flare mode is essentially a direct stick-to-elevator relationship (with some damping provided by the load factor and the pitch rate feedbacks).

In pitch alternate law the flight mode changes to the flare mode when the pilot selects landing gear down. The flare mode is a direct stick-to-elevator relationship. (Refer to DSC-27-20-20 Direct Law).
Q 25: 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

A marked correct whereas D seems to be correct.

CLB mode guides the aircraft in a managed climb, at either a managed or a selected target speed, to an FCU selected altitude, taking into account altitude constraints at waypoints. The system also considers speed constraints if the target speed is managed. The vertical flight path may include several segments:

<table>
<thead>
<tr>
<th>ENGAGEMENT CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ident: DSC-22_30-70-20-00010512.0001001 / 17 AUG 10</td>
</tr>
<tr>
<td>Applicable to: ALL</td>
</tr>
</tbody>
</table>

The CLB mode can be engaged, if the following conditions are all met:
- The aircraft has been in flight for more than 5 s
- The selected FCU level is above the present aircraft level
- The descent, approach, or go-around phase is not active
  - NAV mode is engaged
  - Glideslope (G/S) mode is not engaged.

Q 26: 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.

D marked correct but APPR arming is not restricted to vertical mode only. Option B is also correct. So, the best answer seems to be A where managed navigation would cater for both vertical and lateral aspects.
Q 27: 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.

C marked correct whereas D seems to be correct. The question is about computing radio position and not updating FM position or about navigation modes.
Q 28: The APU test switch on the APU Auto Exting panel when pushed will:

A: Test APU fire warning.
B: Test auto extinguishing.
C: Test auto shutdown circuit and shut down an operating APU.
D: All the above.

A marked correct whereas D seems to be correct.

![APU Auto Exting Panel](image)

**TEST PB-SW**

When pressed, tests the following APU circuits:
- Fire warning
- Auto extinguishing
- Shutdown.

During the test sequence, the APU MASTER sw must be ON. If all circuits are operating correctly, the OK light comes on.

*Note: If the APU was running, it shuts down.*

Q 29: Placing the EXTRA CT 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.

C marked correct but B is also correct.

![Blower Fault Alert](image)

**BLOWER FAULT OR EXTRACT FAULT ALERT**

When the BLOWER or the EXTRACT pushbutton switch is set at the OVRD (override) position, the system is in closed-circuit configuration and adds air from the air conditioning system to the ventilation air.
Q 30: A319/320/321. With the APU supplying bleed air what will be the pack flow if the PACK FLOW selector is LOW?

A: A319/320 – HIGH and A321 – NORMAL
B: A319/320 – NORMAL and A321 – HIGH
C: NORMAL in all cases
D: HIGH in all cases

A marked correct whereas D seems to be correct.

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Q 31: 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.
B: 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

A marked correct whereas option D also seems to be correct.
If you have identified a question which is correct and has been placed in the list of ambiguous questions or have spotted a question which is incorrect but has been placed in the list of correct questions then please REPORT HERE. Thank you!

If the question bank fed in the examination database has not been edited to have only the correct options marked as correct then you will have to choose the incorrect options to get your facts right.

*Two wrongs make a right in this case!*

Disclaimer: “A320 Technical Questions” are personal notes of the undersigned for training only. These notes do not sanction any pilot to violate his/her Company’s Standard Operating Procedures, Aircraft Manuals or Manufacturer’s Recommendations.