Question block created by wizard

This exam contains 140 questions.

1. The variable incidence stabilizer provides....

a. short term pitch change.
b. Roll Control.
c. long term pitch change.

2. What type of aerodynamic balance system is shown in the figure below?

a. Aerodynamic balance panel
b. Inset Hinges
c. Horn Balance

3. Where are elevons installed?

a. To each side of the aircraft on the leading edge of the wing.
b. To each side of the aircraft on the trailing edge of the wing.
c. To one side of the aircraft on the trailing edge of the wing.

4. What has the biggest effect on the speed of sound?

a. Humidity.
b. Pressure.
c. Temperature.

5. What is the effect on a supersonic airstream passing through a normal shock wave?

a. Its speed is reduced to ZERO.
b. It slows down to subsonic speed.
c. It increases in speed.

6. What is the main disadvantage of wing sweep back?

a. Wingtip stall before the wing roots.
b. Less lift than a straight wing.
c. Not useable on T-tailed aircraft.

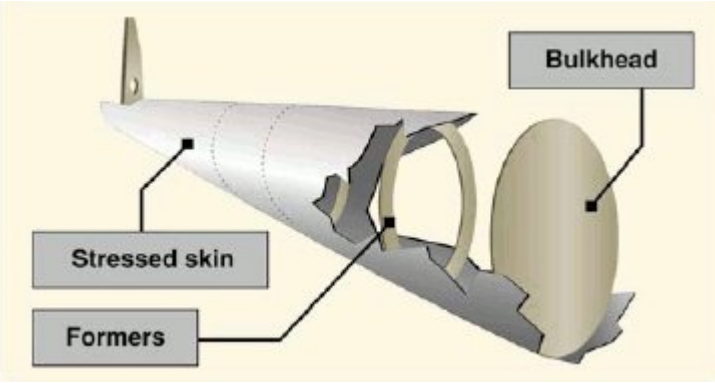
7. Why do job cards mention zones?

a. They will identify a certain area of the aircraft to inspect or to locate the specific work area.
b. The zone codes are the primary digits to find the part location in the parts catalogue.
c. These are just codes for the engineering department to analyse the damage found in certain areas during maintenance.

8. What is the function of the Static dischargers?

a. They will protect the communication systems against a lightning strike.
b. They function as a communication antenna.
c. In case of a static charge they lead the electrical energy off the aircraft.

9. What type of construction is shown in the figure below?



a. Cantilever construction.
b. Semi-monocoque
c. Monocoque

10. What is the most widely used assembly method in aircraft construction?

a. Bonding.
b. Solid rivets.
c. Blind rivets.

11. "DINITROL" and "LPS-3" are what kind of surface protection?

a. Phosphate coating.
b. Water displacing fluid.
c. Paint.

12. What is commonly used to level an commercial aircraft?

a. A surveyors tape measure.
b. A plump bob and spirit level.
c. A clinometer.

13. Where would you find rapid depressurization panels?

a. The wall linings of the cargo hold.
b. In the pressure bulkheads.
c. The bottom of the passenger cabin side walls.

14. When an aircraft is transporting dangerous goods ....

a. there will be special flight conditions.
b. there is no need for special precautions.
c. there will be separated goods in special containers.

15. The upper wing surface is made of AL-7075 to withstand ....

a. tension loads.
b. shear loads.
c. compression loads.

16. Access into an integral fuel tank by:

a. Manhole covers on the upper wing surface.
b. There is no access into integral tanks they are sealed units and are removed as a whole.
c. Manhole covers on the lower wing surface.

17. What kind of stability provides the horizontal stabilizer?

a. Directional.
b. Lateral.
c. Longitudinal.

18. How is the vertical stabilizer attached to the fuselage?

a. Riveted
b. Bonded
c. Bolted

19. Elevator range of movement is:

a. Larger in the up movement.
b. The same up and down.
c. Smaller in the up-movement.

20. How can "FLUTTER" of the flight control surfaces be reduced?

a. By mass balancing.
b. By aerodynamic balancing.
c. By using trim tabs.

21. Titanium and steel are used in which areas of the nacelle?

a. Combustion chamber and exhaust.
b. Fan cowl doors.
c. The intake and exhaust.

22. The purpose of a fire seal is to prevent....

a. fire reaching the components contained inside the firewalls.
b. fire reaching the passenger cabin.
c. hot air from the engine core circulating in the fan case area.

23. The RAM air supply is used....

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

24. Where is the ground air conditioning cart used for?

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

25. The EASA requirement for air conditioning systems state that the cabin air must be exchanged:

a. Once every hour.
b. Every 3 to 5 minutes.
c. 3 to 5 times a minute.

26. Before the air from the air conditioning pack enters the cabin:

a. Hot air is added to it to obtain the desired cabin temperature.
b. Cold air is added to it to obtain the desired cabin temperature.
c. Water is added to it to cool the air down.

27. In a double heat exchanger system, which heat exchanger receives cooling first?

a. They both receive cooling at the same time.
b. The secondary main heat exchanger.
c. The primary heat exchanger.

28. What are the 3 basic principles of an air cycle cooling system?

a. Surface heat exchange - expansion - energy conversion
b. Compression - expansion - condensation
c. Surface heat exchange - combustion - energy conversion

29. Why are mufflers installed in the air-conditioning distribution system?

a. To reduce the flow of air to the suppliers.
b. As low frequency noise supressors.
c. For heat regulation in the distribution system.

30. How is the pack temperature controlled?

a. By the ram air doors and the trim air valve.
b. By the turbine bypass valve and the trim air valve.
c. By the turbine bypass valve and ram air doors.

31. The constant-differential pressure operation mode cabin is when the cabin altitude....

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

32. During the take-off mode the outflow valves are in the pre-pressurisation position. How do the outflow valves move?

a. Move towards closed.
b. Move to open position.
c. In the modulating mode.

33. Ditching control is used for .....

a. closing all valves and inlets.
b. rapidly aircraft depressurisation.
c. deploying life rafts.

34. What protects the aircraft from over-pressurization?

a. The outflow valve.
b. Cabin pressure controller.
c. The positive pressure relief valve.

35. How is the emergency pressure control valve operated if the automatic control system fails?

a. Hydraulically
b. Manually
c. Electrically

36. Which of the following instruments needs pitot pressure to operate?

a. Altimeter
b. Airspeed indicator.
c. Horizontal situation indicator.

37. Which of the following instruments is NOT a gyroscopic instrument?

a. Altitude director indicator
b. Turn co-ordinator
c. Slip indicator

38. What is "compass swing"?

a. A maintenance task to reduce the deviation error of a magnetic compass.
b. A mount for a magnetic compass to minimize the "swing" of the compass card.
c. A maintenance task to align a magnetic compass true north.

39. When does the stick shaker activate?

a. After stall occurs.
b. Prior to the stall occuring.
c. When a stall occurs.

40. The partial compass format of an EHSI shows:

a. A full compass rose.
b. A 90 degree arc of a compass rose.
c. A 180 degree arc of a compass rose.

41. On a multispool turbofan engine, which speed is always displayed?

a. Fan speed.
b. Gearbox speed.
c. High pressure rotor speed.

42. To provide the correct amount of rudder deflection to cancel the Dutch Roll is also called;

a. pitch trim
b. yaw damping
c. glide slope

43. In a Fail Passive System;

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

44. The Passenger Entertainment System PES:

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

45. The Cockpit Voice Recorder....

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

46. The three critical measurements for the air data computer are:

a. Airspeed, Altitude and temperature.
b. Airspeed, radio altitude and temperature.
c. Altitude, groundspeed and coordinates.

47. The DME Distance Measurement gives information about:

a. the slant range to the selected ground station.
b. the attitude of the aircraft.
c. the ground distance from the aircraft to the selected ground station.

48. What happens at the end of the charge of a NiCad battery?

a. CO2 is generated,
b. The battery heats up.
c. The cell voltage drops.

49. Which type of battery can experience cell reversal and how can it be prevented?

a. NiCad battery. Prevented by always fully discharging the battery.
b. Lead-acid battery. Prevented by fast charging battery.
c. NiCad battery. Prevented by never fully discharging the battery.

50. The output of a single coil generator is

a. a sine-wave.
b. a flat line.
c. a saw foot.

51. How do you call the component that completes the magnetic circuit between the poles in a DC generator?

a. The yoke.
b. The armature.
c. The brushes.

52. The output sine waves of a 3-phase alternator will be separated by:

a. 60 degrees
b. 90 degrees
c. 120 degrees

53. If the over-speed protection circuit in a CSD (Constant Speed Drive) has activated, reset is....

a. possible from the flight deck.
b. only possible in the workshop.
c. possible during Line Maintenance.

54. The ram air turbine will supply....

a. single phase AC power.
b. three phase DC power.
c. DC power.

55. When will the hydraulic motor generator (HMG) supply power?

a. Automatically when the main battery is discharged.
b. Automatically when both main AC buses lose power.
c. Manually, when the pilot switches it on after both main AC buses lose power.

56. Which of the following is NOT part of a three-unit voltage regulator?

a. Open phase protection.
b. Reverse current relay.
c. Current limiter.

57. Emergency lighting is part of which service?

a. Ground.
b. Essential.
c. Vital.

58. What provides overheat warning in a transformer rectifier unit?

a. Thermocouple.
b. Thermal switch.
c. Voltage sensor.

59. Transformer rectifiers are used for:

a. Converting DC into AC.
b. Boosting the output voltage from 28V to 110V.
c. Converting AC into DC.

60. Where in the circuit would a fuse be installed?

a. Where access to replace the fuse is easiest.
b. As close to the power source as possible.
c. As close to the unit to be protected as much as possible.

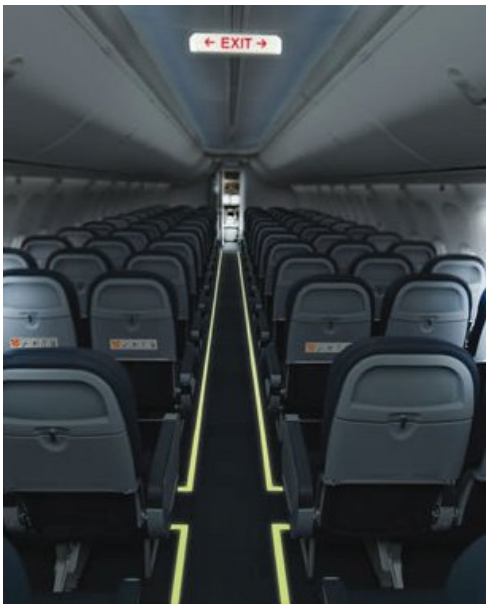
61. What is 'no breaks power transfer'?

a. Power supply is transferred from one source to another without interrupting the supply.
b. Power supply remains with the same source even though power transfer to another source has been selected.
c. Power supply is transferred from one source to another while bypassing the circuit breakers.

62. What caution action should we take when a seat cover is very dirty?

a. Remove and replace the seat cover. Discard the old cover. Use always plastic gloves and a mouth mask for bacterial protection.
b. Remove and replace the seat cover for dry cleaning.
c. 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.

63. Describe the picture and its use.



a. This is a fancy trim on the edge of the carpet. It looks nice on darker colours.
b. 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.
c. This is called the floor path lights. They will be illuminated by the crew during night flight to comfort of the passengers.

64. What is the "loose equipment layout"?

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

65. How many belts are attached to the buckle on an attendant's seat?

a. 2
b. 4,5 or 6
c. 3

66. In case of electrical power loss, can the pilot still adjust his seat?

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

67. How are galleys installed in the cabin?

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

68. What is the advantage of an integrated air stair?

a. You are independent of ground equipment.
b. 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.
c. You are independent of ground equipment, but the door can no longer be used as an emergency exit.

69. What is the sniffer used for?

a. To detect fire in the avionics compartment.
b. To detect smoke in avionics compartment.
c. To detect smoke on the flight deck.

70. What type of smoke detector contains radioactive material?

a. Photo-electric smoke detectors.
b. Carbon monoxide detectors.
c. Ionizing smoke detectors.

71. In a pneumatic fire sensor, what triggers the fire warning?

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

72. Why is there a strainer installed in the fire bottle discharge valve?

a. To catch the yellow disk as an indication that the fire bottle is used.
b. To catch any fragment from the bottle.
c. To catch any fragment from the frangible disk.

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

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

74. On a "Pull-and-turn" fire switch, when is the fire bottle discharged?

a. By pulling the handle up and turning the handle to left or right.
b. By pulling the handle up, turning it to one side and pressing the discharge button.
c. By pulling the handle up.

75. How are fire bottles without a gauge checked?

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

76. What kind of data do we find on the labels of a portable fire extinguisher?

a. 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.

b. The manufacturer and approval date and instructions to use.
c. 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.

77. The elevators control the movement of the aircraft on the .....

a. vertical axis.
b. lateral axis.
c. longitudinal axis.

78. In what direction moves the trim tab in relation to the flight control?

a. In the same direction as the flight control.
b. Repositioned in the mid.
c. In the opposite direction of the flight control.

79. What is gust suppression?

a. A locking mechanism on the ground spoilers.
b. It moves the elevator in the opposite direction of movement.
c. It makes the quality of the passenger ride better in the aft portion of the fuselage.

80. If a flap asymmetry is detected during flap extension, what will happen?

a. The crew are warned of the asymmetry condition and must stop the flap operation.
b. The asymmetry protection systems retracts the flaps immediately.
c. The asymmetry protection system stops the flap movement on both wings.

81. To reduce turbulence, what do the spoilers do in speed brake motion?

a. The inboard spoiler panels remain flush with the wing.
b. All the spoiler panels raise less high than when operated in ground spoilers mode.
c. The inboard spoiler panels raise less high than the outboards.

82. What kind of information needs the stall warning computer to calculate a stall?

a. Angle of attack, air speed, flap/slats position, gear position, stabilizer position.
b. Flap/slats position, gear position, stabilizer position, thrust settings.
c. Air speed, engine thrust setting.

83. Which flight control is used to compensate for dutch roll.

a. Rudder.
b. Ailerons.
c. Elevators.

84. What type of aerodynamic balancing is used in the rudder?

a. Horn Balance
b. Inset Hinges
c. Trim Tab

85. Which of the following DO NOT actively prevent the aircraft from stalling?

a. Stick pusher.
b. Auto slats.
c. Stick shaker.

86. Why does water in the fuel pose a danger?

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

87. When it is not possible to seal the fuel tank, then there will be ....

a. an integral tank installed.
b. a rigid tank installed.
c. a bladder tank installed.

88. What are air release valves used for?

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

89. What is probable cause for a fuel tank overpressure protection to be activated?

a. The aircraft has been defueled by suction defueling.
b. The NACA vent scoop is blocked.
c. The fuel tanks have been overfilled.

90. Engines receive fuel from, which fuel tank?

a. Always the centre wing fuel tank
b. It's own main tank
c. Collector

91. How is the fuel quantity measured in the manual way?

a. From the top of the wing visual.
b. With dipstick.
c. The electrical resistance between two points.

92. If there is an overfill condition in the refueling system and sensors are not working, the fuel will spill out ...

a. onto the ground.
b. in a special overspill fuel tank.
c. into the surge tank.

93. Where is also a fuel tank located on aircraft fitted with longitudinal balance fuel systems?

a. Centre wing box.
b. Stabilizer.
c. Wing tips.

94. Which fluid goes through the hydraulic heat exchangers inside the main fuel tanks?

a. Pump supply fluid.
b. Pump case drain fluid.
c. Pump return fluid.

95. What can prevent foaming of the hydraulic fluid in a reservoir at an altitude higher than 20.000 feet?

a. A reservoir with a piston to separate the air from the oil.
b. A integral reservoir.
c. Pressurize the reservoir.

96. When does automatic deployment of the hydraulic ram air turbine occur?

a. Both engines OFF - Aircraft in the air.
b. Hydraulic system pressure at ZERO - Airspeed more than 200 knots.
c. Both engines OFF - Aircraft in the air - Airspeed more than 80 knots.

97. What prevents nuisance blockage warnings of a filter at cold temperatures?

a. A thermal lockout on the blockage indicator.
b. A manual reset switch on the flight deck.
c. A thermal bypass valve on the filter.

98. What is the safety device called that cuts off the hydraulic flow after a certain amount of fluid has passed through it?

a. A throttling valve.
b. A check valve.
c. Hydraulic fuse.

99. If a filter is installed after the hydraulic reservoir in the pump supply line, this is a .....

a. low pressure filter.
b. suction filter.
c. high pressure filter.

100. Which type of ice poses the biggest threat to the safety of an aircraft?

a. Gleam Ice
b. Clear Ice
c. Dry Ice

101. What type of valve is the engine anti-ice valve?

a. Pressure regulating and shut off valve.
b. Pressure regulation valve.
c. Shut-off valve.

102. Which system is used only for de-icing an air-intake of a turbo propeller aircraft?

a. Pneumatic or mechanical.
b. Hot bleed air.
c. Electrical.

103. Rain repellant is stored in:

a. A rechargeable pressurised tank.
b. An unpressurised canister.
c. A disposable canister.

104. Air data probes are ....

a. de-iced with pneumatic air.
b. electrical heated.
c. anti-iced with bleed air.

105. What is the purpose of the parallel motion device on a wiper system?

a. Ensures the blade remains parallel with the screen.
b. Ensures the blade moves in normal arc.
c. Ensures the blade maintains contact with the screen.

106. What is the function of the oil in a gas/oil shock absorber?

a. Controls the recoil.
b. Lubricates the piston.
c. Absorbs heat.

107. How is a landing gear mechanical locked down?

a. by lock pins.
b. By over-centring links.
c. By a down-lock actuator.

108. Which indications are shown when the landing gear is up and locked?

a. Three green lights.
b. Three red lights.
c. Nothing.

109. What is the most common type of wheel bearing used?

a. Needle bearings.
b. Conical roller bearings.
c. Bail bearings.

110. Where would you find a chined tyre?

a. On large military jets main wheels.
b. On the tail gear tyre.
c. On the nose gear tyre.

111. What is the purpose of body gear steering?

a. To reduce the wear on the tyres in sharp turns.
b. To be able to turn more sharply.
c. To be able to steer the aircraft if the nose gear steering fails.

112. A proximity sensor which is in 'target far' condition is said to be the equivalent of:

a. An open switch.
b. A closed switch.
c. A failed switch.

113. Where will you find taxi lights?

a. In the wing leading edges.
b. On the nose landing gear.
c. In the wing root.

114. Which lights are located in the passenger service units?

a. Spotlights.
b. Cabin emergency lights.
c. Flood lights.

115. To ensure correct operation of the emergency lighting system, what must be done at specific maintenance intervals?

a. Replace the battery pack.
b. Recharge the battery packs.
c. Replace all emergency light bulbs.

116. What are the reasons for automatic deployment of emergency oxygen?

1. Cabin depressurization.
2. Smoke in the cabin.
3. Insufficient cabin air in-flow.

a. 1 + 3
b. 1 + 2
c. 1 + 2 + 3

117. How does an "on board oxygen generation system" (OBOGS) produce oxygen?

a. By using sodium chloride.
b. By electrolysis of water.
c. By using molecular filters.

118. When the N/100% selector is placed in the 'N' position on a diluter demand regulator, what is the oxygen flow supplied?

a. 100% oxygen while he user is inhaling.
b. A mixture of oxygen and cabin air while the user is inhaling.
c. A mixture of oxygen and cabin air at a constant flow.

119. Where can you find a direct reading pressure gauge on an oxygen system?

a. On the oxygen bottle.
b. On the oxygen system control panel.
c. On the flight deck.

120. What type of pneumatic system would have a water separator installed?

a. Engine bleed air system.
b. High pressure system.
c. Low pressure system.

121. The bleed air from the APU can be used:

a. At all altitudes.
b. Up to 18.000ft
c. Up to 18.000m

122. On a twin spool auxiliary power unit, what is controlled by the VGV's?

a. The speed of the turbine and also of the compressor.
b. A load compressor.
c. A pressure regulating valve.

123. In which way does the pneumatic system interface with the fire protection system?

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

124. Greywater from the sinks and galleys will be....

a. collected in a waste tank.
b. dumped overboard.
c. recycled and used to flush the toilets.

125. What happens if the safety plug (doughnut) is not fitted to the drain pipe?

a. The drain cap cannot be closed.
b. The waste tank will leak.
c. A warning light will illuminate on the flight deck.

126. Which type of messages are relevant to the aircraft minimum equipment list (MEL)?

a. Maintenance Memo
b. Fault codes.
c. Status messages

127. Aircraft fault history can be read and copied from?

a. The Communication System Recorder.
b. The Central Maintenance Computer.
c. The Navigation System Database.

128. How is the information in the electronic library organized?

a. Chronological
b. Function-oriented.
c. Task Oriented

129. On modern aircraft, which mandatory component is used to monitor aircraft structure?

a. Quick access recorder.
b. Central maintenance system.
c. Flight data recorder.

130. One of the main advantages of Integrated Modular Avionics (IMA) is?

a. More computers on board, which result in more system automation.
b. Less computers with more applications on board, which result in weight savings.
c. More computers on board, which result in faster data communication.

131. In an aircraft which has Integrated Modular Avionics....

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

132. Software which is used in IMA comply with:

a. Arinc 653 specifications
b. Arinc 100 specifications
c. Arinc 429 specifications

133. The purpose of an AFDX switch is:

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

134. The cabin interphone system is used for communication between....

a. cabin crew and passengers.
b. cabin crew and flight crew.
c. passengers and flight crew.

135. The ability to send and receive emails by passengers is a typical example of:

a. A public address unit
b. A cabin network System/Server
c. Common Core System

136. A change of the number of cabin seats means that....

a. more data concentrators must be installed.
b. the CSSC software must be updated.
c. less master call light modules are needed.

137. The Cockpit Door Surveillance System is?

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

138. The satellite communication (SATCOM) system is connected to?

a. The isolated data network.
b. The In Flight Entertainment system, only.
c. The open data network.

139. Where is the Electronic Flight Bag used for?

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

140. Can the flight crew of an Airbus A380 or Boeing 787 access real-time meteorological information?

a. Yes, but only when an HF connection is available.
b. Yes, when a datalink is available.
c. No