

Note: Due to this being copy-pasted off the website and having all of its HTML elements removed the formatting may not always be great. My apologies about that. Other than that it should all mostly check out.

1: (Q125) Name the different sources which can supply air to the aircraft systems while the aircraft is in flight:

- Each engine and the APU.
- o Each engine, the APU, the RAT (Ram air turbine).
- o Each engine, the APU, emergency compressed air (stored in high pressure bottles).

2: (Q126) Name the different sources which can supply air to the aircraft systems while the aircraft is on ground:

- o Each engine, the APU, emergency compressed air (stored in high pressure bottles).
- o Each engine and the APU.
- Each engine, the APU or an pneumatic ground source.

3: (Q127) Can the cabin be air conditioned when the packs are inoperative?

- Yes, but only on the ground by an external air-conditioning ground source who supplies conditioned air directly into the cabin.
- o Yes, in flight by the emergency ram air conditioning pack. On ground by an external air-conditioning ground source.
- o No, conditioning air can only be supplied by the packs.

4: (Q128) Some aircraft are equipped with an emergency ram air system. What is the function of this system?

- o When active, the kinetic energy of the ram air will power a small emergency air-conditioning pack.
- o When active, the ram air will be cool in the inoperative packs to prevent an overheat.
- When active, it will discharge the cabin pressure and allows direct cold ram air into the cabin.

5: (Q129) At most airports an external air-conditioning source is connected. Why is this done?

- o Because of safety. The packs, located just below the centre fuel tank, produce a lot of heat and are not sufficiently cooled when the aircraft stands still.
- An external air-conditioning source is more economical.
- o Because of noise restrictions at the gate. If the pack has to work the APU has to run.

6: (Q130) Which of the following statements is incorrect? A turbo compressor....

- o is used as a supplemental use source of bleed air.
- o can be switched on and off by the crew.
- is used on turbo-prop and piston engine.

7: (Q131) During normal stages of flight, the engine bleed air source comes from:

- o The high pressure stage of the compressor.
- The low pressure stage of the compressor.
- o Ram air.

8: (Q132) Why does the engine bleed air supply come from the low and high stage of the compressor?

- o If the low pressure stage supply fails, the high stage takes over.
- o Some bleed air systems will use only the low pressure stage, others will use the high stage.

- If the low pressure stage cannot supply enough air, the high stage will be used.

9: (Q133) Where is the ground air conditioning cart used for?

- Supplying the cabin with conditioned air, when only the cabin needs to be conditioned.
- o Running the de-icing system.
- o Starting the engines.

10: (Q134) The RAM air supply is used....

- o only on unpressurized aircraft.
- o as an alternate source to power the air-conditioning packs.
- as an emergency air source on pressurized aircraft to ventilate the cockpit and the cabin.

11: (Q135) Which of the following bleed air sources CANNOT supply the aircraft systems in flight?

- o Auxiliary power unit.
- o Engines.
- Pneumatic ground cart.

12: (Q136) Why do we need a cabin environment system on board of a modern airliner? At economic cruising altitudes, the air is too....

- cold and contains not enough oxygen to survive.
- o dry and too cold to survive.
- o dry and due to the high aircraft speed we need to control the air flow speed within the cabin.

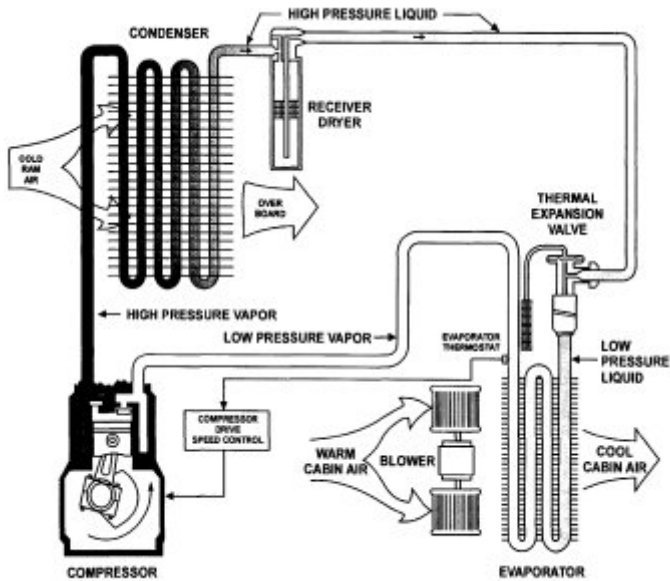
13: (Q137) On modern aircrafts what can be regulated by the environmental systems to improve the comfort?

- Pressure, temperature, humidity.
- o Temperature, humidity, smell (added perfume).
- o Pressure, temperature, air flow speed through the cabin.

14: (Q138) In what comfort range of temperature can an environmental system regulate the temperature?

- o From 2° to 40° approximately.
- From 20° to 30° approximately. The comfort range for human.
- o From 2° to 30° approximately. The comfort range for human but also extra cooling for the electronic equipment.

15: (Q139) What type of air-conditioning system is shown in this picture?



- The vapour cycle machine.
- o The double cooler air cycle machine.
- o The condenser re-heater air conditioning system.

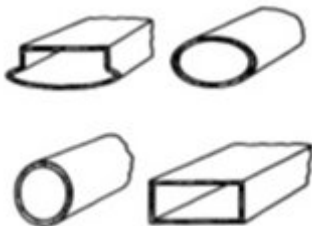
16: (Q140) In an air-conditioning pack, what is the main component that will produce the cold air?

- The turbine part of the air cycle machine. The faster it turns, the colder the exit temperature.
- o The compressor part of the air cycle machine. The faster it turns, the colder the exit temperature.
- o The flow control valve. The less flow the colder the exit air of the pack.

17: (Q141) In an air-conditioning pack, why do we have an anti-ice valve and how does it work?

- To protect the system when icing occurs in the water separator. Hot air will bypass the ACM and be used to heat up the water separator.
- o To protect the system when icing occurs in the turbine exit. Hot air will bypass the ACM and so the turbine will slow down.
- o To protect the system when icing occurs in the water separator. Hot air from the anti-ice valve will close as protection the pack flow valve.

18: (Q142) What kind of cross section is mostly used for distribution ducts?



- o Square cross sections. Other cross sections will be used if installation space does not allow it otherwise.
- o Circular for smaller cross sections, square for the bigger sections.
- Circular cross section where ever possible. Other cross sections will be used if installation space does not allow it otherwise.

19: (Q143) Does the temperature in the cabin remain stable once regulated?

- o Yes, it does not change much once stabilized.
- No, it will change a lot during boarding, during climb and descent.
- o No, it will change a lot, depending on the engine thrust settings.

20: (Q144) What is the working principle of an air-conditioning with a zone trim system?

- The packs are delivering a basic temperature, each separate zone receives some extra hot air depending on temperature demand for that zone.
- o The packs are delivering a basic temperature, each separate zone receives some extra cold air depending on temperature demand for that zone.
- o On the exit of the ACM (Air Cycle Machine) some trim air, hot or cold, is added to obtain the required temperature.

21: (Q145) Why have modern aircraft a zone temperature regulation?

- The passenger himself generates a lot of heat. So depending the occupancy of the zone (example: first versus coach), you win in comfort when each zone can be regulated separately.
- o The main reason is that since the air flows backwards towards the outflow valve, the more aft in the cabin the hotter it gets.
- o For the work comfort of the flight attendants, they can select a cooler temperature for the passengers.

22: (Q146) To compensate for the discomfort caused by the extraction of water from the air, what is sometimes used on long-haul aircraft?

- o Water separation
- Humidifiers
- o Water injection

23: (Q147) What is the recommended amount of water vapour in the conditioned air supplied to the cabin?

- o Zero
- Between 30% and 40%
- o More than 40%

24: (Q148) Besides supplying conditioned air, what is another function of the air conditioning system?

- o Supply air for wing anti-ice.
- o Pressurize the hydraulic reservoirs.
- Supply cooling air for the avionics equipment.

25: (Q149) Before the air from the air conditioning pack enters the cabin:

- Hot air is added to it to obtain the desired cabin temperature.
- o Cold air is added to it to obtain the desired cabin temperature.
- o Water is added to it to cool the air down.

26: (Q150) The EASA requirement for air conditioning systems state that the cabin air must be exchanged:

- Every 3 to 5 minutes.
- o 3 to 5 times a minute.

- o Once every hour.

27: (Q151) What is the cabin temperature range of an air conditioning system (in currently used Commercial Aircraft) ?

- Between 21 oC and 27 oC
- o Between 21 F and 27 F.
- o Between 18 oC and 36 oC

28: (Q152) What happens to the air temperature and air pressure when it leaves the compressor ACM (Air Cycle Machine)?

- o Both will be lower than the air going into the compressor.
- Both will be higher than the air going into the compressor.
- o The temperature will rise and the pressure will drop.

29: (Q153) Which of the following statements is correct?

- A vapour cycle machine is used if there is not enough bleed air available.
- o A vapour cycle machine can be used for pressurization.
- o A vapour cycle machine cannot be used on piston engine aircraft.

30: (Q154) What are the 3 basic principles of an air cycle cooling system?

- o Surface heat exchange - combustion - energy conversion
- o Compression - expansion - condensation
- Surface heat exchange - expansion - energy conversion

31: (Q155) What is used as the cooling medium in the primary heat exchanger?

- o Bleed Air
- Ram Air
- o Water

32: (Q156) In a double heat exchanger system, which heat exchanger receives cooling first?

- o The primary heat exchanger.
- o They both receive cooling at the same time.
- The secondary main heat exchanger.

33: (Q157) The cockpit air is supplied from:

- o The forward cabin air supply duct.
- The air conditioning pack before it goes into the mixing unit.
- o The mixing unit.

34: (Q158) What is an advantage of using an recirculation system?

- Less fuel consumption.
- o It can detect a fire in the system.
- o It is possible to get more cold air.

35: (Q159) Is it possible to disable the recirculation fans in the air distribution system, when there is a fire detected?

- o No.
- o Only when the engines are shutdown.

- Yes.

36: (Q160) In an air-conditioning pack is an anti-ice valve installed. How does it work?

- o Hot air from the anti-ice valve will close as protection the pack flow valve.
 - When icing occurs in the water separator, hot air will bypass the air cycle machine (ACM) and will be used to heat up the water separator.
- o Hot air will bypass the air cycle machine (ACM) and so the turbine will slow down in rpm.

37: (Q161) Why are mufflers installed in the air-conditioning distribution system?

- o For heat regulation in the distribution system.
- o To reduce the flow of air to the suppliers.
 - As low frequency noise suppressors.

38: (Q162) Cold air from the air-conditioning packs enters first the

- o gasper fan.
 - mixture unit.
- o recirculation fan.

39: (Q163) What happens if an air conditioning pack overheats?

- It automatically shuts down.
- o It goes into full cold mode.
- o I automatically slows down.

40: (Q164) The pack controller cannot keep the pack temperature within limits. It will then

- o trigger a pack overheat and closes the engine bleed system.
 - trigger a pack overheat and shutdown the pack by closing the pack valve.
- o close the bleed air from the recirculation fan.

41: (Q165) How is the pack temperature controlled?

- o By the turbine bypass valve and the trim air valve.
 - By the turbine bypass valve and ram air doors.
- o By the ram air doors and the trim air valve.

42: (Q166) With the zone temperature control valve it is possible to adjust

- o the amount of air after the turbine from the air-conditioning pack will be mixed to reach the zone temperature.
 - the amount of cold air from the mixer unit to reach the desired zone temperature.
- o the amount of cold air from the mixer unit to reach the desired zone temperature.
 - the amount of hot air that is mixed with the cold air from the air-conditioning pack, to reach the desired zone temperature.

43: (Q167) Why does an aircraft needs to be pressurized?

- o Passenger comfort, but it is not necessary .
 - To create, by pressurizing, a safe atmosphere.
- o If we do not pressurize we cannot heat the cabin.

44: (Q168) What is 'Cabin differential pressure'?

- o It is the control pressure signal send to a pneumatically operated outflow valve.
 - It is the pressure ratio between the cabin inside pressure and outside altitude pressure.

o It is the pressure altitude equivalent to the altitude where the aircraft is flying. (created atmosphere).

45: (Q169) What is the greatest effect if pressurization on an aircraft?

- It is one of the factors that causes metal fatigue of the fuselage.
- o It creates small air leaks between the rivets and the skin. Earlier, when smoking on board was still allowed, this was clearly visible by the nicotine leak marks around the rivets.
- o As long as you do not over pressurize it has no special effect on the aircraft.

46: (Q170) What are the basic components in an pressurization system? A pressure controller and a control panel, an outflow valve,....

- a pressure relief valve and negative pressure relief valve.
- o a negative relief valve.
- o an equipment cooling exhaust valve, a negative relief valve.

47: (Q171) What is the role of a ground-air signal in the pressurization system?

- o It will cut the power to the outflow valve once in ground mode.
- o It is used by the controller to calculate the pressurization profile for the next flight.
- It will determine when to start and to stop the pressurization cycle.

48: (Q172) What is the role of the altitude warning alert in a pressurization system?

- It will alert the crew that the cabin pressure is climbing to a dangerous cabin altitude for the passengers.
- o It will alert the crew that the cabin has reached the max altitude as calculated for that flight.
- o It will warn the pilot with a single chime sound that he has to select the height altitude mode for the controller.

49: (Q173) How is the pressure inside the cabin controlled?

- o By regulating the air conditioning pack output pressure.
- o By controlling the amount of bleed air to the air conditioning packs.
- By using one or more outflow valves.

50: (Q174) Which of the following modes of pressurization places the highest load demands on the aircraft structure?

- Isobaric mode.
- o Unpressurized.
- o Constant-differential pressure.

51: (Q175) The outflow valve of a pressurized cabin system opens when the cabin pressure is....

- too high.
- o too low.
- o too low or too high.

52: (Q176) The standard cabin pressure during flight on civil airliners is....

- is equal to the air pressure on 8000 feet.
- o is equal to the air pressure on 15000 feet.
- o maintained on ground level conditions.

53: (Q177) The constant-differential pressure operation mode cabin is when the cabin altitude....

- is maintained at a constant amount above the outside ambient air pressure.
- o remains the same as the flight altitude.
- o remains constant as the flight altitude changes.

54: (Q178) What is the function of the positive pressure relief valves?

- o They control cabin pressure and ensure the cabin altitude does not go above 10.000 ft.
- o They prevent negative cabin pressure differential.
- They relieve excess cabin pressure.

55: (Q179) What are the basic flight deck indications for pressurization?

- Cabin altitude, cabin rate of climb and pressure differential.
- o Cabin altitude, ambient temperature and pressure differential.
- o Aircraft altitude, rate of climb and atmospheric pressure.

56: (Q180) During take-off the outflow valve is selected to

- o modulating mode.
- o fully closed.
- fully open.

57: (Q181) The outflow of air from the cabin is regulated by

- o vent valve.
- o trim valve.
- outflow valves.

58: (Q182) During the take-off mode the outflow valves are in the pre-pressurisation position. How do the outflow valves move?

- o Move to open position.
- o In the modulating mode.
- Move towards closed.

59: (Q183) In a modern electronic pressurization system, what happens if the automatic cabin pressure controller fails?

- o The pressurization system is inoperable and the aircraft must descend to a lower altitude.
- The crew has to control the cabin pressure manually.
- o The standby cabin pressure controller takes over.

60: (Q184) When operating the outflow valve in manual/emergency mode, which motor is used?

- o Both AC and DC motors.
- The DC motor.
- o The AC motor.

61: (Q185) What places the pressure controller in the depressurisation mode after landing?

- Engines at idle and the landing gear compressed.
- o Engines at idle.
- o Landing gear compression.

62: (Q186) After landing the outflow valve is set to release the remaining pressure....

- o rapidly open.

- at a fixed rate.
- o full open at touchdown.

63: (Q187) Ditching control is used for

- o deploying life rafts.
- o rapidly aircraft depressurisation.
- closing all valves and inlets.

64: (Q188) What are some of the most important precautions to take when working at the air systems?

- o Make sure that the engine and apu igniters systems are deactivated.
- Make sure the system is depressurized and deactivated.
- o Make sure you have the correct tools. Some titanium ducts can be damaged by chrome molybdenum wrenches. Expensive damage will follow.

65: (Q189) What do you have to check before you connect a ground pneumatic or air-conditioning group to an airplane?

- o Make sure the ground group delivers air pressure that response to the operators limitations.
- o Make sure the ground group will not shut down unexpectedly, which could cause an aircraft over temperature.
- Make sure the ground group delivers air that is within the aircraft limitations. Pressure, temperature, flow capacity should be within limits.

66: (Q190) Why is it so important to check that you never apply a negative pressure in the air-conditioning and ventilation ducts?

- Some of the ducts are thin wall ducts. They can handle positive pressure but will collapse on negative pressure.
- o With a negative pressure you will risk to drive the ACM (Air Cycle Machine) in the wrong direction. This will damage the bearings of the ACM.
- o A negative pressure will produce a reverse flow in the system. This can damage the check valves.

67: (Q191) What precaution should you take during a pressurization test?

- Make sure that no doors can be opened (passengers or cargo) which could produce a rapid depressurization.
- o Be sure everybody is warned for the noise.
- o Special Air Protection, to avoid damage to hearing during a rapid depressurization.

68: (Q192) What precaution should you take while you are working on the air supply systems? (engine and airco)

- o Make sure that the aircraft is grounded.
- Make sure that upon removal of a duct or component the ports are immediately capped. This will prevent contamination falling into the system.
- o Always have a printed version of the AMM next to you.

69: (Q193) The emergency pressure control valve....

- o is fitted to all pressurized aircraft.
- is not a very refined way of controlling.
- o is electrically controlled.

70: (Q194) How is the emergency pressure control valve operated if the automatic control system fails?

- Manually
- o Electrically
- o Hydraulically

71: (Q195) In case of a pneumatic duct leak, the crew must....

- isolate the faulty duct.
- o land immediately.
- o turn temperature control to full cold.

72: (Q196) What protects the aircraft from over-pressurization?

- o The outflow valve.
- o Cabin pressure controller.
- The positive pressure relief valve.

73: (Q197) Static pressure:

- o is the total pressure inside the aircraft.
- is the outside air pressure at the instant of measuring.
- o is the dynamic pressure of the air due to the forward motion of the aircraft.

74: (Q198) The basic T arrangement:

- o consists of an attitude indicator, a vertical-speed indicator and heading indicator.
- o consists of two turn coordinators and a vertical-speed indicator.
- consists of an attitude indicator, airspeed indicator, altimeter and heading indicator.

75: (Q199) QNH:

- o means elevation of the aircraft on flight level.
- means elevation of an aircraft above-sea level.
- o means elevation of the aircraft above an airport.

76: (Q200) An attitude Indicator:

- o gives a representation of the aircraft to its horizontal axis.
- o displays a pictorial plan of the aircraft's situation in the horizontal plane.
- gives a representation of the aircraft's pitch and roll attitudes relative to the earth.

77: (Q201) A 'standard rate turn' on a Turn Coordinator, means that the aircraft completes a....

- 360-degree turn in two minutes.
- o 180-degree turn in two minutes.
- o 360-degree turn in one minute.

78: (Q202) A wing will stall....

- o when the airflow separates due to a minimum of AOA.
- at any airspeed, altitude and power setting, and it always stalls at the same AOA.
- o due to excessive Fuel weight, 'G' loading or angle bank.

79: (Q203) The angle of attack transducer:

- is mounted on the side of the aircraft.
- o has the same angle as the main wings.

- o creates extra lift to the aircraft.

80: (Q204) The AOA (Angle of Attack) indicator:

- o provides the pilot an indication of the bank angle of the aircraft.
- provides a visual warning of an impending stall.
- o is mounted on the side of the aircraft.

81: (Q205) The Electronic Attitude Director Indicator (EADI):

- o presents a selectable, dynamic colour display of flight progress and plan view orientation.
- o also allows other features such as MAP and Weather Radar displays to be selected.
- is indicating pitch and roll attitude.

82: (Q206) The Engine RPM Indication

- o of the engine is using thermocouples.
- indicates the rotational speed of the engine.
- o is the ratio of turbine discharge pressure to compressor inlet pressure.

83: (Q207) The primary engine parameters:

- are presented by the EFIS upper display unit.
- o are only available in the maintenance mode for fault finding and verification testing of major subsystems.
- o are only displayed to a flight engineer.

84: (Q208) Which of the following instruments is NOT an air data instrument?

- o Vertical speed
- o Airspeed
- Attitude

85: (Q209) Which of the following instruments needs pitot pressure to operate?

- Airspeed indicator.
- o Horizontal situation indicator.
- o Altimeter

86: (Q210) A bourdon tube is commonly used in which type of instrument?

- Instruments which measure high pressure.
- o Very sensitive low pressure instruments.
- o Differential pressure indicators.

87: (Q211) Which of the following instruments is NOT a gyroscopic instrument?

- o Altitude director indicator
- o Turn co-ordinator
- Slip indicator

88: (Q212) On which display can I find the glide slope and localizer indication?

- The attitude director indicator.
- o The I.L.S. indicator.
- o The horizontal situation indicator.

89: (Q213) What is 'compass swing'?

- o A mount for a magnetic compass to minimize the 'swing' of the compass card.
- o A maintenance task to align a magnetic compass true north.
- A maintenance task to reduce the deviation error of a magnetic compass.

90: (Q214) A flux valve is used for which type of instrument?

- A remote reading compass.
- o A direct reading magnetic compass.
- o An altitude director indicator.

91: (Q215) The critical angle of attack is:

- o Different at different stall speeds.
- o Affected by angle of bank.
- Not affected by the aircraft weight.

92: (Q216) When does the stick shaker activate?

- o After stall occurs.
- Prior to the stall occurring.
- o When a stall occurs.

93: (Q217) The purpose of an AOA (Angle of Attack) indexer is?

- o To sense the actual AOA outside the aircraft.
- o To generate an audio AOA warning during normal flight.
- To provide an AOA indication with coloured symbols during a landing approach.

94: (Q218) When does the electronic attitude director indicator go automatically into composite display?

- When the electronic horizontal situation indicator fails (EADI).
- o When selected by the crew.
- o When the engine indication and crew alerting system display fails.

95: (Q219) The partial compass format of an EHSI shows:

- o A 180 degree arc of a compass rose.
- A 90 degree arc of a compass rose.
- o A full compass rose.

96: (Q220) The radio altimeter....

- The radio altitude indication is displayed on the EADI.
- o The radio altitude indication is operational above 25000ft.
- o gives full time altitude information on the altimeter.

97: (Q221) Which type of fuel flow meter is commonly used in reciprocating engine aircraft?

- o Motor less type
- o Float type
- Vane type

98: (Q222) On a multispool turbofan engine, which speed is always displayed?

- High pressure rotor speed.

- o Fan speed.
- o Gearbox speed.

99: (Q223) What is used to measure exhaust gas temperature?

- Thermocouples.
- o Temperature bulbs.
- o Temperature switches.

100: (Q224) In a Fail Passive System;

- o The crew will disconnect a system before a dangerous situation occurs.
- o The crew is part of the monitoring when only one sensor of one kind is available.
- The system monitor will disconnect a system before a dangerous situation occurs.

101: (Q225) The Flight Director provides....

- o data for the air data computers.
- computed steering commands to the command bars of the ADI and/or to an autopilot system.
- o thrust commands for the engine trims.

102: (Q226) To provide the correct amount of rudder deflection to cancel the Dutch Roll is also called;

- o pitch trim
- o glide slope
- yaw damping

103: (Q227) What is pitot pressure?

- o It is the total pressure inside the aircraft.
- It is the dynamic pressure of the air due to the forward motion of the aircraft.
- o It is the outside air pressure at the instant of measuring.

104: (Q228) The device that starts emitting its location in the event of a crash is called:

- o a GPWS
- o a Selcal
- an ELT

105: (Q229) The Cabin Interphone:

- o takes care of the communication among maintenance personnel during maintenance activities.
- o enables recorded announcements and boarding music to be broadcast through the PA system.
- allows the cabin crew to communicate with each other and with the flight deck crew.

106: (Q230) The system that allows long distance voice communication is called:

- o Selcal communication.
- High Frequency communication (HF).
- o Very High Frequency communication (VHF).

107: (Q231) The Cockpit Voice Recorder....

- allows a minimum of 30 minutes of recording.
- o records all voice information of the cabin crew and the passengers.
- o contains also all engine and systems parameters.

108: (Q232) The Passenger Entertainment System PES:

- provides Video, Music, Interactive Video Games and In-seat Telephone System.
- o provides attendant Call, Individual Reading Lights Control and No Smoking Light on/off.
- o provides primary the passenger with information on ambient aircraft flight data, times and aircraft position in the flight plan.

109: (Q233) What system is used to transmit or receive automatically or manually generated reports or messages to or from a ground station?

- The Aircraft Communication Addressing and Reporting System (ACARS).
- o The Multichannel Aviation Satellite Communication System (MCS SATCOM).
- o The SELCAL (Selective Calling) system.

110: (Q234) The DME Distance Measurement gives information about:

- the slant range to the selected ground station.
- o the ground distance from the aircraft to the selected ground station.
- o the attitude of the aircraft.

111: (Q235) The three critical measurements for the air data computer are:

- o Airspeed, radio altitude and temperature.
- Airspeed, Altitude and temperature.
- o Altitude, groundspeed and coordinates.

112: (Q236) The system that determines the distance between the aircraft and the runway threshold is called:

- o VHF-navigation system.
- Marker Beacon system.
- o ADF-system.

113: (Q306) Comfortable seat cushions are often made of foam type materials. Is this authorized on an airplane?

- o Yes, but the cushions are made of a special foam, which cannot burn.
- o No, aircraft cushions are made out of pressed cotton and goose feathers. These pure natural products don't give toxic gases when burning.
- Yes, but the cushions are covered with a fire blocking material, this will slow down the burning of the material.

114: (Q307) What caution action should we take when a seat cover is very dirty?

- Remove and replace the seat cover for dry cleaning. Note the number of times this cover has been cleaned because the fire resistance will degrade.
- o Remove and replace the seat cover. Discard the old cover. Use always plastic gloves and a mouth mask for bacterial protection.
- o Remove and replace the seat cover for dry cleaning.

115: (Q308) On large aircraft (+44 seats), how is the maximum number of passengers certified?

- It is the number of evacuated persons (crew and passengers) during a simulated emergency evacuation.
- o It is the number of evacuated passengers (crew not included) during a simulated emergency evacuation.

o It is set by the number of seats possible to install in the cabin respecting the international approved minimum seat pitch of 28".

116: (Q309) What do you understand by 'emergency ropes'?

- o Big ropes, which can be used by passengers, but only when the emergency slides do not inflate.
- o It is a bag full of fluorescent red plasticized rope strips (5m x 0,5m). They are used for composing a text on the ground, readable from rescue aircraft. (arctic and desert overfly requirement)
- Big ropes, usually only accessible if the emergency exit is open, used to climb out of the aircraft.

117: (Q310) What is the difference between an escape slide and an escape raft?

- o An escape slide floating on the water, that remains pressurized for at least one hour is also called a raft.
- o Industry and manufacturers terminology. There is no difference.
- An escape slide that is also designed to be used as a boat, is called an escape raft.

118: (Q311) On a main door, how is a slide mostly activated?

- o The Flight Attendant will activate the slide.
- A girt or lanyard is attached to the floor when the slide is 'armed' when the door is opened the girt (pulling) or lanyard will automatically activate the slide deploy and inflation cycle.
- o The pressure differential (outside versus cabin pressure) will automatically activate the slide when the door is opened.

119: (Q312) When does an aircraft need to be equipped with slides, which can also be used as rafts?

- All exits with a door sill above 1,8 meter have to be equipped with slides.
- o When the aircraft flies longer than 90 minutes over water.
- o All aircraft certified for more than 44 passengers need exits equipped with slides.

120: (Q313) Describe the picture and its use.



- o This is a fancy trim on the edge of the carpet. It looks nice on darker colours.
- These are called 'the emergency floor path lights'. They will illuminate automatically when there is no power in the cabin and are used as exit guidance.
- o This is called the floor path lights. They will be illuminated by the crew during night flight to comfort of the passengers.

121: (Q314) Can a shovel be an mandatory safety equipment?

- o No.
- o Yes, only for operation on dirt or gravel landing strips.
- Yes, only for arctic operation.

122: (Q315) What kind of gas is used in the escape slide pressure cylinders?

- o Just compressed air. (+/- 3000 psi)
- A gas mixture of CO₂ and nitrogen. (pressure depends on bottle size)
- o 100% O₂, pure oxygen. (+/- 1800 psi)

123: (Q316) What type of gas is used in the inflation cylinder of a life vest?

- o Nitrogen (N)
- Carbon dioxide (CO₂)
- o Argon (Ar)

124: (Q317) How is a life vest inflated?

- o It will inflate automatically when the life vest is strapped around your waste.
- By manually pulling the release mechanism, you will activate the inflation cylinder or by inflating it yourself via a mouth inflation valve.
- o It will inflate automatically from the moment you unfold the life vest out of his protective valise.

125: (Q318) May a demonstration life vest be used in a real emergency?

- No, the cylinder is empty.
- o Yes, but only if the life time is not expired.
- o Yes, it is the personal life vest of the flight attendant and should be inspected after each demonstration by the flight attendant.

126: (Q319) What is the 'loose equipment layout'?

- It is a drawing of the cockpit and cabin, mentioning the required loose safety equipment, quantity and exact stowage location.
- o It is a numerical part-number list of all the safety equipment on board.
- o It is a checklist used by the cabin crew to easily check the expiring dates of the safety equipment.

127: (Q320) Why should maintenance staff never use the emergency torches stored on board of the aircraft?

- o To avoid the time consuming reinstallation process. They have to be secured with copper safety wire 0,5mm and a safety number label.
- To save the battery life time.
- o When you take them out of the stowage an alarm chime will go off in the cockpit. This needs to be reset prior to next flight.

128: (Q321) What subject does the FAR / EASA CS 25.853 covers on cabin upholstery materials?

- o This will tell which designers of fabrics have a part 21 approval and may deliver to the aviation industry.
- o This will regulate the way cabin interiors must be built to be conform with the new 15G force rules.
- This will regulate the fire resistance capabilities and toxic gas producing limits for all upholstery materials used on an aircraft.

129: (Q322) What do we understand by a 'flight crew exit'?

- Emergency exits build in the flight crew areas.
- o This kind of exits is only to be used by the pilots.
- o It has nothing to do with emergency systems. It is a term in the aviation industry to express that the captain has left the aircraft.

130: (Q323) What are the specifications of a 'flight crew exit'?

- o It must be an opening equipped with a rope or a slide.
- An unobstructed exit of 50 x 50 cm. This may be a sliding window or a top hatch door.
- o An unobstructed opening of at least 50 square centimetre. This may be a window.

131: (Q324) In case of electrical power loss, can the pilot still adjust his seat?

- o No. The seat is completely blocked in his its last position.
- Yes, all the seat functions can always be operated manually.
- o No, without power the electrical functions, vertical and horizontal movement will be lost. Other functions such as recline and lumbar support will remain since they have only manual control.

132: (Q325) Has the observers seat the same functions as the pilot seat?

- o Yes
- o Only on large aircraft (B777-B747-A330-A380) where the cockpit surface permits, an identical seat will be installed with all the same adjustments features.

- No, on large aircrafts the observer seat is usually very comfortable, but has not as many adjustment possibilities as the pilot seats.

133: (Q326) How many belts are attached to the buckle on an attendant's seat?

- 4,5 or 6
- o 3
- o 2

134: (Q327) How can passengers seats (spacing or pitch) be adjusted on installation?

- Seats are installed inside seat tracks with a 1-inch increment.
- o They are installed inside extrusion seat tracks with a 30-inch increment. This is the standard seat pitch requirement of ICAO. The seat itself can swivel 2 inch forward of aft on pivot points.
- o Seats are installed inside extrusion seat tracks with a 5-inch increment.

135: (Q328) How many cockpit seats do we find in a modern aircraft?

- o Mostly four. Captain, first officer, flight engineer and minimum one observer seat.
- o Mostly five. Captain, first officer, flight engineer, navigator, radio operator.
- Mostly three. Captain, first officer and minimum one observer seat.

136: (Q329) How are galleys installed in the cabin?

- o Since they are made from composite panels they are fixed to the floor tracks.
- They are usually fixed to the floor track with additional rods attached on side and top structural frames.
- o They are fixed to the floor panels and sealed with silicon's.

137: (Q330) What kind of electrical equipment may we expect in a galley?

- o Coffee makers, water heaters, micro wave oven, ice makers.
- Coffee makers, water heaters, fridge, ovens.
- o Coffee makers and water heaters.

138: (Q331) What is the best description for a 'combi aircraft'?

- o This just means that the aircraft transport passengers as well as cargo. Passengers in the upper lobe, cargo in the lower.
- o This is an aircraft with a mixed passenger configuration. This means that the aircraft has a mixed cabin lay out. (Ex. first/business/economy)
- This is an aircraft with a mixed configuration. This means that cargo also is loaded on the main deck passenger zone.

139: (Q332) What is the advantage of an integrated air stair?

- o You are independent of ground equipment, there are no major disadvantages since the stair is build that way that it makes a part of the structural strength of the aircraft.
- o You are independent of ground equipment, but the door can no longer be used as an emergency exit.
- You are independent of ground equipment.

140: (Q333) How are the cargo containers hold in place when loaded?

- o By special locks who will prevent side movement.
- o They are locked to the cargo floor beams with straps and spanners.
- By special locks who will prevent movement.

141: (Q334) What do we mean with the 'fire triangle'?

- It is a universal teaching representation where the 3 necessities to make a fire are represented in the legs of a triangle.
- o Is the presentation of water, carbondioxide (CO₂) and dry powder.
- o Has nothing to do with aviation but more a voodoo expression for aircraft which mysteriously disappear in close proximity of Bermuda.

142: (Q335) What are sufficient elements to make a fire triangle?

- Air - paper - 445°C engine bleed air
- o Air- kerosene - propane
- o Nitrogen - gasoline - oxygen

143: (Q336) If we are talking of a class A-B-C-D fire, what is the meaning?

- Each letter represent a fire caused by certain materials.
- o Each letter represents how big the fire is. It is a code similar to storms and hurricanes. (Ex: class c = very dangerous with risk of many lives)
- o Each letter represent the height of the flames following a X 10 factor, graduated in cm. (ex: a class A = a ground fire not higher then 10cm, class b = 100cm and so on)

144: (Q337) Which kind of fire category is more likely to take place in the electronic compartment?

- Class C fire (Energized by electronic over current due to failing circuit breakers).
- o Class A fire. (Fuelled by solid combustibles, in this case the insulation blankets).
- o Class D fire. (Fuelled by combustible metals, in this case the copper wire that burns).

145: (Q338) Where will a class D fire most likely take place, and what actions do we have to take?

- o These fires typically occur on the wheels and brakes. Never use water on burning brakes. The thermal chock is so intense that the brake will meld to the axle and the gear must be scrapped.
- These fires typically occur on the wheels and brakes. Never use water on burning metal, it will intensify the fire.
- o These fire typically occur on the wheels and brakes. Only use water, other extinguishers don't work on burning metal.

146: (Q339) What are the two main operating principle used for fire detecting probes? Operating on sensing a difference in pressure,....

- o or sensing a difference in light intensity. (infrared temperature measuring).
- o or passing a current limit coming from a bimetal.
- or sensing a difference between resistance.

147: (Q340) How will the pilot be alerted in case of overheat or fire?

- Usually the overheat will trigger amber warning lights, a fire warning will trigger red warning lights but also an aural alarm, mostly a ringing bell sound.
- o Each have their proper lights coming on, on the overhead panel.
- o Overhead and Fire will trigger the blue flashing light on the pedestal.

148: (Q341) Which types of smoke detectors are mostly used in aviation?

- The ionizing and the optical type.
- o The ionizing type and the infrared type.

o The optical type and the O2 type.

149: (Q342) What is the basic working principle of a overheat loop (change in resistance type)?

- It consists of two wires, one inside the other, both separated by a special isolation material.
- o It consists of two tension stretched wires inside a tube.
- o It consists of two wires, one inside the other and separated by argon gas.

150: (Q343) In which areas are fire extinguishers used on a passengers aircraft?

- o Engines, APU, cargo's, toilets, cabin, flight deck, electronic compartment.
- Engines, APU, cargo's, toilets, cabin, flight deck.
- o Engines, APU, cargo's, toilets, electronic compartment.

151: (Q344) On most modern aircraft, how would you describe the engine fire extinguisher bottle(s).

- o One spherical cylinders filled with dry powder.
- Two or more spherical cylinders filled with halon gas.
- o Per engine, two or more spherical cylinders filled with dry powder.

152: (Q345) How does a fire bottle installed near a toilet waste bin work?

- o It is a small cylinder with jet spray nozzle valve. When the smoke detector is triggered it will open the valve and the content will be sprayed into the waste bin.
- o It is a small cylinder with a jet spray. A plastic stop is blown of when the pressure in the container raises due to the fire heat expansion.
- It is a small cylinder with two outlet tubes. The end part of the tube is closed by a heat fusible tip. This will melt by the heat and the content will be released.

153: (Q346) How can we see that there has been a fire or overheat in a toilet waste bin?

- By checking the temperature plate label above the waste bin. The yellow or orange indicator turns black at a set temperature.
- o The special paint of the door panel will colour completely black.
- o By checking the interior of the bin for ashes and burned material.

154: (Q347) How is the APU extinguished in case of fire?

- o By an aluminium spherical cylinder filled with powder, installed near the apu.
- By steel spherical cylinder filled with halon, installed near the apu.
- o By switching off the fuel pump.

155: (Q348) What is a discharge cartridge?

- o It is a pressure membrane, that will explode at a calibrated temperature. When the cartridge is open the extinguisher gas can flow.
- It is a small explosive unit that will perforate a membrane. Once open the extinguisher gas can flow.
- o It is a small unit containing a spring-loaded and solenoid. When the solenoid is activated it will release the pin. This will perforate the end stop of the bottle and the extinguishing gas starts to flow.

156: (Q349) How do you test the fire bottles of the toilet waste bins?

- o You check the pressure indicator on the bottle.
- You need to weigh the bottle.
- o When empty the bottle becomes black.

157: (Q350) How do you test a single loop fire overheat system?

- o This can only be tested in a specialized component workshop.
- You press a test switch in the cockpit or on the controller.
- o You can only perform a flu test from the controller.

158: (Q351) What type of fire detection system is a fenwal detection system?

- o Thermocouple system.
- Continuous loop system.
- o Spot system.

159: (Q352) What is the sniffer used for?

- To detect smoke in avionics compartment.
- o To detect fire in the avionics compartment.
- o To detect smoke on the flight deck.

160: (Q353) What type of smoke detector contains radioactive material?

- o Carbon monoxide detectors.
- Ionizing smoke detectors.
- o Photo-electric smoke detectors.

161: (Q354) In a pneumatic fire sensor, what triggers the fire warning?

- o The difference pressure between static air pressure and expended air pressure.
- The pressure increase caused by the release of gas from the absorption material acting on a pressure switch.
- o The temperature of the gas inside the steel tubing acting on a temperature switch.

162: (Q355) In a dual loop fire detection system. 'Loop A' fire warning is shown, this means:

- o Loop a is faulty.
- o Loop A has detected a fire and loop B is faulty.
- A fire test must be performed to determine the condition of the loops.

163: (Q356) Which of the following areas in an aircraft would only have a smoke detection system and no extinguishing system?

- Avionics bay.
- o Engines.
- o Cargo bay.

164: (Q357) A carbon monoxide detector has to be replaced

- o monthly.
- o daily.
- normally every 90 days.

165: (Q358) In a continuous loop fire detection system is the Kidde system a

- o pneumatic type.
- thermistor type.
- o bi-metallic spot type.

166: (Q359) A systron-Donner fire detection system uses

- helium gas.
- o air.
- o nitrogen gas.

167: (Q360) How is avionics smoke detected?

- By sampling the air extracted from the avionics compartment racks.
- o By smoke detectors in the avionics boxes.
- o By carbon monoxide detectors in the avionics bay.

168: (Q361) On a 'Pull-and-turn' fire switch, when is the fire bottle discharged?

- o By pulling the handle up.
- By pulling the handle up and turning the handle to left or right.
- o By pulling the handle up, turning it to one side and pressing the discharge button.

169: (Q362) Some aircraft are fitted with 2 types of fire bottles: dump and metered bottles, used in the cargo compartment. Why is this?

- To ensure the concentration of extinguishing agent remains high enough for 180 minutes.
- o To ensure there is enough extinguishing agent for the whole aircraft.
- o To extinguishing different types of fires.

170: (Q363) What class of fire can be extinguished with water?

- Class A
- o All fire classes.
- o Class D

171: (Q364) Where is the lavatory waste bin fire extinguisher localized?

- o In lavatory ceiling.
- o There is no extinguisher in the lavatory.
- Is usually located above the waste bin.

172: (Q365) What ensures that the agent (Halon 1211) is dispersed in the shortest time possible in a high rate discharge bottle?

- o Halon 1301 or Nitrogen.
- o Oxygen.
- Nitrogen.

173: (Q366) How can you determine if the lavatory fire bottle has been discharged?

- By weighing it.
- o By the temperature indicator strip.
- o By reading the pressure gauge on the bottle.

174: (Q367) What does the red indicator disk on the fuselage indicate?

- o Indicates that the fire bottle has been fired.
- o Indicates that the fire bottle has not thermally discharged.
- Indicates a thermal discharged of the fire bottle.

175: (Q368) Which Halon type doesn't use a pressurisation agent?

- Halon 1301.

- o Halon 1211.
- o Halon 1001.

176: (Q369) Why is there a strainer installed in the fire bottle discharge valve?

- o To catch any fragment from the bottle.
 - To catch any fragment from the frangible disk.
- o To catch the yellow disk as an indication that the fire bottle is used.

177: (Q370) During a fire bottle squib test, the green light illuminates. This indicates:

- o That the squib is good.
- o That the squib has fired.
 - That the squib and firing circuits are OK.

178: (Q371) Pushing the fire test button does not test:

- o Fire detectors.
 - Squibs.
- o Indications and warnings.

179: (Q372) What indicates the yellow disk of a fire bottle (if installed) when it is ruptured?

- That the bottle has been fired.
- o That the pressure in the fire bottle was too high.
- o That the fire bottle is due for inspection.

180: (Q373) Does the pressure in a fire bottle vary with the temperature?

- Yes.
- o It has no influence on the pressure in a fire bottle.
- o Only when the temperature is lower than 10 degrees C.

181: (Q374) How are fire bottles without a gauge checked?

- By removing from the aircraft and placing on a weighing scale.
- o By doing a tap test on the fire bottle.
- o No check has to be done as long as the bottle is not used.

182: (Q375) When should you use water-type portable fire extinguishers?

- o Water-type portable extinguishers are perfect for solid combustible materials even metal fires. (ex: brakes and magnesium wheels). Do not use them on flammable liquid fires.
 - Water-type portable extinguishers are best for solid combustible fires (paper, fabrics, wood etc.).
- Never use them on electrical or flammable liquid fire.
- o Water-type portable extinguishers can be used for every fire.

183: (Q376) When should you use halon-type portable fire extinguishers? The halon-type portable fire extinguisher may be used....

- o on solid combustible materials only.
 - for every kind of fire. In the cabin it will be used for fires coming from electrical equipment.
- o only for fuel fires. (All fuel types)

184: (Q377) What kind of data do we find on the labels of a portable fire extinguisher?

- The manufacturer name and P/N & S/N. Approval date and instructions to use. Extinguisher type, weight details and last check or expire date. In the bottle usually the manufacturers date is engraved.
 - o The manufacturer and approval date and instructions to use.
 - o The manufacturer name. P/N & S/N. The colour will say the type (green=water, red=halon). The press indicator will show if the bottle is filled to level.

185: (Q378) What is the main reason to install only halon-type portable fire extinguisher in the cockpit?

- Because on fires in electronics you may only use halon.
 - o Halon avoids smoke, keeping the cockpit 'visual'.
 - o Because halon fire-bottles can be made much smaller and lighter and so much easier to handle by the pilot from the seat.

186: (Q437) What is the main purpose of the fuel system on board of an aircraft?

- o Store the needed amount of fuel on board in the wing tanks and be able to deliver a constant amount of fuel under gravity and action to all the engines.
 - o Store a quantity of fuel on board in the wing tanks and be able to deliver this fuel to the on-wing engine.
 - Store the needed amount of fuel on board in the tanks and be able to deliver a constant amount of fuel under pressure to all engines.

187: (Q438) Some aircraft models use the weight of the fuel to change the center of gravity during flight. Where is that fuel usually stored?

- In the trim tank of the horizontal stabilizer.
 - o In a forward cargo and in an aft cargo auxiliary tank.
 - o Fuel will be trimmed back to the centre tank. The CG is always more forward seen the wing sweep.

188: (Q439) What is considered as the biggest contamination in fuel?

- o Loose corrosion particles from the inside of the tank structure.
- o Loose paint particles from the inside of the tank.
 - Water.

189: (Q440) In general, how many fuel tanks are installed in an aeroplane?

- o Always four, tow in each wing. Optional five, if the centre tank is used.
 - Minimum as much at the number of main engines of the aircraft.
- o Always two (each wing), or three (centre tank) for long haul flights.

190: (Q441) How should you consume the fuel on an aircraft equipped with a centre tank or auxiliary tank?

- o Always empty the wing tanks first, then the aux tank. Centre tank the last.
 - Always empty aux tank first, then the centre tank. Wing tanks are used the last.
- o It doesn't matter. Empty that tank first to bring the CG (centre of gravity) as such that you fly with minimum drag.

191: (W42) Where do we find usually sumps and drains in a fuel tank?

- o Sumps and drains are found near the wing tip.
 - Sumps and drains are found on the lowest point of each fuel or vent tank.
- o Sumps and drains are found on the lowest pint of the fuselage.

192: (Q443) Large aircraft have dump valves. What is the purpose of these dump valves?

- o To dump reserve fuel flight prior to a normal landing. This procedure is used to improve the braking efficiency.
- o Structural protection in case of overpressure inside the tank. (overflow of thermal expansion)
 - To dump fuel in flight prior to an emergency landing. This will bring the aircraft weight below maximum landing weight. (structural protection).

193: (Q444) What is the purpose of the vent tank?

- o To ventilate the main tank before entering the tank for maintenance.
 - To prevent structural damage of the fuel tanks for over- and under-pressure.
- o This is a part of the wing that is necessary for creating lift but is so close to the tip that it is structurally not strong enough to hold fuel.

194: (Q445) How is the CG (centre of gravity point) determined?

- The CG is given by the manufacturer upon delivery. The load and balance sheet will calculate the corrected CG upon loading of fuel, passengers, cargo.
 - o The CG is constantly measured by two reference sensors in the wheel wells. Those are installed in the factory by original empty weight measurements.
 - o The CG is given by the manufacturer upon delivery and stored in the memory of the FMC's (flight management computers). The FMC calculates constantly the actual CG depending on known fuel quantity on board.

195: (Q446) As the fuel is used during flight, in what direction will the CG shift (centre of gravity point)?

- o If the cargo loading is done correctly and the passengers are seated evenly separated. The change of the CG is neglectable.
- o The CG will shift aft. This phenomenon increases with a higher wing sweep.
 - The CG will shift forward. This phenomenon increases with a higher wing sweep.

196: (Q447) What is the location for an aircraft defueling?

- o From a pressure coupling on the defueling panel. (always on the RH wing. LH wing is the fueling station).
 - From the main refuel/defuel panel. It is the same coupling.
- o By the sump drains.

197: (Q448) On a modern large aircraft how many fueling shut-off valves do we find?

- o One.
- o One for each wing.
 - One per fuel tank.

198: (Q449) What happens when the high level sensor gets wet (during fueling)?

- The level sensor will sense that this particular tank has reached his maximum level. The circuit will close the refuel valve of that tank.
 - o The level sensor will sense that this tank has reached his maximum level. The circuit will close all the refuel valves.
 - o The level sensor will sense that this particular tank has reached his maximum level. The circuit will open the cross-feed valve.

199: (Q450) What do we understand with 'pressure fueling'? Pressure fueling is a kind of fueling...
o that must be done within 25 min. To meet the minimum turn-around time of 40 minutes. There is pressure to hurry up.

- where the pumps of the delivery truck, gives the pressure to pump the fuel via hoses tot the pressure coupling.

- o where the aircraft boost pumps assist the fuel truck pumps by suction pressure. This will speed up the flow.

200: (Q451) What type of pump is mostly used as fuel tank booster pump?

- A centrifugal pump, three phase AC driven.

- o A centrifugal pump, DC electrically driven.

- o A piston pump, three phase AC driven.

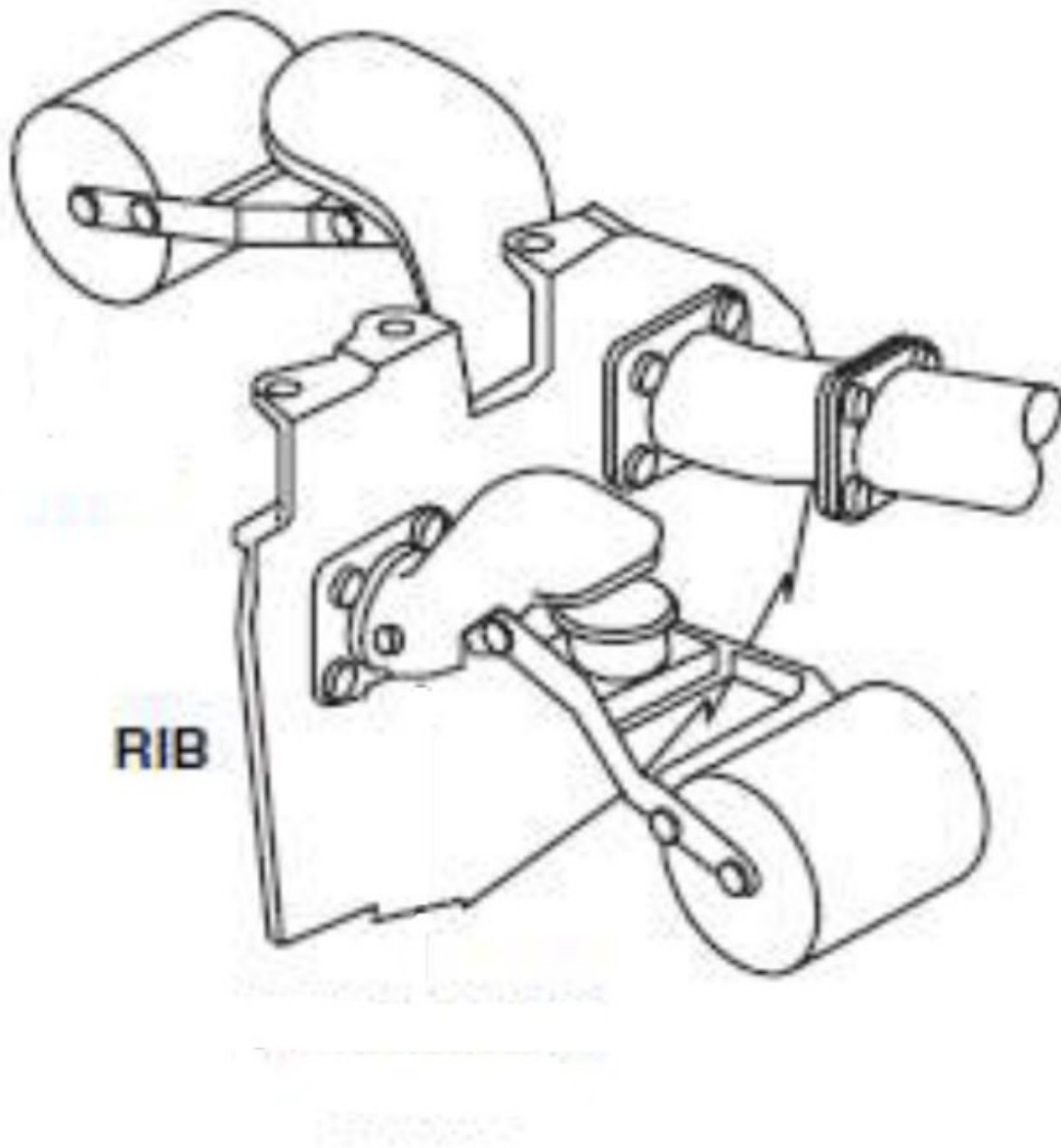
201: (Q452) What should be the flow capacity of a booster pump?

- Each pump should be capable of supplying fuel for one or more engines with sufficient fuel during all the different phases of the flight.

- o Each pump should be capable of supplying 50% fuel demand of all engines at cruise setting.

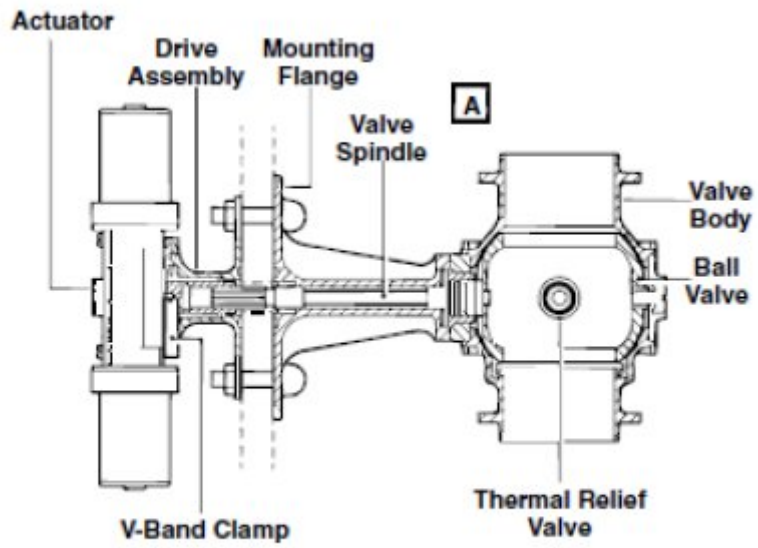
- o Each pump should be capable of supplying 20% more fuel than max demand off his on wing side engine.

202: (Q453) What is the purpose of a check valve at the outlet of the pressure pump?



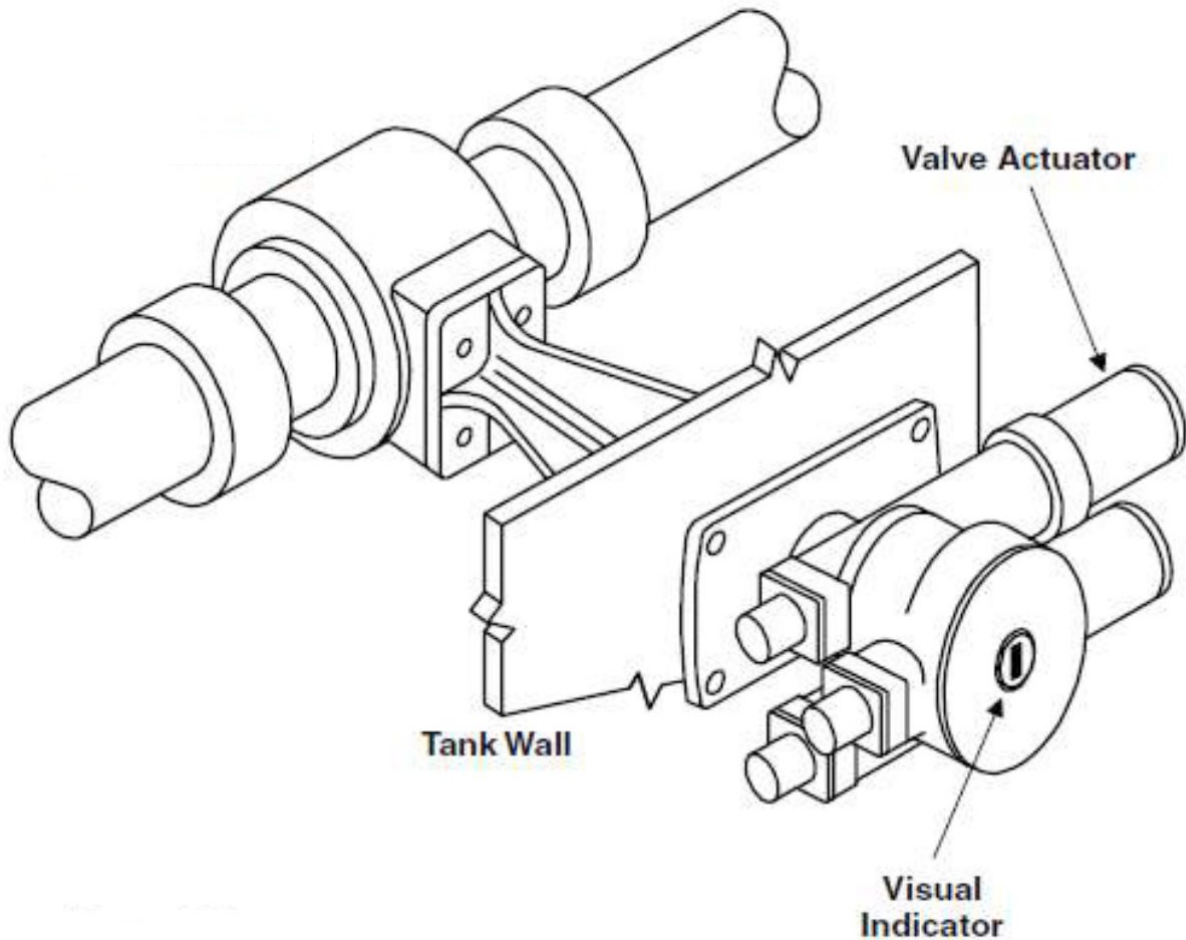
- o To prevent suction cavitation.
- o To allow removal of the pump.
- To prevent return flow from another pump.

203: (Q454) How would you call this valve?



- o The filling valve.
- o The anti-return valve.
- The fire shut-off valve.

204: (Q455) How would you call this valve?



- Cross feed valve.
 - o Tank interconnecting valve.
 - o Centre tank valve.

205: (Q456) Why is venting so important?

- o It will prevent the accumulation of moisture (water) inside fuel tanks.
- o It will prevent the accumulation of a fuel/air mixture, which could be explosive.
- It will prevent structural damage of the fuel tank. It protect against over- and under-pressure.

206: (Q457) What is a function of the vent surge tank?

- o The vent tank is used for continuous ventilation when the aircraft is in maintenance.
- o The vent tank is a high lift device.
- The vent tank will collect a fuel filling overflow of the main tanks.

207: (Q458) Why is it important to drain the tanks regular?

- o Fresh fuel contains 0,17% water (standard jet A fuel density 0,83). Too much water will give engine power problems and must be drained.
- o Corrosion! Water on metal gives corrosion.
- A lot of condense water in the tanks can freeze. This can give problems on indication and engine fuel feed.

208: (Q459) What is the purpose of fuel dumping? To be able to....

- bring down the aircraft weight below maximum certified landing weight.
- o bring down the aircraft weight to zero fuel weight.
- o empty the tanks more than normal when the aircraft is planned for maintenance.

209: (Q460) What would be a reason to install a fuel jettison system?

- Usually large aircrafts, with a big difference between max take-off in relation to max landing weight.
- o Usually large aircraft with 4 or more fuel tanks.
- o Any aircraft with a cruise range over 1500 nautical miles.

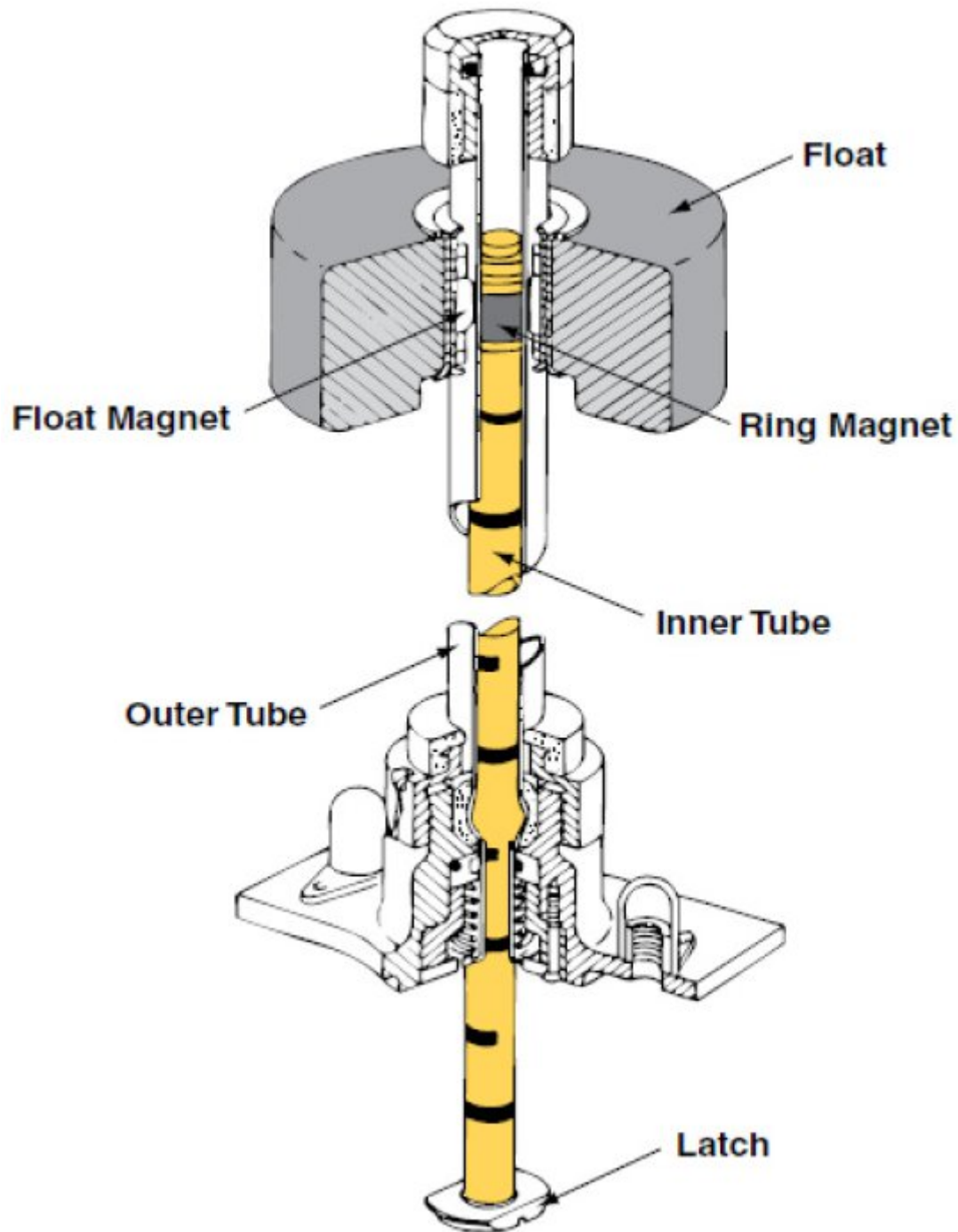
210: (Q461) What is the purpose of the cross-feed valve? It allows....

- o the fueling of the opposite wing tank on aircraft equipped with only one fueling station.
- o the isolation of the fuel system in case of an engine fire.
- the fuel boost pumps from one tank can feed the engines of the other wing.

211: (Q462) What type of fuel quantity sensors are used inside the tank of modern aircraft?

- o Floating level probes.
- o Infra-red probes.
- Capacitor type fuel probes.

212: (Q463) What is this component found on the lower side of the wing?



- o A dipstick on the inner root of the wing, to measure the remaining fuel quantity in the wing.
- A dipstick, to measure the fuel quantity in that particular wing.
- o A drain stick to drain water from the sumps.

213: (Q464) Where is the trim tank located?

- In the tail section.
- o In the wing tips.
- o In the wing box.

214: (Q465) Why does water in the fuel pose a danger?

- o The water could freeze inside the fuel tanks and block the fuel pumps.
- o The water could enter the engine fuel control unit and damage it.
- The water could freeze in the fuel filter and block the fuel flow to the engine.

215: (Q466) Where would you find the component shown in the figure below?



- o On the wing leading edge.
- o Behind the engines on the lower wing surface.
- On the lower wing surface.

216: (Q467) What is the procedure called where the fuel tank is made leak free during construction?

- o A seal procedure.

- A seal plan.
- o A leak prevention plan.

217: (Q468) What provides fuel tanks overflow for integral tanks?

- o Fuel operated baffle check valves.
- Surge tanks.
- o Sump drain valves.

218: (Q469) When it is not possible to seal the fuel tank, then there will be

- o a rigid tank installed.
- o an integral tank installed.
- a bladder tank installed.

219: (Q470) Where is the flame arrestor normally installed?

- Surge tank.
- o Outboard tank.
- o Inboard tank.

220: (Q471) Which statement is true regarding jet pumps?

- Jet pumps use fuel pressure from the booster pumps to operate.
- o Jet pumps are used to pump fuel to the jet engines.
- o Jet pumps are electrical pumps.

221: (Q472) What are pressure switches in the fuel supply system used for?

- o Monitor the fuel pressure to each engine.
- o Monitor the fuel pressure in the fuel tanks.
- Monitor the fuel output pressure of each pump.

222: (Q473) What are air release valves used for?

- o Allows air into the fuel feed line when the pumps are OFF.
- Releases trapped air inside the engine fuel feed line.
- o Releases the air pressure inside the fuel tanks during refueling.

223: (Q474) An aircraft is operating above 20000 ft. Why should the hydraulic reservoir be pressurized?

- o To prevent cooking of oil.
- o To prevent expansion.
- To prevent foaming.

224: (Q475) What is an indirect drain valve used for?

- o To drain fuel from the highest point of the tank.
- To drain fuel when the valve is not located at the lowest part of the tank.
- o To drain fuel when there is no drain valve installed.

225: (Q476) What is probable cause for a fuel tank overpressure protection to be activated?

- o The aircraft has been defueled by suction defueling.
- o The fuel tanks have been overfilled.
- The NACA vent scoop is blocked.

226: (Q477) What is the purpose of fuel jettison?

- o To remove all the fuel from the tanks before an emergency landing, to reduce the fire risk.
- To reduce the aircraft's landing weight.
- o To remove the fuel from the trim tanks quickly in case of a severe unbalance of the aircraft.

227: (Q478) What must be done to transfer fuel from one fuel tank to a fuel tank in the other wing?

- o All boost pumps must be on.
- The crossfeed valve must be opened.
- o Not possible.

228: (Q479) Engines receive fuel from, which fuel tank?

- o Collector
- o Always the centre wing fuel tank
- It's own main tank

229: (Q480) Why do aircraft have a fuel crossfeed system?

- To balance the fuel between the Left and Right tank.
- o Only for ground refueling operations, to fuel the aircraft to both Left and Right tanks from 1 location.
- o To ensure that in all flight phases; the Engine Nr1 receives fuel from RH wing tank and that Engine Nr2 receives fuel from the LH wing tank.

230: (Q481) What does a fuel density of 1.0 indicate?

- There is water in the fuel.
- o The wrong type of fuel is in the tanks.
- o There is no water in the fuel.

231: (Q482) How is the amount of Fuel indicated to the pilots?

- Weight (Kgs or Lbs)
- o Volume (m³)
- o Height (cm or inch)

232: (Q483) How is the fuel quantity measured in the manual way?

- With dipstick.
- o From the top of the wing visual.
- o The electrical resistance between two points.

233: (Q484) What does the fuel quantity system probes measure?

- o The quantity of liquid in the fuel tank.
- o The temperature of the fuel.
- The weight of the fuel.

234: (Q485) Which control switch would you never find on a refueling control panel?

- Fuel booster pump switches.
- o Battery switch.
- o Fuel valve switches.

235: (Q486) If there is an overfill condition in the refueling system and sensors are not working, the fuel will spill out ...

- onto the ground.
- o in a special overspill fuel tank.
- o into the surge tank.

236: (Q487) Is it possible to refuel the aircraft if the refuel valve has an electrical failure?

- o No.
- Yes.
- o Only after replacing the valve.

237: (Q488) Where is also a fuel tank located on aircraft fitted with longitudinal balance fuel systems?

- o Wing tips.
- o Centre wing box.
- Stabilizer.

238: (Q489) What is the purpose of longitudinal balance fuel systems?

- Keep the centre of gravity as close as possible to the ideal position.
- o Carry more fuel.
- o Trim the aircraft so that there is no need for trimable horizontal stabilizers.

239: (Q623) Most modern aircraft have in the cockpit a diluter demand oxygen system. Explain this function.

- Is a system that delivers an air mixture through the mask each time the pilot inhales.
- o Is a system that delivers an nitrogen mixture through the mask each time the pilot inhales.
- o Is a system that delivers 100% O₂ to the mask each time the pilot inhales.

240: (Q624) How many oxygen equipments do we have on board of a modern airliner?

- One O₂ bottle system for the cockpit, oxygen generators for the cabin. Portable oxygen bottles for flight attendants in case of emergency.
- o One O₂ bottle system for the cockpit, oxygen generators for the cabin.
- o One or more bottles delivering oxygen to the cockpit and the cabin.

241: (Q625) Of what materials are oxygen cylinders made?

- Aluminium - Steel - Composite
- o Aluminium - Steel - Copper
- o Aluminium - Copper - Composite

242: (Q626) What will happen if, for any reason, the oxygen bottle pressure arise critically high?

- A frangible disc will break at a set pressure. This will discharge the bottle to ambient.
- o An over press-valve is installed on the head of the cylinder. The valve will open and discharge the overpressure overboard. The over press-valve closes again when the pressure is within limits.
- o A warning light will be set in the cockpit. The pilots should set their O₂ masks in auto emergency flow mode until the pressure drops below critical value and the alarm the stops.

243: (Q627) Where are the passengers oxygen generators stored on a modern passenger aircraft?

- o Under the seat next to the life jacket.
- In the ceiling or in the overhead bins just above the passenger or attendant seat.
- o In the E&E compartment.

244: (Q628) How is an oxygen generator set to on?

- o By the flight attendants on their control station.
- o By the flight areas from the cockpit.
- By pulling at the mask via a small cable you release a firing pin in the generator. This will start the chemical process for making O₂.

245: (Q629) When is the passenger oxygen generator activated?

- When any mask is pulled down to face level, the activation pin is pulled out by the lanyard, releasing the firing pin.
- o The oxygen generators are activated by the crew when the masks are within passengers range.
- o The oxygen generator is deployed after activation of the portable oxygen cylinders by the flight crew.

246: (Q630) How can you check that a passengers oxygen generator is empty?

- o By inspecting the pressure indicator.
- By inspecting the firing pin position and checking if the heat sensitive tape became black.
- o By weighing the oxygen generator and compare the last weight data.

247: (Q631) How and where is the oxygen pressure regulated?

- o A medium pressure regulator to 500psi is installed on the oxygen bottle. A low pressure reducer to 40psi is installed in the mask.
- A low pressure reducer regulates 1800psi bottle pressure to 50-75 psi pressure for delivering to the mask. The reducer is installed on or near the oxygen bottle.
- o The bottle pressure is delivered to the mask. Inside the mask there is a regulator that reduces the pressure to 40 psi each time the pilot inhales.

248: (Q632) How is the oxygen pressure from a cabin oxygen generator regulated?

- o Each oxygen generator has a pressure reducer installed on his exit. Pressure will be regulated to 40 psi.
- There is no regulation, the pressure is equal to the chemical burning in the generator.
- o There is a small 40 psi relief valve on the exit of the oxygen generator, that will discharge if oxygen production exceeds that pressure.

249: (Q633) Cabin chemical oxygen generators are located in?

- o The overhead bins.
- o The cargo hold.
- The passenger service units.

250: (Q634) Oxygen for the flight crew of commercial aircraft comes in which form?

- o Liquid oxygen.
- Gaseous oxygen.
- o Chemical oxygen generators.

251: (Q635) What is the chemical used in chemical oxygen generators?

- Sodium chlorate and iron
- o Ozone
- o Sodium hydroxide

252: (Q636) How does an 'on board oxygen generation system' (OBOGS) produce oxygen?

- o By electrolysis of water.
- By using molecular filters.
- o By using sodium chloride.

253: (Q637) In which type of aircraft is liquid oxygen used?

- Military aircraft.
- o Aircraft flying at very high altitudes.
- o Most large passenger aircraft.

254: (Q638) The pressure regulator on an oxygen demand system regulates the pressure to:

- o 90 PSI
- o 400 PSI
- 70 PSI

255: (Q639) When the N/100% selector is placed in the 'N' position on a diluter demand regulator, what is the oxygen flow supplied?

- A mixture of oxygen and cabin air while the user is inhaling.
- o A mixture of oxygen and cabin air at a constant flow.
- o 100% oxygen while the user is inhaling.

256: (Q640) Is it possible to regulate the amount of oxygen from a chemical oxygen generator?

- No.
- o Only the crew.
- o Yes.

257: (Q641) A green disk on the side of the fuselage is missing, what does this indicate?

- o The maximum pressure in the oxygen supply lines has been exceeded.
- o The oxygen bottle pressure is below operational limits.
- The maximum pressure in the oxygen cylinder has been exceeded.

258: (Q642) How can you see if a chemical oxygen generator has been expended?

- By a coloured band of thermal paint.
- o By a pressure indicator.
- o By a pop-out indicator.

259: (Q643) Where can you find a direct reading pressure gauge on an oxygen system?

- o On the flight deck.
- o On the oxygen system control panel.
- On the oxygen bottle.

260: (Q644) Which indication of a used chemical oxygen generator is provided?

- o The pressure indicator will be in the red zone.
- o No indication, only by weighing the oxygen generator the status can be determined.
- A change of color of a band of thermal paint around the case.

261: (Q645) What is a big advantage in using pneumatic power?

- o It is the cheapest technique to use. Generating hydraulic or electrical power cost extra fuel money while the engine is nearly a unlimited source pressurized hot air.

- The transfer of energy has a better to power/weight ratio than electrical or hydraulic power systems.
- o It is the cheapest technique of power transfer to build.

262: (Q646) What are the biggest consumer of pneumatic air, during flight?

- Air conditioning packs, anti-ice of wings and engines.
- o Air-conditioning packs, engine reverser actuators.
- o Air conditioning packs, engine starters.

263: (Q647) When is pneumatic power used as a thermal or mechanical power source?

- o Pneumatic systems are only used as an emergency power source.
- o Pneumatic systems are used as power source for aircraft systems with heating requirements only.
- Pneumatic systems are used as a power source for aircraft systems with high thermal or mechanical power requirements.

264: (Q648) Which sources can provide pneumatic power to the aircraft in flight?

- o Engines - RAT (ram air turbine)
- Engines - APU
- o Engines - Nitrogen reserve bottles

265: (Q649) Which sources can provide pneumatic power to the pneumatic ducts?

- Engines - APU - Pneumatic ground group. (Mobile or static)
- o Engines - RAT (Ram air turbine)
- o Engines - APU - Air conditioning group.

266: (Q650) Can the APU deliver pneumatic power in flight?

- On most modern aircraft the APU can deliver pneumatic power but limited in flight altitude. (Below 20,000ft)
- o On most modern aircraft the APU can deliver pneumatic power up to cruising altitude.
- o No, an APU cannot deliver pneumatic power.

267: (Q651) Why is sometimes air taken from the low compressor stage and other times from the high stage compressor?

- o Because the mixture of both low and high stage gives the correct temperature.
- Because there is such a great variation in air output availability between idle power and high power.
- o Because on each stage you may only take a limited amount of air.

268: (Q652) When do we take air from the low compressor stage and when from the high stage compressor?

- o Low idle = high stage, high power = high stage.
- o Low idle = low stage, high power = high stage.
- Low idle = high stage, high power = low stage.

269: (Q653) How is the engine bleed air controlled in temperature?

- The engine bleed air is delivered to the pneumatic system passing through a heat exchanger. The regulated cold fan air flow over the exchanger will maintain a steady temperature of the bleed air.
- o The engine bleed air is mixed with some cold fan air to obtain a steady temperature of the bleed air.
- o Before the engine bleed air is delivered into the pneumatic system it passes a heat exchanger. In which the engine air heats the bleed air.

270: (Q654) How is the bleed air from an APU regulated?

- The APU bleed air is tapped from the load compressor.
- o The APU bleed air-port is fitted with a pressure regulating valve. The pressure is regulated to 45psi.
- o The APU will change its speed to keep the outlet pressure to a constant 45 psi.

271: (Q655) Compared to other power sources, what is the benefit of using pneumatic systems?

- o A fire can easily be put out by turn off the supply.
- Power to weight ratio is better.
- o Easier to detect leaks.

272: (Q656) What type of pneumatic system would have a water separator installed?

- o Engine bleed air system.
- High pressure system.
- o Low pressure system.

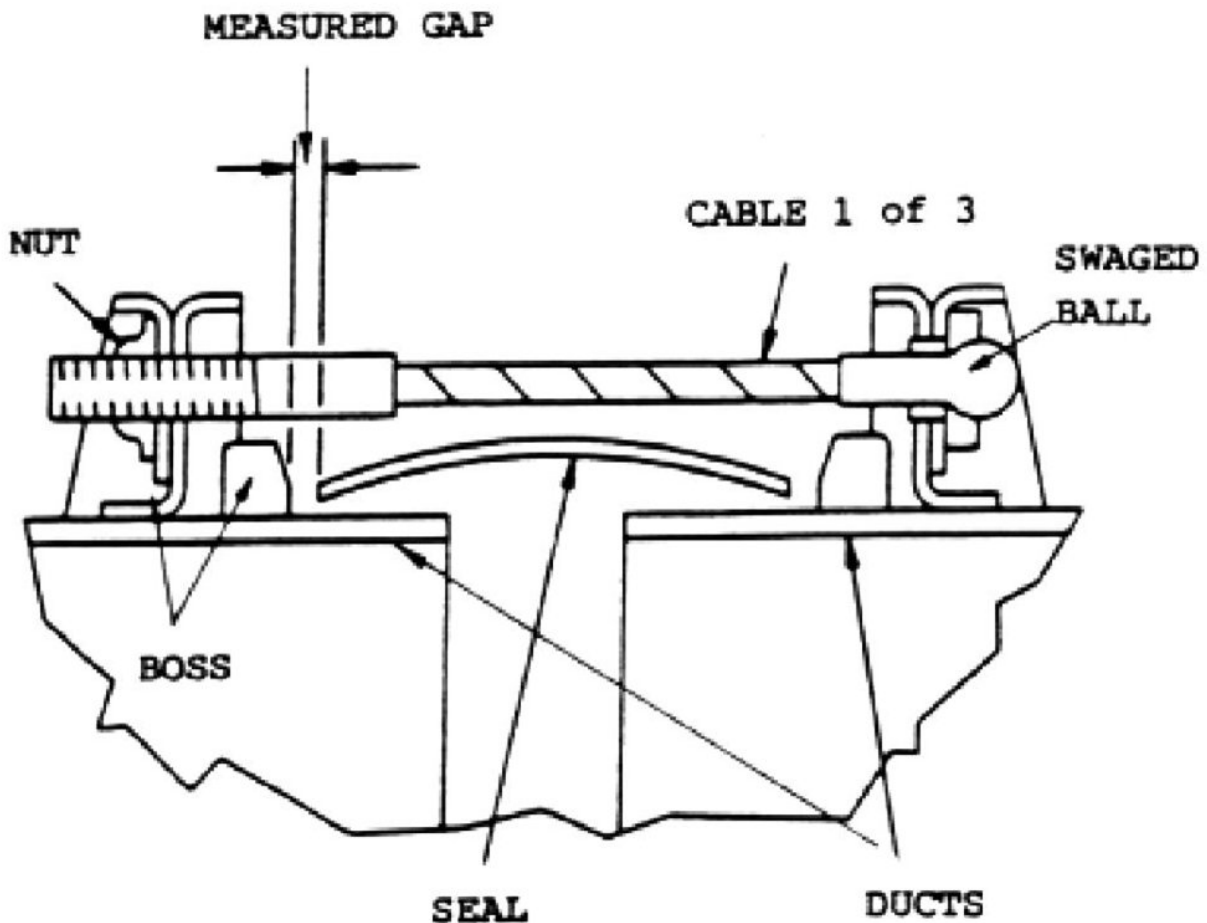
273: (Q657) What is a low pressure pneumatic system used for?

- o Power the flaps.
- o Power the landing gear.
- Power the gyro instruments.

274: (Q658) The bleed air from the APU can be used:

- o Up to 18.000m
- o At all altitudes.
- Up to 18.000ft

275: (Q659) When are cable attachment type of duct fitting joints used?



- o Large diameter ducts.
- Ducts where large temperature changes exist.
- o Ducts where high pressure changes exist.

276: (Q660) On a twin spool auxiliary power unit, what is controlled by the VGV's?

- o A pressure regulating valve.
- The speed of the turbine and also of the compressor.
- o A load compressor.

277: (Q661) Which systems are NOT used for duct leak detection?

- Thermocouples.
- o Thermal switches.
- o Manifold failure loops.

278: (Q662) At low altitudes, what creates the vacuum for the water and waste system?

- A vacuum pump.
- o The pressure differential between the waste tank and the outside of the aircraft.
- o The pneumatic system using venturuses.

279: (Q663) In which way does the pneumatic system interface with the fire protection system?

- o A fire in the bleed supply system activates the fire extinguishing system.
- Pulling the fire handle of one engine turns off its bleed supply.
- o Pulling the fire handle on one engine turns off the complete bleed air system.

280: (Q664) Which probe is heated by hot bleed air?

- o Angle of attack probe.
- Total air temperature probe.
- o Ice detection probe.

281: (Q665) Where is the warm water in the toilets coming from?

- o It is tapped from the nearby galley. Each galley has a water boiler.
- o From the hot water distribution tank.
- It's locally heated. Each toilet has a warm water heater.

282: (Q666) How do you know that the potable water tank is fully serviced?

- o The needle on the instrument start to vibrate at the full sign.
- o You hear the difference of sound of the filling pump from the servicing truck. The pump makes a grumping noise since it cannot overcome the over-press build up.
- By opening the fill valve you connect the overflow line with ambient. When the overflow spills out, the tank is full.

283: (Q667) How do you drain the potable water system?

- o By opening all water taps and let the water flow to waste water, until water tanks are empty.
- o You cannot drain the potable water system
- By opening the water tank drain valves.

284: (Q668) Where is the waste water of the lavatory sinks draining to?

- It will be drained to ambient via a heated drain mast.
- o It will be drained to a 10 gallon tank below the sink, and drained during water and waste servicing.
- o It will be drained into the toilet system reservoir.

285: (Q669) How would you describe the water system on a modern passenger jetliner?

- o An open system with local water tanks installed in the ceiling close to the galleys and toilets. (The tanks can be connected)
- o An open system with local water tanks installed in the ceiling close to the galleys and toilets. (The tanks are separated via siphon system, so only connected during the filling)
- A closed system with at least one water tank pressurized usually installed below under the cabin floor.

286: (Q670) Why is the potable water tank pressurized?

- o Because with altitude the outside pressure would provide an unsteady water flow out of the water taps.
- o Because the water tank is installed in an unpressurised zone.
- Because the water taps are located at a higher level than the potable water tank.

287: (Q671) How is the potable water tank is pressurized?

- o Each water tank has a small electrical compressor.

- Each tank is pressurized by the pneumatic system of the aircraft. Some aircraft models have a backup electrical compressor.

- o On ground the potable water tanks are pressurized by an electrical compressor. In flight the differential atmospheric pressure will provide the tank pressurization.

288: (Q672) Explain the reason why the water distribution lines are protected.

- o Only the first part of the distribution is electrically heated because the water tank is always installed outside the pressurized (cold) fuselage.

- Because the distribution lines often run close to the exterior fuselage skin and can locally get frozen.
- o Some sections need to be heated to obtain a stable temperature true through the distribution lines. This will ensure a good flow.

289: (Q673) How would you describe a vacuum toilet system?

- o A system where the waste is moved to a central waste tank via a vacuum pressurized water system.

- o A vacuum pump will move the waste from the bowl into the tank just below.

- A system where the waste is moved to a central tank by means of suction.

290: (Q674) When is the vacuum blower working?

- o When you flush, while the aircraft is in ground.

- o Always when you flush.

- When you flush, while the aircraft is on ground or below 16000 ft.

291: (Q675) In a vacuum operated toilet system, where is the 'flush' water coming from?

- o Recup water from the waste tank below the bowl.

- o Each toilet has a small reservoir that will be filled during servicing.

- From the potable water system.

292: (Q676) What is the reason that some large aircraft have 2 servicing panels for the water?

- o To service 1 tank but from two locations.

- o To service 2 tanks.

- To be able to drain the system completely.

293: (Q677) Greywater from the sinks and galleys will be....

- o recycled and used to flush the toilets.

- dumped overboard.

- o collected in a waste tank.

294: (Q678) An aircraft fitted with 2 potable water pumps will use the pumps as follows:

- o One pump services the forward cabin, the other the aft cabin.

- One pump is active, the other standby.

- o Both pumps work together.

295: (Q679) What is the toilet drain plug flapper valve used for?

- o Prevents the waste tank from emptying in flight.

- o Allows the tank servicing to be done via the drain hose.

- Prevents the draining of toilet waste of tank when the cap is open.

296: (Q680) What happens if the safety plug (doughnut) is not fitted to the drain pipe?

- The drain cap cannot be closed.
- o The waste tank will leak.
- o A warning light will illuminate on the flight deck.

297: (Q681) Which of the following statements is true:

- o Toilet waste does not pose a danger to the aircraft structure.
- Composite materials are used to reduce the chance of corrosion damage.
- o Fumes from toilet waste tanks do not affect the structure .

298: (Q682) An on-board maintenance system is used....

- to confirm faults in several aircraft systems
- o to repair an engine anomaly in flight
- o to repair the airframe on the ground

299: (Q683) The most important system where build-in test data is stored is:

- o the flight data recorder system
- central maintenance computer system
- o engine indicating and crew alerting system

300: (Q684) A build-in test which does not disturb system operation is called:

- cyclic test
- o system test
- o specific test

301: (Q685) The validity of data, loaded into an aircraft can be checked by:

- o the primary flight display (PFD)
- o the navigation display (ND)
- the command display unit (CDU)

302: (Q686) The data loading system is used for....

- o data loading only.
- data loading and downloading.
- o data down loading only.

303: (Q687) Navigation database loaded into an aircraft contains of....

- o airports, waypoints, holding patterns and structural monitoring.
- airports, waypoints, runways, marker beacons and country name.
- o airports, waypoints, country names and engine performance data.

304: (Q688) The validity of the current data loaded into an aircraft can be checked....

- o on the data loader.
- by using the FMS MCDU.
- o only before loading.

305: (Q689) Engine health monitoring on modern aircraft is achieved by:

- the low cycle fatigue counter (LCFC) or engine monitoring recorder
- o the flight management computer
- o the cockpit EICAS display

306: (Q690) A typical parameter which is monitored by a health and usage monitoring system is:

- o airspeed
- aircraft stress of fatigue
- o static air temperature

307: (Q691) Structural monitoring of the airframe is achieved by:

- strain gauges on the airframe
- o a yearly inspection for skin deformation
- o the flight control computer

308: (Q692) Which bite test is initiated by the engineer?

- o Start-up bite
- Interruptive bite.
- o Continuous bite

309: (Q693) Which type of messages are relevant to the aircraft minimum equipment list (MEL)?

- Status messages
- o Fault codes.
- o Maintenance Memo

310: (Q694) In a 3-channel system, what happens if the command channels fail?

- o The complete system shut-down.
- o The monitor channel takes over.
- The stand-by channel takeover.

311: (Q695) Besides data for the central maintenance system, what else can be uploaded via the data loading system?

- Navigational database.
- o Entertainment data.
- o GPS database.

312: (Q696) Early data loaders used magnetic tapes to store information, what was the biggest problem with these tapes?

- o They were slow
- They stretched causing false data.
- o They required large carry-on equipment.

313: (Q697) Aircraft fault history can be read and copied from?

- o The Communication System Recorder.
- o The Navigation System Database.
- The Central Maintenance Computer.

314: (Q698) The system which can display aircraft maintenance manuals and technical log is called:

- o central maintenance computer
- o crew alerting system
- flight bag system

315: (Q699) What type of data link is used by the electronic library system to communicate with ground operations?

- Bidirectional gate link
- o Mono-directional Ethernet link
- o Arinc 429

316: (Q700) How is the information in the electronic library organized?

- o Chronological
- Task Oriented
- o Function-oriented

317: (Q701) Who can use the flight deck printer? (1) Pilots; (2) Ground engineers; (3) Cabin crew

- o 1 + 2 + 3
- 1 + 2
- o 1 + 3

318: (Q702) Besides speed, temperature and pressure, what else is the engine monitored for?

- o Load
- o Thrust
- Vibration

319: (Q703) On modern aircraft, which mandatory component is used to monitor aircraft structure?

- o Quick access recorder.
- o Central maintenance system.
- Flight data recorder.

320: (Q704) During hard landing, what determines the degree of how hard the landing was?

- o The weight of the aircraft.
- o The aircraft speed on touch down.
- How much 'Gs' were encountered.

321: (Q705) Engine data is routed for display to the flight deck by:

- o a crew wifi lan module.
- AFDX cables and routers.
- o a RJ45 8 pins connector.

322: (Q706) A typical IMA function is to generate a synoptic system page. This means:

- o auto brightness control in the cockpit
- a system display in block diagram format
- o automatic system control

323: (Q707) The arinc 653 specifications are developed for:

- o The IMA data communication
- The IMA operating system
- o only for maintenance purposes

324: (Q708) A core processing module consist of:

- different processing submodules
- o one router and a maximum of 24 AFDX cables
- o only one router

325: (Q709) The arinc 664 specifications are developed for:

- data communication
- o non-critical flight data only
- o a maintenance wifi connection

326: (Q710) Avionics full duplex (AFDX) cable can be recognized by:

- 4 connector pins
- o 8 connector pins
- o 16 connector pins

327: (Q711) A router is:

- o an aisle inside the aircraft cabin
- o a cable consisting of more than 3 AFDX cables
- a connecting point for AFDX cables inside a network

328: (Q712) The function of a network remote switch is:

- o To switch the network power on-off.
- To change network data into another format.
- o To load the software into the processing resource cabinet.

329: (Q713) Functions integrated in IMA are:

- Basically for all aircraft systems.
- o Only for hydraulic powered systems.
- o Only for electrical powered systems.

330: (Q714) In an aircraft which has Integrated Modular Avionics.

- One 'Black' box hosts multiple application / functionalities.
- o Each functionality is split in two dedicated 'black' boxes for redundancy
- o One 'Black' box cover one functionality.

331: (Q715) In an aircraft which has Integrated Modular Avionics....

- o all sensors submit information to the flight deck, using WIFI.
- Flight Critical Information is processed by the IMA system.
- o each passenger seat is equipped with an independent IMA unit, which can be used for In Flight Entertainment.

332: (Q716) Functions integrated in IMA (Integrated Modular Avionics) are?

- o Functions related to the cockpit displays
- o Only flight control functions.
- Basically all aircraft systems.

333: (Q717) One of the main advantages of Integrated Modular Avionics (IMA) is?

- o More computers on board, which result in faster data communication.
- Less computers with more applications on board, which result in weight savings.

o More computers on board, which result in more system automation.

334: (Q718) The Boeing common computing resource (CCR) consists of:

- o 2 General processor modules
- o 16 General processor modules
- 8 General processor modules

335: (Q719) Software which is used in IMA comply with:

- o Arinc 429 specifications
- Arinc 653 specifications
- o Arinc 100 specifications

336: (Q720) Three major elements of the common core system are:

- o Computing Resource Cabinet, RJ45 connector network, remote data concentrators.
- o Computing Resource Cabinet, Arinc 429 Network, Remote Data concentrators.
- Computing Resource Cabinet Arinc 664 network, Remote data concentrators.

337: (Q721) Airborne electrical AFDX cables are connected with:

- o Fibre-optic couplings.
- 4-pins quadrax connections
- o 8-pins RJ-45 connections

338: (Q722) For an Arinc 664 network, the data transport rate is:

- o 10 Megabits per second
- 100 Megabits per second
- o 1 Gigabits per second

339: (Q723) The purpose of an AFDX switch is:

- o To have redundancy when the main switch fails.
- o To switch the system power on-off
- To interconnect different modules or devices.

340: (Q724) A computer internet protocol (IP) address consists of:

- o 4 Bits
- 32 Bits (4Byte)
- o 1 Bit

341: (Q725) In most transport aircraft, the cabin systems can be managed from:

- o the passengers seats
- the cabin attendant panel
- o the cockpit

342: (Q726) A passenger control unit is installed:

- on the passenger seat
- o below the cabin attendant panel
- o in the aircraft cockpit

343: (Q727) In modern aircraft, the passenger manifest (list with all passenger names) can be found?

- o only on the ground at the airport of departure
- loaded in the cabin network server
- o on a paper list in the cockpit

344: (Q728) The retractable video display units are operated by:

- o the passenger control unit
- the flight attendant control panel
- o the cockpit crew via the display management control panel

345: (Q729) The cabin monitoring system consist of:

- o inflight entertainment system and cabin video monitoring system
- cockpit door surveillance system and cabin video monitoring system
- o main multiplexer and seat electronics box

346: (Q730) The cockpit door surveillance system is used by:

- o the cabin crew
- the cockpit crew
- o only the business class passengers

347: (Q731) The purpose of the cabin video monitoring system is:

- o to monitoring the right use of the passenger control unit
- to detect unruly passengers and potential threats
- o to monitoring the galley area's and to verify that cabin attendants and (or) passengers are not smoking.

348: (Q732) Which of the following functions is also an emergency functionality?

- o Passenger Call System
- Passenger Address
- o Pre-recorded announcements.

349: (Q733) In modern aircraft, the cabin systems can be managed from?

- The Cabin Attendant Panel
- o The P5 panel in the Cockpit
- o Each Passenger Control Unit

350: (Q734) The cabin interphone system is used for communication between....

- o cabin crew and passengers.
- cabin crew and flight crew.
- o passengers and flight crew.

351: (Q735) The cabin video monitoring system consists of....

- o information signs and cabin zone units.
- o a passenger service module and a video camera.
- cockpit door surveillance and cabin video monitoring.

352: (Q736) The cockpit door surveillance system is used by....

- the flight crew.
- o the cabin crew.

o air marshall.

353: (Q737) What is the purpose of the cabin network server?

- To give access to pre-departure and departure ports.
- o To connect the passenger control unit to the cabin interphone system.
- o To connect the passenger service module to the HF communication radio.

354: (Q738) Where is a passenger control unit used for?

- Selecting audio channels and reading lights.
- o Communication between passengers and flight crew.
- o Control the area lighting.

355: (Q739) What is a master call module?

- o A part of the VHF communication radio system.
- o A part of the cabin interphone system.
- A light sign for the emergency exits.

356: (Q740) Typical location of the Passenger Control Unit (PCU) is, in the:

- Passenger seat.
- o Avionics bay.
- o Overhead Bin, above the passenger.

357: (Q741) The ability to send and receive emails by passengers is a typical example of:

- A cabin network System/Server
- o A public address unit
- o Common Core System

358: (Q742) Cabin surveillance and cabin video monitoring can be displayed in the cockpit on the....

- o electronic flight instruments system.
- o multipurpose control display unit.
- electronic flight bag.

359: (Q743) During a flight the InFlight Entertainment System (IFE) receives and transmit data, using?

- Satcom
- o HF
- o ILS

360: (Q744) When a modern aircraft is on the ground and parked at a gate. The InFlight Entertainment (IFE) system can receive and transmit data, using?

- o An AFDX cable connection
- WIFI
- o HF Radio

361: (Q745) Where can the passenger data base be found?

- o Only on a paper list in the cockpit for security.
- Loaded in the cabin network server unit.
- o Only at the airport of departure.

362: (Q746) The dimmable window function is managed by....

- the cabin attendant panel and cabin zone unit.
- o the passenger service module.
- o the passenger control unit.

363: (Q747) A change of the number of cabin seats means that....

- o less master call light modules are needed.
- the CSSC software must be updated.
- o more data concentrators must be installed.

364: (Q748) The Cockpit Door Surveillance System is?

- a system to assist the flight crew to identify a person requesting access to the flight-deck.
- o A synoptic page, indicating if all doors are closed, meaning ready for flight.
- o used to assist the air-bridge operator to align the air-bridge with the cockpit door.

365: (Q749) The Cabin Video monitoring system is used....

- o to assist pilots in case of emergencies in determining the structural condition of the cabin/fuselage.
- to detect unruly passengers.
- o to record behaviour of passengers and cabin crew, and can be used as evidence in legal proceeding.

366: (Q750) Inside modern transport aircraft, two main data networks are defined. These networks are....

- o crew wireless lan and open data network
- avionics or isolated data network and open data network
- o isolated data network and crew wireless lan

367: (Q751) The aircraft flight data recorder which stores critical aircraft data, is connected to:

- o the SATCOM system directly
- the isolated data network
- o the open data network

368: (Q752) To upload data from a maintenance laptop to the isolated data network you must:

- have the correct security configuration installed
- o have a connection directly to the Ethernet gateway module
- o have a connection to the common data network

369: (Q753) Non-critical aircraft data is accessible via the:

- o common data network
- o isolated data network
- open data network

370: (Q754) The satellite communication system is accessible for the cabin through:

- the open data network
- o the isolated data network
- o the common data network

371: (Q755) The electronic flight bag system can help the flight crew do calculations for:

- o in-flight navigation

- o engine control functions
- aircraft weight and balance

372: (Q756) A laptop for retrieving maintenance data must be physically connected to:

- o the open data network
- the isolated data network
- o the EFB electronic unit

373: (Q757) One of the functions integrated in IMA is:

- wifi for non-critical flight data exchange
- o wifi for fly by wire control
- o wifi for critical flight data exchange

374: (Q758) The satellite communication (SATCOM) system is connected to?

- o The isolated data network.
- The open data network.
- o The In Flight Entertainment system, only.

375: (Q759) The Electronic Flight Bag (EFB) can be used for?

- Both answers are correct.
- o Weight and Balance calculations.
- o Determining the maintenance history of the aircraft.

376: (Q760) Where is the Electronic Flight Bag used for?

- o To interact with the critical flight systems and to assist the pilot in an optimized flight-path.
- To reduce and replace paper-based reference material, used by pilots.
- o To communicate with the Flight-Operations department of the airline.

377: (Q761) Where is the cockpit electronic flight bag used for?

- Top keep both, navigational charts and airport diagrams and the flight crew operating manual.
- o To keep the flight crew operating manual.
- o To keep navigational charts and airport diagrams.

378: (Q762) A dedicated maintenance laptop using WIFI can be used for?

- o Installing newly released navigation software.
- Accessing aircraft fault data.
- o Accessing to see and delete data from the Aircraft File Server.

379: (Q763) Can the flight crew of an Airbus A380 or Boeing 787 access real-time meteorological information?

- o No
- o Yes, but only when an HF connection is available.
- Yes, when a datalink is available.

380: (Q764) Wireless fidelity (wifi) is used for:

- o flight critical data
- aircraft non-critical data
- o only for maintenance purposes

381: (Q765) What are the reasons for automatic deployment of emergency oxygen? 1. Cabin depressurization. 2. Smoke in the cabin. 3. Insufficient cabin air in-flow.

- 1 + 3
- o 1 + 2 + 3
- o 1 + 2

382: (Q766) A ventilation fan has shut-down due to an overheat condition. The crew can...
o not restart the fan in flight. Ground crew must reset the system first.

- restart the fan after it has cooled down.
- o restart the fan immediately by resetting the control switch to 'off' and 'on' again.