1. If radio communication is established during an interception but communication in a common language is not possible, which phrase should be pronounced by the intercepting aircraft to request the intercepted aircraft to descend for landing?

   a. You land
   b. Let down
   c. Descend
   d. Descend for landing

2. If radio contact with the intercepting aircraft is established but communication on a common language is not possible, which phrase should be pronounced by the intercepted aircraft to communicate that he is unable to comply with the instructions received?

   a. CAN NOT
   b. NOT POSSIBLE
   c. CAN NOT COMPLY
   d. UNABLE TO COMPLY

3. A flashing red light from control tower during approach to land means:

   a. Give way to other aircraft in emergency
   b. The airport is temporarily, continue circling
   c. The airport is unsafe, do not land
   d. Continue circling and wait for further instructions

4. On aerodrome aircraft taxying on manoeuvring area of an aerodrome shall give way to:

   a. other vehicles and pedestrians
   b. all vehicles moving on the apron except the “follow me” vehicle
   c. other converging aircraft
   d. aircraft taking off or about to take off

5. The person who has final authority as to the disposition of an aircraft during flight time is:

   a. The airliner/operator
   b. The ATC controller if the aircraft is flying
   c. The aircraft owner
   d. The commander

6. Which of following flights has the greatest priority to land?

   a. VIP (Head of State) aircraft
   b. Hospital aircraft carrying a very sick person needing immediate medical attention
   c. Emergency aircraft
   d. Military aircraft

7. An aircraft flying above the sea between 4 500 feet MSL and 9 000 feet MSL outside controlled airspace under VFR, must retain on principle at least:

   a. 1 500 m horizontally, 1000 feet vertically from clouds; 8 km visibility.
   b. clear of clouds and in sign of the surface; 8 km visibility.
   c. 1 500 m horizontally, 1000 feet vertically from clouds; 5 km visibility

d. 2 000 m horizontally, 1000 feet vertically from clouds; 5 km visibility

8. The VMC minima for an airspace classified as “B” above 10 000 feet MSL are:

a. 1 nautical mile horizontaly and 1 000 feet verticaly from cloud; 8 km visibility
b. clear of clouds; 8 km visibility
c. 2 000 metres horizontaly, 1 000 feet verticaly from clouds; 8 km visibility
d. 1 mile horizontaly and 1 000 feet verticaly from clouds; 5 km visibility

9. The VMC minima for an airspace classified as “G” above 10 000 feet MSL are:

a. 1 500 m horizontally, 1000 feet vertically from clouds; 5 km visibility
b. 1 mile horizontaly and 1 000 feet verticaly from clouds; 8 km visibility
c. 1 500 m horizontally, 1000 feet vertically from clouds; 8 km visibility
d. 1 mile horizontaly and 1 000 feet verticaly from clouds; 5 km visibility

10. A controlled flight is requested to inform the appropriate ATC unit whenever the average True Air Speed at cruising level varies or is expected to vary from that given in the flight plan by plus or minus:

a. 10%
b. 2%
c. 5%
d. 3%

11. An aircraft intercepted by another aircraft, if equipped with SSR transponder shall, unless otherwise instructed by the appropriate ATS unit, select one of the following code on mode “A”

a. 7 700
b. 7 600
c. 7 500
d. 7 000

12. An aircraft intercepted by another aircraft shall immediately attempt to establish radio communication with the intercepting aircraft on the following frequencies:

a. 121.5 MHz – 243 MHz
b. 121.5 MHz – 282.8 MHz
c. 121.5 MHz – 125.5 MHz
d. 243 MHz – 125.5 MHz

13. Which manoeuvre shall be executed by an intercepting aircraft if the pilot wants to communicate to the intercepted aircraft “ YOU MAY PROCEED”?

a. Rocking the wings and flashing the navigation lights.
b. Rocking wings twice and crossing in front of aircraft.
c. Circling the intercepted aircraft in a clock-wise pattern.
d. Executing a climbing turn of 90 degrees or more without crossing the line of flight the intercepted aircraft.

14. Which action shall be taken by an aircraft in the traffic pattern of an aerodrome, experiencing radio failure to indicate difficulties which compel it to land without requiring immediate assistance?

a. Switching on and off four times the navigation lights
b. Switching on and off four times the landing lights
c. The repeated switching on and off landing lights
d. Switching on and off three times the landing lights

15. Unless otherwise prescribed, what is the rule regarding level to be maintained by an aircraft flying IFR outside controlled airspace?

a. 1 000 feet above the highest obstacle within 8 nautical miles of course
b. 1 000 feet above the highest obstacle within 8 kilometres of the estimated position of the aircraft
c. 2 000 feet above the highest obstacle within 8 kilometres of course
d. 2 000 feet above the highest obstacle within 8 nautical miles of course

16. Aircraft “A” with ATC clearance is flying in VMC conditions within a control area. Aircraft “B” with no ATC clearance is approaching at approximately the same altitude and on a converging course. Which has the right of way?

a. Aircraft “B” regardless of the direction “A” is approaching
b. Aircraft “A” if “B” is on its right
c. Aircraft “A” regardless of the direction which “B” is approaching
d. Aircraft “B” if “A” is on its left

17. Which of the following actions shall be taken in case of a controlled flight deviates from the track?

a. If VMC, maintain this condition, waiting for the ATC instructions
b. Inform the ATC unit immediately
c. Adjust the heading of aircraft to regain track as soon as practicable
d. Notify ATC of the new track immediately and comply with instructions

18. A signalman will ask the pilot to apply parking brakes by the following signals:

a. Arm down, palms facing inwards, moving arms from extended position inwards.
b. Raise arm and hand, with fingers extended, horizontally in front of body, then clench fist
c. Crossing arms extended above his head
d. Horizontally moving his hands, fingers extended, palm toward round

19. An aircraft is flying under IFR in an area where the visibility is unlimited and the sky is clear (free of cloud) when it totally loses radio communications. the procedure to be followed is:

a. descend to En-route Minimum Safe Altitude and join closest airfield open to IFR operations.
b. continue flight onto destination, complying with last received clearances then with filed flight plan
c. adopt VFR flight level and continue flight onto destination
d. land on closest appropriate aerodrome, then advise Air Traffic Services of landing

20. While on IFR flight, a pilot has an emergency which causes a deviation from an ATC clearance. What action must be taken?

a. The appropriate ATC unit shall be notified of action taken as soon as circumstances permit
b. Squawk 7 700
c. Submit a detailed report to ATC within 24 hours
d. Request an amended clearance or cancel the IFR flight plan

21. A public transport jet aeroplane may be operated up to FL 450. The cabin includes 180 passengers seats, made up of 30 rows (3 seats from each side of central aisle). The minimum of oxygen masks for this aeroplane must be:

a. 270 (150% of the seating capacity)
b. 240 (one additional mask per seat block)
c. 210 (one additional mask per seat row)
d. 198 (110% of seating capacity)

22. In a pressurized transport aircraft, the protective breathing equipment:

a. protects the members of the crew against fumes and noxious gases
b. protects the members of the crew against the effect of accidental depressurization
c. protects all the occupants against the effect of accidental depressurization
d. gives medical assistance to certain passengers with respiratory disorders.

23. When quick donning masks are in use, the pilot is:

a. able to radiotelephone
b. not able to do any radiotelephone
c. only able to receive
d. only able to transmit

24. Some emergency exits must be equipped with devices so as to help the occupants to get out and reach the ground if their threshold is at a height above the ground greater than:

a. 8 ft , aeroplane on the ground, landing gear extended
b. 6 ft, aeroplane on the ground, one main gear or nose gear collapse.
c. 6 ft , aeroplane on the ground, landing gear extended
d. 8 ft, aeroplane on the ground, one main gear or nose gear collapse.

25. The fault protection circuit in fire detection system will:

a. active the fire detection system when the detection line is connected to ground
b. automatically initiate APU shutdown and fire extinguisher striker activation in the event of fire
c. activate an alarm in the cockpit and in the landing gear bay for ground crew.
d. inhibit the fire detector when the detection line connected to ground

26. In a fire detection system with single loop continuous components (with no fault protection), if the line is accidentaly grounded:

a. there will be no effect on the system
b. the engine fire extinguisher striker is automatically activated.
c. the fire alarm is triggered
d. the power supply is cut off automatically

27. When a wire type fire system is tested:

a. the wiring and warning are tested
b. the wire is totally heated
c. a part of wire is totally heated
d. only the waning function is tested

28. In a pressurized aircraft, the first-aid (therapeutic) oxygen is designed to:

a. protect certain passengers, and is only carried on board for these people.
b. protect all the occupants against the effects of accidental depressurisation
c. give medical assistance to passengers with pathological respiratory disorders
d. protect the flight crew and cabin attendants against fumes and noxious gases

29. An aircraft is scheduled to fly from A to B at FL 390 and has following characteristics: Maximum number of passenger specified by the certificate of airworthiness = 230, Number of seats on board = 200, Scheduled number of passengers on board = 180. The minimum number of inhalers systems provided in the aircraft cabin should be:

a. 230
b. 200
c. 220
d. 180

30. From which flight level do the regulations require a quick donning type oxygen mask for the flight crew in a pressurized aircraft?

a. FL 250
b. FL 390
c. Fl 300
d. FL 100

31. What is breathed in when using a passenger oxygen mask?

a. A mixture of oxygen and freon gas
b. Cabin air and oxygen or 100% oxygen
c. 100% oxygen
d. Cabin air and oxygen

32. An operator shall not operate an aeroplane certificated to JAR/FAR 25, across an area in which search and rescue would be especially difficult, without survival equipment if it flies away from an area suitable for making an emergency landing at a distance greater than:

a. 30 minutes at cruising speed
b. 60 minutes at cruising speed
c. 90 minutes at cruising speed
d. 120 minutes at cruising speed

33. A turboprop aeroplane is performing an over water flight, which takes it furthur than 340 NM away from an aerodrome where an emergency landing could be performed. Normal cruising speed is 180 kt. One engine out airspeed is 155 kt.

a. Life rafts must be available for all occupants.

b. Life jackets must be available for all occupants
c. Life jackets and rafts must be available for all occupants
d. The regulations does not require life jackets or rafts to be taken on board in this particular case.

34. The safety precautions to be taken whenever using oxygen are: 1. restrain from smoking, avoid sparkes.; 2. Avoid operation of radio communication equipment.; 3. Slowly operate oxygen system valves.; 4. Avoid greasy matter.; The combination regrouping all the correct statements is:

a. 1,2,3.
b. 1,2,4.
c. 1,3,4.
d. 2,3,4

35. The correct formula to calculate the muti-cylinder engine displacement is:

a. (piston area) x (piston stroke)
b. (cylinder volume) x (number of cylinders)
c. (cylinder length) x (cylinder diameter)
d. (piston area) x (pistons stroke) x (number of cylinders)

36. The oxygen masks have dropped down from the passengers service units. The oxygen flow starts:

a. immediately
b. after pulling the oxygen mask downwards
c. after the system has been switch on by crew member
d. only above FL 200

37. If inflammable gaseous materials, like propane for example, are set on fire; the following extinguisher types should be used for fire fighting:

a. BCF and CO2 type extinguishers
b. Water type extinguishers
c. CO2 and water type extinguishers
d. Dry and water type extinguishers

38. Max. Exhaust Gas Temperature is theoretically associated with:

a. Mass ratio of 1/15.
b. Cruising mixture setting.
c. Mix ratio very close to idle cut-out.
d. Full rich setting.

39. For a given type of oil, the oil viscosity depends on the:

a. oil pressure.
b. quantity of oil
c. outside pressure
d. oil temperature

40. Static dischargers: 1. are used to set all the parts of the airframe to the same electrical potential; 2. are placed on wing and tail tips to facilitate electrical discharge; 3. are used

to reset the electrostatic potential of aircraft to a value approximating 0 volts; 4. are located on wing and tail tips to reduce interference with on-boar radio communication system to minimum; 5. limit the risks of transfer of electrical charges between the aircraft electrified clouds; The combination regrouping all the correct statements is:

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

41. Cabin pressure is controlled by:

a. controlling the flow of air into the cabin with a constant outflow.
b. the cabin air re-circulation system.
c. delivering a substantially constant flow of air into the cabin and controlling the outflow.
d. the cabin air mass flow control inlet valve(s).

42. During level flight at a constant cabin pressure altitude (which could be decreased, even at this flight level), the cabin outflow valves are:

a. Fully closed until the cabin climbs to a selected altitude.
b. Fully closed until the cabin descends to a selected altitude.
c. At the pre-set position for take-off.
d. Partially open.

43. The purpose of a ditching control is to:

a. open the outflow valve(s)
b. close the outflow valve(s)
c. achieve rapid depressurisation.
d. direct pressurisation air to the flotation bags.

44. The cabin pressure is regulated by the:

a. Air cycle machine.
b. Outflow valve.
c. Cabin inlet airflow valve.
d. Air conditioning pack.

45. The pressurization of the cabin is controlled by:

a. The cabin outflow valve.
b. The engine's bleed valves.
c. The engines' RPM.
d. The cabin inlet airflow.

46. The cabin differential pressure means the pressure difference between:

a. cockpit and passenger cabin.
b. cabin pressure and ambient air pressure.
c. cabin pressure and ambient air pressure at MSL
d. actual cabin pressure and selected pressure.

47. Under normal conditions (JAR25) the cabin pressure altitude is not allowed to exceed:

a. 6000 ft
b. 10000 ft
c. 8000 ft
d. 4000 ft

48. Cabin altitude means the:

a. difference in height between the cabin floor and celling.
b. flight level the aircraft is flying at.
c. flight level altitude at maximum differential pressure.
d. cabin pressure expressed as altitude.

49. On a modern large pressurized transport aircraft, the maximum cabin differential pressure is approximately:

a. 3 – 5 psi
b. 22 psi
c. 7 –9 psi
d. 13 –15 psi

50. On the most modern airliners the cabin pressure is controlled by regulating the:

a. RPM of the engine.
b. Airflow entering the cabin.
c. Airflow leaving the cabin.
d. Bleed air valve.

51. If the maximum operating altitude of an airliner is limited by the pressurized cabin, this limitation is due to the maximum:

a. Negative cabin differential pressure at maximum operating celling.
b. Positive cabin differential pressure at maximum cabin altitude.
c. Negative cabin differential pressure at maximum cabin altitude.
d. Positive cabin differential pressure at maximum operating celling.

52. The “cabin differential pressure” is:

a. approximately 5 psi at maximum.
b. approximately 15 psi at maximum.
c. the pressure differential between the air entering and leaving the cabin.
d. cabin pressure minus ambient pressure.

53. The cabin rate of descent is:

a. a cabin pressure increase
b. is not possible at constant airplane altitudes
c. a cabin pressure decrease.
d. always the same as the airplane’s rate of decent

54. The maximum differential pressure of a transport category airplane is approximately:

a. 9.0 psi

b. 15.5 psi
c. 13.5 psi
d. 3.5 psi

55. The pneumatic ice protection system is mainly used for:

a. engine intakes.
b. pitot tubes.
c. propellers.
d. wings.

56. What is the purpose of the pack cooling fans in the air conditioning system?

a. Supplying the heat exchangers with cooling air during slow flights and ground operation
b. Cooling of the APU compartment.
c. Supplying the heat exchangers with cooling air during cruise flight.
d. Supplying the Passenger Service Unit (PSU) with fresh air.

57. The cabin air for modern airplanes is usually supplied by:

a. single radial compressors.
b. roots type compressors.
c. piston compressors.
d. main engine compressors.

58. Cabin air for modern aircraft is usually taken from:

a. the low pressure compressor and from the high pressure compressor if necessary
b. the high pressure compressor.
c. the low pressure compressor.
d. the second fan stage.

59. In an aircraft air conditioning system the air cannot be treated for:

a. pressure.
b. humidity.
c. purity.
d. temperature

60. On modern transport aircraft, cockpit windows are protected against icing by:

a. Vinyl coating.
b. Anti-icing fluid.
c. rain repellent system.
d. Electric heating

61. The advantages provided by an air data computer to indicate the altitude are: 1. Position/pressure error correction; 2. Hysteresis error correction; 3. Remote date transmission capability; 4. Capability of operating as a conventional altimeter in the event of failure; The combination of correct statements is:

a. 1,2,3.
b. 1,3,4.

c. 2,3,4.
d. 1,2,3,4.

62. The vertical speed indicator of an aircraft flying at a true airspeed of 100 kt, in a descent with a slope of 3 degrees, indicates:

a. – 500 ft/min
b. – 250 ft/min
c. – 150 ft/min
d. – 300 ft/min

63. VNO is the maximum speed:

a. at which the flight control can be fully deflected.
b. with flaps extended in landing position
c. which must never be exceeded.
d. not to be exceeded except in still air and with caution.

64. VNE is the maximum speed:

a. not to be exceeded except in still air and with caution
b. at which the flight control can be fully deflected.
c. with flaps extended in landing position
d. which must never be exceeded.

65. VLO is the maximum:

a. speed with flaps extended in a given position.
b. flight speed with landing gear down
c. cruising speed not to be exceeded except in still air with caution.
d. speed at which the landing gear can be operated with full safety.

66. VLE is the maximum:

a. flight speed with landing gear down
b. speed authorized in flight
c. speed at which the landing gear can be operated with full safety
d. speed with flaps extended in a given position.

67. The hysteresis error of an altimeter varies substantially with the:

a. aircraft altitude
b. static temperature
c. mach number of aircraft
d. time passed at a given altitude

68. When an aircraft has turn 270 degrees with a constant altitude and bank, the pilot observes the following on a classic artificial horizon:

a. too much nose-up and bank too high.
b. too much nose-up and bank correct.
c. too much nose-up and bank too low.
d. altitude and bank correct.

69. When an aircraft has turned 360 degree with a constant altitude and bank, the pilot observes the following on a classic artificial horizon:

a. too much nose-up and bank correct.
b. too much nose-up and bank too low.
c. too much nose-up and bank too high.
d. altitude and bank correct.

70. When an aircraft has turned 90 degree with a constant altitude and bank, the pilot observes the following on a classic artificial horizon:
a. altitude and bank correct.
b. too much nose-up and bank too low.
c. too much nose-up and bank too high.
d. too much nose-up and bank correct.

71. A gravity type erector is used in a vertical gyro device to correct errors on:

a. a directional gyro unit
b. an artificial horizon
c. a gyromagnetic indicator
d. a turn indicator

72. The directional gyro axis no longer spins about the local vertical when it is located:

a. on the equator
b. on the North pole
c. in the latitude 45 degree
d. in the latitude 30 degree

73. The directional gyro axis spins about the local vertical by 15 degree/hour:

a. on the equator
b. in the latitude 30 degree
c. in the latitude 45 degree
d. on the North pole

74. The pendulum type detector system of the directional gyro feeds:

a. a levelling erection torque motor
b. a torque motor on sensitive axis
c. 2 torque motors arranged horizontally
d. a nozzle integral with the outer gimbal ring

75. The gimbal error of the directional gyro is due to the effect of:

a. an apparent weight and apparent vertical
b. the aircraft's track over the earth
c. too slow precession on the horizontal
d. a bank or pitch altitude of aircraft

76. Under normal operating conditions, when an aircraft is in banked turn, the rate-of-turn indicator is valuable gyroscopic flight control instrument, when it is associated with an altitude indicator it indicates: 1. The angle velocity of the aircraft about the yaw axis; 2.

The bank of the aircraft; 3. The direction of the aircraft turn; 4. The angular velocity of the aircraft about the real vertical; The combination of correct statements is:

a. 3,4.
b. 2,4.
c. 1,2.
d. 1,3.

77. A rate integrating gyro is a detecting element used in: 1. An inertial altitude unit; 2. An automatic; 3. A stabilizing servo system; 4. An inertial navigation system; 5. A rate-of-turn indicator. The combination of correct statement is:

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

78. The aircraft radio equipment which emits on a frequency of 4400 MHz is the:

a. weather radar
b. high altitude radio altimeter
c. primary radar
d. radio altimeter

79. The correction of the control surface deflection made by the auto-pilot calculator in order to keep a given altitude will be all the more significant when the: 1- difference between the altitude necessary to keep the given or reference altitude and the instantaneous altitude is high; 2- variation speed of the difference between the altitude necessary to maintain the altitude and the instantaneous altitude is high; 3- difference between the altitude of reference and the instantaneous altitude is high; 4- variation speed of the difference between the reference altitude and the instantaneous altitude is high. The combination regrouping the correct statements is:

a. 1,2
b. 3,4
c. 1,2,3
d. 1,2,3,4

80. Compared with a conventional gyro, a laser gyro:

a. is influenced by temperature
b. has a longer life cycle
c. has a fairly long starting cycle
d. consumes a lot of power

81. In low altitude radio altimeters, the reading is zero when main landing gear wheels are the ground. For this, it is necessary to:

a. account for signal processing time in the unit and apply a correction factor to the reading.
b. place the antennas on the bottom of the aeroplane.
c. compensate residual altitude due to antennas height above the ground and coaxial cables length.
d. change the display scale in short final, in order to have a precise readout.

82. In low altitude radio altimeters used in precision approaches: 1- operate in 1540-1660 MHz range; 2 – are of the pulsed type; 3 – are of the frequency modulation type; 4 – have an operating range of 0 to 500 ft; 5 – have a precision of +/- 2 ft above and 500 ft. The combination of correct statements is:

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

83. The data supplied by a radio altimeter:
a. concerns only the decision height.
b. is used only by the radio altimeter indicator.
c. indicated the distance between the ground and the aircraft.
d. is used by the automatic pilot in the altitude hold mode.

84. Regarding Electronic Instrument System (EFIS): 1- the Navigation Display (ND) displays Flight Director Bars; 2 – the altimeter setting is displayed on the PFD (Primary Flight Display); 3- the PFD is the main flying instrument; 4 – the FMA (Flight Mode Annunciator) is part of ND. The combination regrouping all the correct statements is:

a. 3,4
b. 2,3
c. 1,4
d. 1,2

85. Flight Director Information supplied by an FD computer is presented on the form of command bars on the following instrument:

a. ADI Altitude Display Indicator.
b. BDHI Bearing Distance Heading Indicator.
c. HSI Horizontal Situation Indicator.
d. RMI Radio Magnetic Indicator.

86. The Head Up Display (HUD) is device allowing the pilot, while still looking outside, to have:

a. a monitoring only during Cat III precision approaches.
b. a synthetic view of the instrument procedure.
c. a flying and flight path control aid.
d. a monitoring of engine data.

87. Flight recorder duration must be such that flight data, cockpit voice and sound warnings may respectively be recorded during at least:

a. 48 hours for flight data, 60 minutes for cockpit voices and warnings horns
b. 20 hours for flight data, 15 minutes for cockpit voices and warnings horns
c. 25 hours for flight data, 30 minutes for cockpit voices and warnings horns
d. 25 hours for flight data, 60 minutes for cockpit voices and warnings horns

88. If outside temperature at 35000 ft is – 40 degree C, the local speed of sound is:

a. 247 kt.

b. 596 kt.
c. 307 kt.
d. 686 kt.

89. A failed RMI rose is locked on 090 degree ADF pointer indicates 225 degree. The relative bearing to the station is:

a. 225 degree
b. 135 degree
c. 315 degree
d. Impossible to read, due to failure RMI

90. The pressure measured at the forward facing office of a pitot tube is the:

a. dynamic pressure.
b. static pressure.
c. total pressure plus static pressure.
d. total pressure.

91. The error in altimeter readings caused by the variation of the static pressure near the source is known as:

a. barometric error.
b. instrument error.
c. hysteresis effect.
d. position pressure error.

92. If the static source of an altimeter becomes blocked during a descent the instrument will:

a. gradually indicate zero
b. under-read
c. indicate a height equivalent to the setting on the millibar subscale
d. continue to display the reading at which the blockage occured

93. The primary factor which makes the servo-assisted altimeter more accurate than the simple pressure altimeter is the use of:

a. a sub-scale logarithmic function
b. an induction pick-off device
c. more effective temperature compensating leaf springs
d. combination of counters/pointers

94. If the static source to an altimeter becomes blocked during a climb, the instrument will:

a. continue to indicate the reading at which the blockage occured
b. over-read
c. under-read by an mount equivalent to the reading at the time that the instrument became blocked
d. gradually return to zero

95. If the static source to an airspeed indicator (ASI) becomes blocked during a descent the instrument will:

a. continue to indicate the speed applicable to that a the time of the blockage
b. under-read
c. read zero
d. over-read

96. When climbing at a constant Mach number below the tropopause, in ISA conditions, the Calibrated Airspeed (CAS) will:

a. increase at a exponential rate
b. increase at a linear rate
c. decrease
d. remain constant

97. For a constant Calibrated Airspeed (CAS) and a level flight, a fall ambient temperature will result in a:
a. higher True Airspeed (TAS) due to an increase in air density
b. higher True Airspeed (TAS) due to a decrease in air density
c. lower True Airspeed (TAS) due to an increase in air density
d. lower True Airspeed (TAS) due to a decrease in air density

98. When descending through an isothermal layer at a constant Calibrated Airspeed (CAS), the True Airspeed (TAS) will:

a. decrease
b. increase at an exponential rate
c. increase at a linear rate
d. remain constant

99. A leak in the pitot total pressure line of a non-pressurized aircraft to an airspeed indicator would cause it to:

a. over-read in a climb and under-read in a descent.
b. under-read in a climb and under-read in a descent.
c. under-read.
d. over-read.

100. The airspeed indicator circuit consists of pressure sensors. The pitot tube directly supplies:

a. the dynamic pressure
b. the static pressure
c. the total pressure
d. the total pressure and the static pressure

101. Considering only structural limitations, on very short legs with minimum take-off fuel, the traffic load in normally limited by:

a. Actual landing mass
b. Minimum landing mass
c. Maximum take-off mass
d. Maximum zero fuel mass

102. Considering only structural limitations, on long distance flights (at the aeroplane's maximum range), the traffic load is normally limited by:

a. The maximum zero fuel mass plus the take-off mass.
b. The maximum landing mass
c. The maximum zero fuel mass
d. The maximum take-off mass

103. The zero fuel mass of an aeroplane is always:

a. The take-off mass minus the fuselage fuel mass
b. The maximum take-off mass minus the take-off fuel mass
c. The take-off mass minus the take-off fuel mass
d. The take-off mass minus the wing fuel mass

104. Given: Maximum structural take-off mass = 146 900 kg, Maximum structural landing mass = 93 800 kg, Maximum zero fuel mass = 86 400 kg, Trip fuel = 27 500 kg, Block fuel = 35 500 kg; Engine starting and taxi fuel = 1 000 kg. The maximum take-off mass is equal to:

a. 120 300 kg
b. 121 300 kg
c. 113 900 kg
d. 120 900 kg

105. Given: Aeroplane mass = 36 000 kg, Centre of gravity (cg) is located at station 17 m. What is the effect on cg location if you move 20 passengers 9 total mass = 1 600 kg) from station 16 to station 23?

a. It moves forward by 0.157m
b. It moves aft by 0.157m
c. It moves aft by 0.31m
d. It moves aft by 3.22m

106. In mass and balance calculations the “index” is:

a. the moment divided by constant
b. a location in the aeroplane identified by a number
c. the range of moments the centre of gravity (cg) can have without making the aeroplane unsafe to fly
d. an imaginary vertical plane or line from which all measurement are taken

107. Loads must be adequately secured in order to:

a. avoid unplanned centre of gravity (cg) movement and aircraft damage.
b. allow steep turns
c. avoid any centre of gravity (cg) movement during flight
d. prevent excessive ‘g’-loading during the landing flare.

108. Traffic load is the:

a. Take-off Mass minus Zero Fuel Mass
b. Zero Fuel Mass minus dry Operating Mass
c. Dry Operating Mass minus disposable load.
d. Dry Operating Mass minus the variable load.

109. Given the following information, calculate the loaded centre of gravity (c.g). Details at Table 9:

a. 53.35 cm aft datum
b. 56.53 cm aft datum
c. 60.16 cm aft datum
d. 56.35 cm aft datum

110. Given are the following information at take-off. Detail at the Table 10; Given that the flight time is 2 hours and the estimated fuel flow will be 1050 litres per hours and the average oil consumption will be 2.25 litres per hour. The specific density of fuel is 0.79 and the specific density of oil is 0.96.; Calculate the landing centre of gravity.

a. 61.27 aft of datum
b. 61.29 aft of datum
c. 61.28 aft of datum
d. 61.26 aft of datum

111. Given that the total mass of an aeroplane is 112 000 kg with a centre of gravity position at 22.62 aft of datum. The centre of gravity limits are between 18m and 22m. How much mass must be removed from the real hold (30m aft of the datum) to move the middle of the limits: (refer the image N0 12)

a. 8 680 kg
b. 16 529 kg
c. 43 120 kg
d. 29 344 kg

112. The total mass of an aeroplane is 145 000 kg and the centre of gravity limits are between 4.7m and 6.9m aft of the datum. The loaded centre of gravity position is 4.4m aft. How much mass must be transferred from the front to the rear hold in order to bring the out of limit centre of gravity position to the foremost limit: (refer the image No 12)

a. 3 500 kg
b. 7 500 kg
c. 62 500 kg
d. 35 000 kg

113. What determines the longitudinal stability of an aeroplane?

a. The dihedral, angle of sweepback and the keel effect
b. The effectiveness of the horizontal stabilizer, rudder and rudder trim tab
c. The relationship of thrust and lift to weight and drag
d. The location of the centre of gravity with respect to the neutral point

114. While making mass and balance calculation for a particular aeroplane, the term “Empty Mass” applies to the sum of airframe, engine(s), fixed ballast plus:

a. unusable fuel and full operating fluids
b. all the consumable fuel and oil, but not including any radio or navigation equipment installed by manufacturer
c. all the oil, fuel, and hydraulic fluid but not including crew and traffic load.
d. all the oil and fuel.

115. The term “Maximum Zero Fuel Mass” consist of:

a. The Maximum mass for some aeroplanes including the fuel load and the traffic load
b. The maximum permissible mass of an aeroplane with no useable fuel
c. The maximum mass authorized for a certain aeroplane not including traffic load and fuel load
d. The maximum mass authorized for a certain aeroplane not including fuel load and operational items

116. The actual “Zero fuel Mass” is equal to the:

a. Actual Landing Mass plus trip fuel
b. Basic Empty Mass plus the fuel loaded
c. Dry Operating Mass plus the traffic load
d. Operating Mass plus all the traffic load

117. The actual “Take-off Mass” is equivalent to:
a. Actual Zero Fuel Mass plus the traffic load
b. Dry Operating Mass plus take-off fuel and the traffic load
c. Actual Landing Mass plus the take-off fuel
d. Dry Operating Mass plus the take-off fuel

118. Calculate the centre of gravity in % MAC (mean aerodynamic chord) with following data: Distance datum – centre of gravity: 12.53m, Distance datum – leading edge: 9.63m. Length of MAC: 8m.

a. 47.0 % MAC
b. 36.3 % MAC
c. 23.1 % MAC
d. 63.4 % MAC

119. With respect to aeroplane loading in the planning phase, which of the following statement is always correct? (LM = Landing Mass; TOM = Take-off Mass; MTOW = Maximum Take-off Mass; ZFM = Zero Fuel Mass; MZFM = Maximum Zero Fuel Mass; DOM = Dry Operating Mass)

a. MZFM = Traffic load + DOM
b. LM = TOM – Trip Fuel
c. MTOM = ZFM + maximum possible fuel mass
d. Reserve Fuel = TOM – Trip Fuel

120. Given an aeroplane with: Maximum Structural Landing Mass: 125 000 kg; Maximum Zero Fuel Mass; 108 500 kg; Maximum Structural Take-off Mass: 155 000 kg; dry Operating Mass: 82 000 kg; Scheduled trip fuel is 17 000 kg and the reserve fuel is 5000 kg; Assuming performance limitations are not restricting, the maximum permitted take-off mass and maximum traffic load are respectively:

a. 130 500 kg and 26 500 kg
b. 130 500 kg and 31 500 kg
c. 125 500 kg and 26 500 kg
d. 125 500 kg and 21 500 kg

121. Given: Dry Operating Mass = 29 800 kg, Maximum Take-Off Mass = 52 400 kg, Maximum Zero Fuel Mass = 43 100 kg, Maximum Landing Mass = 46 700 kg, Trip Fuel = 4 000 kg, Fuel quantity at brakes release = 8000 kg. The maximum traffic load is:

a. 14 600 kg
b. 13 300 kg
c. 9 300 kg
d. 12 900 kg

122. The load centre of gravity (cg) of an aeroplane is 713 mm aft of datum. The mean aerodynamic, chord lies between station 524 mm aft and 1706 mm aft. The cg expressed as 1% (mean aerodynamic chord) is:

a. 60 %
b. 41 %
c. 16 %
d. 10 %

123. The take-off mass of an aeroplanes is 117 000 kg, comrising a traffic load of 18 000 kg and fuel of 46 00 kg. What is the dry operating mass?
a. 71 000 kg
b. 64 000 kg
c. 99 000 kg
d. 53 000 kg

124. A location in the aeroplane which is identified by a number designating its distance from the datum is known as:

a. Moment.
b. MAC.
c. Index.
d. Station.

125. The mass of an aeroplane is 1950 kg. If 450 kg is added to a cargo hold 1.75 metres from the load centre of gravity (cg). The loaded cg will move:

a. 34 cm
b. 30 cm
c. 40 cm
d. 33 cm

126. The Dry Opearating Mass of an aeroplane includes:

a. Passengers baggage and cargo.
b. Crew and crew baggage, catering, removable passenger service equipment, portable water and lavatory chemicals.
c. Fuel and passengers baggage and cargo.
d. Unuseable fuel and reserve fuel

127. If 390 lbs of cargo moved from compartment B (aft) to compartment A (forward), what is the station number of the new centre of gravity (cg). Given; Gross mass 116 500 lbs, Present cg station 435.0, Compartment A station 285.5, Compartment B station 792.5.

a. 463.7

b. 506.3
c. 436.7
d. 433.3

128. The centre of gravity of a body is that point.

a. which is always used as datum when computing moments.
b. where the sum of the extenal forces is equal to zero.
c. where the sum of the moments from the extenal forces acting on the body is equal to zero.
d. through which the sum of the forces of all masses of the body is considered to act.

129. The stalling speed of an aaeroplane will be highest when it is load with a:

a. high gross mass and aft centre of gravity.
b. low gross mass and aft centre of gravity.
c. high gross mass and forward centre of gravity.
d. low gross mass and forward centre of gravity.

130. With the centre of gravity on the forward limit which of the following is to be expected?

a. A decrease in the landing speed.
b. Atendency to yaw to the right on take-off.
c. A decrease in range.
d. A decrease of the stalling speed.

131. The maximum load per running metre of an aeroplane is 350 kg/m. The width of the floor area is 2 metres. The floor strength limitation is 300 kg per square metre. which one of the following crates (length x width x height) can be loaded directly on the floor?

a. A load of 400 kg in a crate with dimensions 1.4m x 0.8m x 0.8m.
b. A load of 500 kg in a crate with dimensions 1.5m x 1m x 1m.
c. A load of 400 kg in a crate with dimensions 1.2m x 1.2m x 1.2m.
d. A load of 700 kg in a crate with dimensions 1.8m x 1.4m x 0.8m.

132. Given the following: Maximum structural take-off mass: 48 000 kg; Maximum structural landing mass: 36 000 kg; Taxi-fuel: 600 kg; Contingency fuel: 900 kg; Alternate fuel: 800 kg; Final reserve fuel: 1 100 kg; Trip fuel: 9000 kg. Determine the actual take-off mass:

a. 53 000 kg
b. 48 000 kg
c. 48 400 kg
d. 47 800 kg

133. If nose wheel moves aft during gear retraction, how will this movement affect the location of the centre of gravity (cg) on the aeroplane?

a. It will cause the cg to move aft.
b. The cg location will change, but the direction canot be told the information given.
c. It will cause the cg to move forward.
d. It will not affect the cg location.

134. At the flight preparation stage, the following parameters in particular are available for determining the mass of the aircraft: 1- Dry operating mass; 2- Operating mass. Which statement is correct?

a. The dry operating mass includes take-off fuel.
b. The dry operating mass includes fix equipment needed to carry out a specific flight.
c. The operating mass includes the traffic load.
d. The operating mass is the mass of the aeroplane without take-off fuel.

135. Which of the following alternatives corresponds to zero fuel mass?

a. The mass of an aeroplane with no useable fuel.
b. Operating mass plus load of passengers and cargo.
c. Take-off mass minus fuel to destination and alternate
d. Operating mass plus passengers and cargo.

136. Given that: Maximum structural take-off mass: 146 000 kg; Maximum structural landing mass: 93 900 kg; Maximum zero fuel mass; 86 300 kg; Taxi-fuel: 1 000 kg; Contingency fuel: 1350 kg; Alternate fuel: 2650 kg; Final reserve fuel: 3 000 kg; Trip fuel: 27 000 kg. Determine the actual take-off mass:

a. 146 000 kg
b. 120 300 kg
c. 120 900 kg
d. 121 300 kg

137. On an aeroplane without central fuel tank, the maximum Zero Fuel Mass is related to:

a. Variable equipment for the flight.
b. Maximum Structural Take-off Mass.
c. Wing loaded trip fuel.
d. The bending moment at the wing root.

138. Given are: Maximum structural take-off mass: 72 000 kg; Maximum structural landing mass: 56 000 kg; Taxi-fuel: 800 kg; Contingency fuel: 900 kg; Alternate fuel: 700 kg; Final reserve fuel: 2 000 kg; Trip fuel: 18 000 kg. Determine the actual take-off mass:

a. 74 000 kg
b. 72 000 kg
c. 69 600 kg
d. 70 400 kg

139. The centre of gravity location of the aeroplane is normally computed along the:

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

140. In mass and balance calculations which of the following describes the datum?

a. It is the most foward position of centre of gravity.
b. It is the most aft position of centre of gravity.

c. It is the distance from the centre of gravity tothe pointthrough which the weightof the component acts.
d. It is the point on the aeroplane dsignated by the manufacturers from which all centre of gravity measurements and calculations are made.

141. With all other things remaining unchanged and with T the out side static air temperature expressed in degrees K, the hourly fuel consumption of turbojet powered aeroplane in a cruise flight with a constant Mach Number and zero headwind is as follows:

a. independent from T
b. proportional to $1/T^2$
c. proportional to 1/T
d. proportional to T

142. Two identical turbojet aeroplanes (whose specific fuel consumption is assumed to be constant) are in holding pattern at the same altitude. The mass of the first one is 95 000 kg its hourly fuel consumption is equal to 3 100 kg/h. Since the mass of the second one is 105 000 kg, its hourly fuel consumption is:

a. 3259 kg/h
b. 3602 kg/h
c. 3787 kg/h
d. 3426 kg/h

143. The requirements with regard to take-off flight path and the climb segments are only specified for:

a. the failure of the critical engine on a multi-engines aeroplane.
b. the failure of two engines on a multi-engines aeroplane.
c. the failure of any engine on a multi-engines aeroplane.
d. 2 engined aeroplane

144. The angle of climb with flaps extended, compared to that with flaps retracted, will normally be:

a. Increase at moderate flap setting, decrease at large flap setting.
b. Smaller.
c. Not change.
d. Larger.

145. Vx and Vy with take-off flaps will be:

a. changed so that Vx increases and Vy decreases compared to clean configuration.
b. higher than that for clean configuration
c. lower than that for clean configuration
d. same as that for clean configuration

146. How does TAS vary in a constant Mach climb in the troposphere?

a. TAS decreases.
b. TAS is not related to Mach Number
c. TAS is constant
d. TAS increases

147. At which minimum height will the second climb segment end?

a. 1500 ft above field elevation.
b. 35 ft above.
c. When gear retraction is completed.
d. 400 ft above field elevation.

148. A head wind will:

a. increase the angle of climb
b. increase the climb flight path angle.
c. shorten the time of climb
d. increase the rate of climb

149. Assuming that the required lift exists, which forces determine an aeroplane's angle of climb?

a. Weight and thrust only
b. Weight and drag only
c. Weight, drag and thrust
d. Thrust and drag only

150. How does the best angle of climb and best rate of climb vary with increasing altitude?

a. Both decrease.
b. Best angle of climb decreases while best rate of climb increases
c. Best angle of climb increases while best rate of climb decreases
d. Both increases

151. An operator shall ensure that the next take-off flight path clears all obstacles. The half-width of the obstacle-corridor at the distance D from the end of TODA is at least:

a. –90m + 1.125 D
b. 90m + D/0.125
c. 90m + 0.125D
d. 0.125D

152. What is the effect of tail wind on the time to climb to a given altitude?

a. The time to climb decreases.
b. The time to climb increases.
c. The effect on time to climb will depend on the aeroplane type.
d. The time to climb does not change.

153. Other factors remaining constant, how does increasing altitude affect Vx and Vy?

a. Vx will decrease and Vy will increase
b. Both will remain the same
c. Both will decrease.
d. Both will increase.

154. The optimum long-range cruise altitude for a turbojet aeroplane:

a. is independent of aeroplane mass
b. is always equal to the power plant ceiling
c. increases when the aeroplane mass decreases.
d. is only dependent on the outside air temperature.

155. Considering TAS for maximum range and maximum endurance, other factors remaining constant,

a. TAS for maximum range will increase with increased altitude while TAS for maximum endurance will decreased altitude.
b. both will increase with increasing altitude.
c. both will decrease with increasing altitude
d. both will stay constant regardless of altitude

156. For jet-engines aeroplanes, what is the effect of increased altitude on specific range?

a. Increases
b. Does not change
c. Decreases
d. Increases only if there is no wind.

157. Assuming constant L/D ratio, which of the diagrams provided correctly shows the movement of the “Thrust Requires Curve” (M1>M2). *Diagram 17.*

a. b
b. a
c. c
d. d

158. Long range cruise is a flight procedure which gives:

a. an IAS which is 1% higher than the IAS for maximum specific range
b. a specific range which is 99% of maximum specific range and a lower cruise speed.
c. a 1% higher TAS or maximum specific range.
d. specific rage which is about 99% of minimum specific range and higher cruise speed.

159. A twin engined aeroplane in cruise flight with one engine inoperative has to fly over ground. In order to maintain the highest possible altitude the pilot should choose:

a. the speed corresponding to the maximum value of the lift/drag ratio.
b. the speed corresponding to the minimum value of lift/drag 3/2.
c. the speed at the maximum lift.
d. the long range speed.

160. A flight is planned with a turbojet aeroplane to an aerodrome with a landing distance a available of 2 400m. which of the following is the maximum landing distance for a dry runway?

a. 1 250 m
b. 1 655 m
c. 1 090 m
d. 1 440 m

161. An aircraft is flying at Mach 0.84 at FL 330. The static air temperature is –48 degree C and the head wind component 52 kt. At 138 UTC the controller request the pilot to cross the meridian of 030W at 1500 UTC. Given the distance to go is 570 NM, the reduced Mach No. should be:

a. 0.72
b. 0.78
c. 0.80
d. 0.76

162. On a given path, it is possible to choose between four flight level (FL), each associated with a mandatory flight Mach Number (M). The flight condition, static air temperature (SAT) and head wind component (HWC) are given as: FL 370-M = 0.80 Ts = -60 degree C. FL 330-M = 0.78 Ts = - 60 degree C HWC = - 5 kt. FL 290-M = 0.80 Ts = - 55 degree C HWC= -15 kt. FL 270-M=0.76 Ts = -43 degree C HWC = 0. The flight level allowing the highest ground speed is:

a. FL 330
b. FL 370
c. FL 270
d. FL 290

163. A twin-jet aeroplane carries out the WASHING TON-PARIS flight. When it reaches point K (35 degree N – 048 degree W) a non-mechanical event makes the Captain consider rerouting to one of three following field The flight condition are: - from K to X (distance 847 NM, headwind component = 18 kt); - from K to Y (distance 1112 NM, tailwind component = 120 kt); - from K to Z (distance 883 NM, wind component = 0); With an aeroplane true airspeed of 460 kt, the field selected will be that more rapidly reached:

a. X or Y, or Z
b. X
c. Y
d. either Z or X

164. A public transport aeroplane with reciprocating engines is flying from HANOI to HCM City. The final reserve corresponds to:

a. 45 minutes at holding speed
b. 30 minutes at holding speed
c. 2 hours at cruise consumption
d. 1 hour at holding speed

165. In a flight plan when the destination aerodrome is A and the alternate aerodrome is B, the final reserve fuel for a turbojet engine aeroplane corresponds to:

a. 15 minutes holding 2000 feet above aerodrome A
b. 30 minutes holding 1500 feet above aerodrome B
c. 30 minutes holding 2000 feet above aerodrome B
d. 30 minutes holding 1500 feet above aerodrome A

166. The Trip Fuel for a jet aeroplane to fly from the departure aerodrome is 5 350 kg. Fuel consumption in holding mode is 6000 kg/h. The quantity of fuel which is needed to

carry out one go-around and land on the alternate airfield is 4380 kg. The destination aerodrome has a single runway. What is the minimum quantity of fuel which should be on board at take-off?

a. 13 050 kg
b. 12 700 kg
c. 13 000 kg
d. 10 000 kg

167. For turbojet engine driven aeroplane, given: Taxi fuel – 600 kg; Fuel flow for cruise – 10000 kg/h; Fuel flow for holding – 8000 kg/h; Alternate fuel – 10 200 kg; Planned flight time – 6 h; Forecast visibility at destination – 2000 m; The minimum ramp fuel required is:
a. 79 200 kg
b. 76 100 kg
c. 77 800 kg
d. 80 500 kg

168. If a pilot lands at a aerodrome other than the destination aerodrome specified in flight plan, he must ensure that the ATS unit at destination aerodrome is informed within a certain number of minutes of his planned ETA at destination. This number of minutes is:
a. 15
b. 10
c. 45
d. 30

169. An aeroplane is flying from an airport to another; In cruise, the calibrated airspeed is 150 kt, true airspeed 180 kt, average groundspeed 210 kt, the speed box on the filed flight plan shall be filled as follows:

a. K0150
b. N0180
c. K0210
d. K0180

170. A repetitive flight plan (RPL) filed for scheduled flight: “A” to “B”. “A” as alternate. Following heavy snow fall, “B” airport will be closed at the expected time of arrival. the airline decides before departure to plan a re-routing of that; flight to “C”.

a. The pilot-in-command must advise ATC of his intention to divert to “C” at least 15 minutes before the planned time of arrival.
b. It is not possible to plan another destination and the flight has to be simply cancelled that day (scheduled flight and not chartered)
c. The airline’s Operation Department has to transmit a change in RPL at the ATC office, at least half an hour before the planned time of departure.
d. The RPL must be cancelled for that day and a specific plan to be filed.

171. From the options given below select those flights which require flight plan notification: 1 – Any public transport; 2- Any IFR flight; 3- Any flight which is to be carried out in regions are designated to ease the provision of Alerting Service or the operations of Search and Rescue; 4- Any cross-border flights; Any flight which involves overflying water

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

172. An aeroplane files at a airspeed of 380 kt. It files from A to B and back to A. Distance AB = 480 NM. When going from A to B, it experiences a headwind component = 60 kt. The wind remains constant. The duration of flight will be:

a. 2h 35 min
b. 2h 32 min
c. 2h 10 min
d. 3h 00 min

173. VFR flights shall not be flown over the congested areas of cities at a height less than:

a. the highest obstacle
b. 2000 ft above the highest obstacle within a radius of 600 ft from the aircraft
c. 500 ft above the highest obstacle.
d. 1000 ft above the highest obstacle within a radius of 600 m from the aircraft.

174. How many feet you have to climb to reach FL 75? Given: FL 75 departure aerodrome elevation 1500 ft: QNH = 1023 hPa; temperature = ISA; 1 hPa = 30 ft

a. 6000 ft
b. 6600 ft
c. 6300 ft
d. 7800 ft

175. The required time for final reserve fuel turbojet aeroplane is:

a. Variable with wind velocity.
b. 45 min
c. 30 min
d. 60 min

176. Given: Dry operating mass (DOM) = 33 510 kg, Load = 7600 kg, Final reserve fuel = 983 kg, Alternate fuel = 1 100 kg, Contingency fuel = 102 kg. The estimated landing mass at alternate should be:

a. 42195 kg
b. 42312 kg
c. 42093 kg
d. 42210 kg

177. Given: Dry operating mass (DOM) = 33000 kg, Load = 8110 kg, Final reserve fuel = 983 kg, Alternate fuel = 1100 kg, Contingency fuel =102 kg. The estimated landing mass at alternate should be:

a. 41100 kg
b. 42312 kg
c. 42210 kg
d. 42195 kg

178. Given: Dry operating mass (DOM) = 33510 kg, Load = 7600 kg, Final reserve fuel = 983 kg, Alternate fuel = 1100 kg, Contingency fuel = 5 % of trip fuel. Which of the listed estimated mass is correct:

a. Estimated landing mass at destination = 43193 kg.
b. Estimated landing mass at destination = 43295 kg.
c. Estimated take-off mass = 43295 kg
d. Estimated take-off mass = 45233 kg

179. Given: Dry operating mass (DOM) = 33500 kg, Load = 7600 kg, Maximum allowable take-off mass = 66200 kg, Standard taxi fuel = 200 kg, Tank capacity = 16100 kg. The maximum possible take-off fuel is:

a. 16300 kg
b. 17300 kg
c. 15900 kg
d. 17100 kg

180. An operator (turbojet engine) shall ensure that calculation up to usable fuel for a flight for which no destination alternate is required includes, taxi fuel, trip fuel, contingency fuel and fuel to fly for:

a. 2 hours at normal cruise consumption
b. 30 minutes at holding speed at 450 m above aerodrome elevation in standard conditions
c. 30 minutes at holding speed at 450 m above MSL in standard conditions
d. 45 minutes plus 15% of the flight time planned to spent at cruising level or two hours whichever is less

181. “Pilot’s vertigo”:

a. the impression of flying straight and level while the aircraft is spinning
b. is a sensation of rotation during flight due to multiple imitation of several semicircular canals at the same time
c. a sudden loss of visual perception during flight due to multiple imitation of the utriculus and sacculus at the same time
d. the impression of climbing when banking

182. What is the name for the sensation rotation occuring during flight and which is caused by multiple imitation of several semicircular canals at the same time?

a. “Seat-of –Pants” illusions.
b. “Pilot’s” Vertigo
c. Graveyard spin.
d. Sudden incapacitation

183. Without visual reference, what illusion could the pilot get, when he is stopping the rotation to recover from a spin? He will get the illusion of

a. spinning into the opposite direction
b. spinning into the same direction
c. straight and level flight
d. climbing and turn into the original direction of the spin

184. Starting a coordinated level turn can make the pilot believe to

a. turn into the opposite direction
b. climb
c. descent
d. increase the rate of turn into the same direction

185. When accelerating forward the otoliths in the utriculus/sacculus will

a. give the illusion of banking
b. give the illusion of descending (body tilting downwards, or forwards, nose of the airplane going down)
c. give the illusion of climbing (body tilting backwards, nose of the a/c going up)
d. give the illusion of straight and level flight

186. A pilot, accelerating or decelerating in level flight may get:

a. the illusion of climbing or descending
b. the illusion to turn
c. the impression of stationary objects moving to the right or left
d. the feeling of rotation

187. The cupula in the semicircular canal will be bent, when a rotation begins. This is because

a. the fluid (endolymph) will preceed the accelerated canal walls
b. the cupula will stay in place and give the correct impression
c. the fluid (endolymph) within the semicircular canal lags behind the accelerated canal walls
d. the cupula will bend on constant angular speeds

188. The semicircular canals monitor

a. horizontal and vertical accelerations
b. gravity
c. angular accelerations
d. relative speed

189. Hypoxia effects visual performance. A pilot may:

a. be unable to maintain piercing vision below 5000 FT AGL
b. get colour blindness accompanied by severe headache
c. get blurred and/or tunnel vision
d. have a reduction of 25% in visual acuity at 8000 FT AGL

190. Changes in ambient pressure and accelerations during flight are important physiological factors limiting the pilots performance if not taken into consideration. Linear accelerations along the long axis of the body

a. are no interest when performing aerobatics
b. will have an effect on blood pressure and blood flow if the acceleration force acts across the body at right angles to the body axis
c. change blood pressure and blood volume distribution in the body

d. will not stimulate any of the vestibular organs

191. The 'ideal professional pilot" is, in behaviour,

a. rather "goal" than "person" oriented
b. neither 'person" or "goal" oriented
c. rather "person" than "goal" oriented
d. " person" and "goal" oriented

192. Using a checklist prior start is a contribution to

a. safety, because the concentration on the checklist items will draw the pilot's attention to flight related tasks, reducing distraction from personal stress
b. workload, because using checklist will increase the pilot's workload prior take-off
c. frustration
d. stress, because time pressure prior take-off is always present

193. The human performance is generally

a. better very early in the morning
b. better when relaxed, independent of period of day
c. constant throughout the day
d. always better in the evening and in the morning

194. Which of the following symptoms could a pilot get, when he is subjected to hypoxia? 1- Fatigue; 2- Euphoria; 3-Lack of concentration; 4- Pain in the joints; 5- Sensation of suffocation.

a. 1,2,3 and 4 are correct
b. 1,2 and 3 are correct
c. 4 and 5 are correct
d. Only 5 is false

195. When drugs against sleep disorders and/or nervosity have been taken and the pilot intends to fly, attention has to be paid to

a. the effect they have on hearing
b. schedule only those pilots, who show no reactions to these medications
c. the effect they have on reaction time and perceptional awareness
d. the fact that there is no difference in quality of sleep proceeded under the influence of the drug-free sleep

196. Drugs against allergies (antihistamines), when taken by an aviator can cause the following undesirable effects: 1- Drowsiness, dizziness; 2- Dry mouth; 3- Headaches; 4- Impaired depth perception; 5- Nausea.

a. 1,2,3,4 and 5 are correct
b. only 1 is correct
c. 2,3 and 4 correct
d. 3,4 and 5 are correct

197. The consumption of medicines or other substances may have consequences on qualification to fly for the following reasons: 1- The decrease requiring a treatment may be cause for disqualification; 2- Flight conditions may modify the reactions of the body

to a treatment; 3 – Drugs may cause adverse side effects impairing flight safety; 4- The effects of medicine do not necessarily immediately disappear when the treatment is stopped.

a. 1,2 and 3 are correct, 4 is false
b. 3 and 4 are false, 1 and 2 are correct
c. 1,2,3 and 4 are correct
d. only 2 is false.

198. Vitamin A and possibly vitamin B and C are chemical actors and essential to good night vision: 1- Vitamin deficiencies may decrease night vision performance; 2- An excess intake of vitamin A will improve night vision performance significantly; 3- Pilots should be carefully concerned to take a balanced diet containing sufficient vitamin A; 4-Vitamin deficiencies may decrease visual acuity in photopic vision but not in scotopic vision

a. Only 4 is false
b. 1 and 3 are false, 2 and 4 are correct
c. 1,2,3 and 4 are correct
d. 1 and 3 are correct, 2 and 4 are false

199. The atmospheric gas pressure

a. decreases linear with altitude
b. rises with altitude
c. dereases slower at lower altitudes compared with higher levels and equivalent altitude changes
d. drops faster at lower altitudes in comparison to the same altitude changes at higher altitudes

200. The certain amount of water vapor saturated air (i.e. intestinal gases) is transported from sea-level up to 4 000 ft. In the same amount of dry air, the volume of this gas is:

a. first larger, then smaller
b. constant
c. larger
d. smaller

201. At a certain position, the temperature on the 300 hPa chart is – 48 degree C; according the tropopause chart, the tropopause is at FL 330. What is the most likely temperature at FL 350?

a. –54 degree C
b. –50 degree C
c. –58 degree C
d. –56.5 degree C

202. In order to calculate QFE from QNH, which of the following must be known?

a. Bevation of the airfield.
b. Temperature at the airfield
c. Bevation of the airfield and temperature at MSL
d. Bevation and temperature at the airfield

203. Several physical processes contribute to atmosphere warning. Which of the following contribute the most?

a. Convection and condensation.
b. Absorption and evaporation.
c. Solar radiation and conduction.
d. Absorption and vaporization

204. What is the dry adiabatic lapse rate per 1000 FT?

a. 2.0 degree C
b. 3.5 degree C
c. 1.5 degree C
d. 3.0 degree C

205. At 200 hPa pressure altitude level can vary in height. In temperate regions which of the following average heights is applicable?

a. FL 100
b. FL 50
c. FL 300
d. FL 390

206. What is the approximate vertical interval which is equal to a pressure change of 1 hPa at an altitude of 5500 m?

a. 15 m (50 FT)
b. 32 m (105 FT)
c. 64 m (210 FT)
d. 8 m (27 FT)

207. A layer is conditionally unstable if the air

a. is unstable for saturated air and stable for dry air
b. is stable for saturated air and unstable for dry air
c. becomes stable by lifting it
d. is unstable for saturated air as well as for dry air

208. A parcel of unsaturated air is lifted to just below the condensation level and then returned to its original level. What is the final temperature of the parcel of the air?

a. Higher than starting temperature
b. It depends upon the QFE
c. Lower than starting temperature.
d. The same as the starting temperature

209. What is the effect of a strong low level inversion?

a. It prevents vertical windshear.
b. It promotes extensive vertical movement of air.
c. It promotes vertical windshear.
d. It results in good visual conditions.

210. The temperature at FL 140 is –12 degree C. What will the temperature be at FL 110 if the ICAO standard lapse rate is applied?

a. –18 degree C
b. –9 degree C
c. –6 degree C
d. –15 degree C

211. If atmospheric conditions exist such that the temperature deviation is ISA+10 degree C in the lower troposphere up to 18000 FT, what is the actual layer thickness between FL 60 and FL 120?

a. 6000 FT
b. 5760 FT
c. 6240 FT
d. 5900 FT

212. Which of the following is a common cause of ground or surface temperature inversion?

a. The movement of colder air under warm air, or the movement of warm air over cold air.
b. Warm air being lifted rapidly aloft, in the vicinity of mountainous terrain.
c. Terrestrial radiation on a clear night with no or very light winds.
d. Heating of air by subsidence

213. You intend to carry out a VFR flight over the Alps, when the weather is unstable. What is the best time of day to conduct this flight?

a. Morning
b. Mid-day
c. Afternoon
d. Early evening

214. During which stage of thunderstorm development are rotor winds characterized by roll clouds most likely to occur?

a. Dissipating stage.
b. Cumulus stage and mature stage.
c. Cumulus stage.
d. Mature stage

215. The wind indicator for a weather observation receives the measured value from an anemometer. Where is this instrument placed?

a. On a mast 8-10 m above the ground
b. 1 m above the run way
c. On the root of the weather station.
d. close to the station about 2 m above the ground.

216. You are flying with an outside air temperature of –12 degree C and a TAS of 250 kt at FL 150 through 8 oktas NS. What type and degree of icing is most probable?

a. Over flat terrain, away from fronts, moderate to severe mixed ice.
b. Over flat terrain, moderate hoar frost

c. In clouds pushed up against the mountains, moderate to severe mixed ice
d. In clouds pushed up against the mountains, moderate to severe rime ice

217. What is the relationship between meteorological visibility (met.vis.) and RVR in homogeneous fog?

a. The met.vis is generally less than the RVR
b. The met.vis is generally greater than the RVR
c. There is no specific relationship between the two
d. The met.vis generally is the same as the RVR

218. At what time of the year are tomadoes most likely to occur in North America?

a. Summer, autumn.
b. Autumn, winter.
c. Spring , summer
d. Winter

219. In central Europe when is the greatest likelihood for thunderstorms due to warm updraft?

a. Late morning
b. Around midnight
c. Early morning
d. Mid-afternoon

220. What are the meteorological prerequisites, at low level, for thunderstorm by lifting processes, over land?

a. High air pressure (> 1013 hPa), high temperature.
b. High temperature, high humidity..
c. Subsidence, inversion.
d. Low temperature, low humidity

221. An aircraft departs from position A (04 degree 10' S 178 degree 22' W) and flies northward following the meridian for 2950 NM. It then flies westward along the parallel of latitude for 382 NM to position B. The coordinates of position B are?

a. 45 degree 00'N 169 degree 22 W
b. 53 degree 20'N 172 degree 38'E
c. 45 degree 00'N 172 degree 38'E
d. 53 degree 20'N 169 degree 22'W

222. Given: Waypoint 1. 60 degree S 030 degree W; Waypoint 2. 60 degree S 020 degree W. What will be the approximate latitude shown on the display unit of an inertial navigation system at longitude 025 degree W?

a. 059 degree 49'S
b. 060 degree 00'S
c. 060 degree 06'S
d. 060 degree 11'S

223. The angle between the true great-circle track and the true rhumb-line joining the following points: A (60 degree S 165 degree W) B (60 degree S 177 degree E), at the place of departure A, is:

a. 9 degree
b. 15.6 degree
c. 5.2 degree
d. 7.8 degree

224. What is the time required to travel along the parallel of altitude 60 degree E and 030 degree W at a groundspeed of 480 kt?

a. 1 HR 45 MIN
b. 1 HR 15 MIN
c. 5 HR 00 MIN
d. 2 HR 30 MIN

225. Contour lines on aeronautical maps and charts connect points:

a. with the same variation
b. having the same elevation above sea level
c. having the same longitude
d. of equal latitude

226. A Rhumb line is:

a. a line convex to the nearest pole on a Mercator projection
b. the shortest distance between two points on a Polyconic projection
c. a line on the surface of the earth cutting all meridians at the same angle
d. any straight line on Lambert projection

227. A straight line on a Lambert Conformal Projection chart for normal flight planning purposes:

a. is a Rhumb line
b. is a Loxodromic line
c. can only be a parallel of latitude
d. is approximately a Great Circle

228. A chart has the scale 1: 1 000 000. From A to B on the chart measures 1.5 inches (one inch equals 2.54 centimetres), the distance from A to B in NM is:
a. 54.2
b. 38.1
c. 20.6
d. 44.5

229. Fuel flow per HR is 22 US-GAL, total fuel on board is 83 IMP GAL; What is the endurance?

a. 2 HR 15 MIN
b. 3 HR 12 MIN
c. 3 HR 53 MIN
d. 4 HR 32 MIN

230. What is the ratio between the litre and US-GAL?

a. 1 US-GAL equals 4.55 litres
b. 1 litre equals 3.78 US-GAL
c. 1 litre equals 4.55 US-GAL
d. 1 US-GAL equals 3.78 litres

231. Given: true track is 348 degree, drift 17 degree left, variation 32 degree W, deviation 4 degree E. What is the compass heading?

a. 359 degree
b. 337 degree
c. 033 degree
d. 007 degree

232. The circumference of the earth is approximately:

a. 5400 NM
b. 21600 NM
c. 10800 NM
d. 43200 NM

233. Isogonic lines connect position that have:

a. 0 degree variation
b. the same variation
c. the same elevation
d. the same angle of magnetic dip

234. The Local Mean Time at longitude 095 degree 20'W, at 0000 UTC, is:

a. 0621:20 previous day
b. 1738:40 same day
c. 0621:20 same day
d. 1738:40 previous

235. 5 HR 20 MIN 20 SEC corresponds to a longitude difference of:

a. 80 degree 05'
b. 81 degree 10'
c. 78 degree 45'
d. 75 degree 00'

236. What is the value of the magnetic dip at the magnetic south pole?

a. 60 degree
b. 45 degree
c. 0 degree
d. 90 degree

237. Which one of the following is an advantage o a remote reading compass as compared with a standby compass?

a. It is lighter than a direct reading compass because it employs, apart from the detector unit, existing aircraft equipment
b. It senses the magnetic meridian instead of seeking it, increasing compass sensitivity
c. It eliminates the effect of turning and acceleration errors by pendulously suspending the detector unit
d. It is more reliable because it is operated electrically and power is always available from sources within the aircraft.

238. Which of the following statements is correct concerning the effect of turning errors on a direct reading compass?

a. Turning errors are greatest on east/west headings, and are greatest at high latitudes
b. Turning errors are greatest on east/west headings, and are least at high latitudes
c. Turning errors are greatest on north/south headings, and are greatest at high latitudes
d. Turning errors are greatest on north/south headings, and are least at high latitudes

239. Which of following is an occasion for carrying out a compass swing on a Direct Reading Compass?

a. After an aircraft has passed through a severe electrical storm, or has been struck by lightning
b. Whenever an aircraft carries a large freight load regardless of its content
c. Before an aircraft goes on any flight that involves a large change of magnetic latitude
d. After any of aircraft radio equipment has been changed due to unserviceability

240. When an aircraft on a westerly heading on the northern hemisphere accelerates, the effect of the acceleration error cause the magnetic compass to:

a. lag behind the turning rate of the aircraft
b. to turn faster than the actual turning rater of the aircraft
c. indicate a turn towards the south
d. indicate a turn towards the north

241. An RMI slaved to a remote indicating compass has gone unserviceable and is locked on to reading of 090 degree. The tail of the VOR pointer show 135 degree. The available information from VOR is:

a. Radial 315 degree, relative bearing unknown
b. Radial 135 degree, relative bearing unknown
c. Radial unknown, relative bearing 045 degree
d. Radial unknown, relative bearing 225 degree

242. What is the colour sequence when passing over an Outer, middle and Inner Maker beacon?

a. blue – green – white
b. amber – white – green
c. white – amber – blue
d. blue – amber – white

243. In a Satellite-Assisted Navigation System (GNSS/GPS), a fix is obtained by:

a. the aircraft's receiver measuring the phase angle of signals received a number of satellites in known positions
b. measuring the pulse lengths of signals received from a minimum number of satellites received in a specific sequential order
c. measuring the time taken for an aircraft's transmissions to travel a number of satellites, in known position, and return to the aircraft's receiver
d. measuring the time taken for a minimum number of satellites' transmissions, in known positions, to reach the aircraft's receiver

244. The VOR system is limited to about 1 degree of accuracy. One degree at 200 NM represents a width of:

a. 3.0 NM
b. 2.0 NM
c. 3.5 NM
d. 2.5 NM

245. An aircraft is "horning" to a radio beacon whilst maintaining a relative bearing of zero; If the magnetic heading decreases, the aircraft is experiencing:

a. zero drift
b. a wind from the west
c. left drift
d. right drift

246. Given: Compass heading 270 degree, Deviation 2 degree W, Variation 30 degree E, Relative bearing 316 degree. what is the QDR?

a. 224 degree
b. 044 degree
c. 046 degree
d. 226 degree

247. In which frequency band does an ILS glide slope transmit?

a. EHF
b. VHF
c. UHF
d. SHF

248. What is the minimum number of satellites required by a GPS in order to obtain a three dimensional fix?

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

249. An aircraft is flying an a heading of 270 degree (M). The VOR OBS is also set to 270 degree with the full left deflection and FROM flag displayed. In which sector is the aircraft from the VOR ground station?

a. SW
b. NE
c. SE
d. NW

250. ADF bearings by an aeroplane by day within the published protection rage should be accurate to within a maximum error of:

a. +/- 2.5 degree
b. +/- 10 degree
c. +/- 7 degree
d. +/- 2 degree

251. In which navigation system does the master station transmit a continuous string of pulses on a frequency close to 100 kHz?

a. GPS
b. Loran C
c. Decca
d. Doppler

252. What is the wave length of an NDB transmitting on 375 kHz?

a. 8 m
b. 8000 m
c. 80 m
d. 800 m

253. The two signals transmitted by a conventional VOR ground station are 90 degree out of phase on magnetic:

a. east
b. south
c. west
d. north

254. In which frequency band do VOR transmitters operate?

a. SHF
b. EHF
c. UHF
d. VHF

255. A primary radar operates on the principle of:

a. continuous wave transmission
b. pulse technique
c. transponder interrogation
d. phase comparison

256. Which of following is likely to have the greatest effect on ADF accuracy?

a. Interference from other NDBs, particularly during the day
b. Interference from other NDBs, particularly at night

c. Frequency drift at the ground station
d. Mutual interference between aircraft aerials

257. Assuming a five dots display, what does each of the dots on either side of ILS localizer cockpit display represent:

a. 1.5 degrees
b. 2.0 degrees
c. 2.5 degrees
d. 0.5 degrees

258. Outer maker transmits on 75 MHz and has an aural frequency of:

a. 3000 Hz
b. 1300 Hz
c. 2000 Hz
d. 400 Hz

259. In order to enter a waypoint that is designated by a VOR into an RNAV, the VOR:

a. does not have to be in range when entered but must be used when used
b. must in range
c. has to be positively identified by one of the pilots
d. does not have to be in range when entered or used

260. Which of the following statements concerning LORAN-C is correct?

a. It is a hyperbolic navigation system that works on the principle of range measurement by phase comparison
b. It is navigation system based on simultaneous ranges being received from a minimum of four ground stations
c. It is navigation system based on secondary radar principles; position lines are obtained in sequence from up to eight ground stations
d. It is a hyperbolic navigation system that works on the principle of differential range by pulse technique.

261. The amplitude modulation and the colour of an outer maker (OM) is:

a. 1300 Hz, blue
b. 3000 Hz, blue
c. 400 Hz, blue
d. 400 Hz, amber

262. An RMI indicates aircraft heading. to convert the RMI bearings of NDBs and VORs to true bearings the correct combination for the application of magnetic variation is:

a. NDB: beacon position; VOR: aircraft position
b. NDB: aircraft position: VOR: aircraft position
c. NDB: aircraft position: VOR: beacon position
d. NDB: beacon position; VOR: beacon position

263. An aircraft is flying on the true track 090 degree towards a VOR station located near the equator where the magnetic variation is 15 degree E. The variation at the aircraft position is 8 degree E. The aircraft is on VOR radial:

a. 262 degree
b. 278 degree
c. 255 degree
d. 285 degree

264. Given: magnetic heading 280 degree; VOR radial 090 degree. what bearing should be selected on the omni-bearing selector in order to centralise the VOR deviation needle with a “TO” indication?

a. 280 degree
b. 270 degree
c. 090 degree
d. 100 degree

265. A VOR is sited at position 58 degree 00’ N 073 degree 00’ W where the magnetic variation equals 32 degree W; An aircraft is located at position 56 degree 00’ N 073 degree 00’ W where the magnetic variation equals 28 degree W; The aircraft is on VOR radial:

a. 180
b. 360
c. 212
d. 208

266. In order to plot a bearing from a VOR station, a pilot needs to know the magnetic variation:

a. at the half-way point between the aircraft and the station
b. at both the VOR and the aircraft
c. at the VOR
d. at the aircraft location

267. An aircraft DME receiver does not lock on to its own transmissions reflected from the ground because:

a. the pulse recurrence rates are varied
b. DME transmits twin pulses
c. they are not on the receiver frequency
d. DME uses the UHF band

268. The DME (Distance Measuring Equipment) operates within the following frequencies:

a. 962 to 1213 MHz
b. 108 to 118 MHz
c. 329 to 335 MHz
d. 962 to 1213 MHz

269. A DME is located at MSL. An aircraft passing vertically above the station at flight level FL 360 will obtain a DME range of approximately:

a. 6 NM
b. 11 NM
c. 8 NM

d. 7 NM

270. During a flight at FL 210, a pilot does not receiver any DME distance from a DME station loocated approximately 220 NM away. The reason for this is that the:

a. altitude is too high
b. range of a DME system is always less than 200 NM
c. aeroplane is circling around the station
d. aeroplane is below the “line of sight” altitude

271. Which of the following will give the most accurate calculation of aircraft ground speed?

a. A DME station sited on the flight route
b. A DME station sited across the flight route
c. A VOR station sited on the flight route
d. An ADF station sited on the flight route

272. What is the approximate angular coverage of reliable navigation information for a 3 degree ILS glide path out to a distance of 10 NM?

a. 0.45 degree above the horizontal to 1.75 degree above the glide path and 8 degree each side of the localiser centreline
b. 1.35 degree above the horizontal to 5.25 above the horizontal and 8 degree each side of the localiser centreline
c. 0.7 degree above and below the glide path and 2.5 each side of the localiser centreline
d. 3 degree above and below the glide path and 10 degree each side of the localiser centreline

273. ILS is subject to false glide paths resulting from:

a. spurious signals reflected by nearby obstacles
b. multiple lobes of radiation patterns in the vertical plane
c. ground returns ahead of the antennas
d. back-scattering of antennas

274. When Mode C is selected on the aircraft SSR transponder the additional information transmitted is:

a. flight level based on 1013.25 hPa
b. height based on QFE
c. altitude based on regional QNH
d. aircraft height based on sub-scale setting

275. The ground Secondary Surveillance Radar (SSR) equipment incorporates a transmitter and receiver respectively operating in the following frequencies: Transmitter / Receiver

a. 1030 MHz / 1030 MHz
b. 1030 MHz / 1090 MHz
c. 1090 MHz / 1090 MHz
d. 1090 MHz / 1030 MHz

276. Assuming sufficient transmission power, the maximum range of a ground radar with a pulse repetition frequency of 450 pulses per second is: (Given: velocity of light is 300000 km /second)

a. 1333 km
b. 333 km
c. 666 km
d. 150 km

277. A VOR is sited at position A (45 degree 00' N, 010 degree 00' E). An aircraft is located at position B (44 degree 00' N, 010 degree 00' E). Assuming that the magnetic variations at A is 10 degree W and at B is 15 degree W, the aircraft is on VOR radial:

a. 180 degree
b. 190 degree
c. 185 degree
d. 195 degree

278. A DME station is located 1000 feet above MLS. An aircraft flying at FL 370, 15 NM away from DME station, will have a DME reading of:

a. 17 NM
b. 16 NM
c. 15 NM
d. 14 NM

279. What is the approximate maximum theoretical range at which an aircraft at FL 130 could receive information from a VDF facility which is sited 1024 FT above MLS?

a. 150 NM
b. 120 NM
c. 220 NM
d. 180 NM

280. The maximum theoretical range at which an aircraft at FL 80 obtain bearing from a ground VDF facility sited 325FT above MLS is?

a. 107 NM
b. 158 NM
c. 134 NM
d. 114 NM

281. When refuelling is being performed while passenger are boarding or disembarking the aircraft, it is necessary that: (Annex 6 Part I)

a. All the flight crew be on board.
b. The aircraft's stairs be completely extended
c. Refuelling is prohibited while passengers are boarding abd/or disembarking.
d. Communications be maintained between ground personnel and qualified personnel on board.

282. Aircraft using a VFR flight plan in controlled airspace shall be eqiupped: (Annex 6, Part I)

a. As is necessary for aircraft that operate in accordance with instrument flight rules.
b. Only as is necessary for aircraft that make VFR flights.
c. As is necessary for aircraft make VFR flights, and such aircraft must also possess indicators of attitude and course, along with a precise barometric altimeter.
d. With more anti-icing and/or de-icing devices (if one expects icy conditions)

283. About procedures for noise attenuation during landing:

a. Such procedures do not exist.
b. They prohibit the use of reverse thrust.
c. They are applied in the case of an instrument approach only
d. Such procedures will not involve the prohibition of using reverse thrust.

284. During a landing approach, the aircraft is subjected to windshear with a decreasing tail wind. In the absence of a pilot action, the aircraft: 1- flies above the glide path; 2- flies below the glide path; 3- has an increasing true airspeed; 4- has a decreasing true airspeed; the combination of correct statements is:

a. 1,3
b. 1,4
c. 2,4
d. 2,3

285. After take-off, an aircraft is subjected to windshear with a decreasing head wind. In the absence of a pilot action, the aircraft: 1- flies above the climb-out path; 2- flies below the climb-out path; 3- has an increasing true airspeed; The combination of correct statements is:

a. 2,4
b. 2,3
c. 1,3
d. 1,4

286. The operator will include in the operations manual a list of minimum required equipment approved by: (Annex 6, Part I)

a. The country where the aircraft is operated.
b. The country where the aircraft was manufactured.
c. It is not madatorythat such book be approved by aviation authorities.
d. The country of the operator

287. If the EPR probe becomes covered with ice, EPR indications will be:

a. Equal to actual.
b. Dependent on the temperature.
c. Less than the actual.
d. Greater than the actual.

288. If smoke appears in the air conditioning, the first action to take is to:

a. Begin an emergency descent.
b. Put on the mask and googles.
c. Cut off all air conditioning units.
d. Determine which system is causing the smoke.

289. During a flight to Europe, scheduled in MNPS (Minimum Navigation Performance Specification) airspace, you expect to cross the 30 degree W meridian at 1000 UTC ; you will normally be:

a. out of the organised route system.
b. in random airspace.
c. in a day flight route system.
d. in a night flight route system.

290. During a flight to Europe, scheduled in MNPS (Minimum Navigation Performance Specification) airspace, you expect to cross the 30 degree W meridian at 2330 UTC ; you will normally be:

a. out of the organised route system.
b. in a night flight route system.
c. in random airspace.
d. in a day flight route system.

291. The regulatory green navigation light is located on the starboard wing tip, with a coverage angle of:

a. 140 degree
b. 70 degree
c. 110 degree
d. 220 degree

292. The validity period of a flight track system organized in MNPS (Minimum Navigation Performance Specification) airspace during an Eastbound flight normally is:

a. 10H30 UTC to 19H00 UTC
b. 11H30 UTC to 19H00 UTC
c. 00H00 UTC to 08H00 UTC
d. 01H00 UTC to 08H00 UTC

293. The validity period of a flight track system organized in MNPS (Minimum Navigation Performance Specification) airspace during an Westbound flight normally is:

a. 10H30 UTC to 19H00 UTC
b. 11H30 UTC to 19H00 UTC
c. 00H00 UTC to 08H00 UTC
d. 01H00 UTC to 08H00 UTC

294. The abbreviation MNPS means:

a. Magnetic Navigation Performance Specification
b. Minimum Navigation Performance Specification
c. Maximum Navigation Performance Specification
d. Main Navigation Performance Specification

295. The determination of aerodrome minimum operating conditions must take the following into account: 1- equipment available for navigation; 2- dimensions and characteristics of the runways; 3- composition of the flight crew; 4. obstacles in the vicinity of approach

and missed approach areas; 5- facilities for determining and communicating the weather conditions; The combination regrouping all the correct statements is:

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

296. A water fire extinguisher can be used without restriction for: 1- a paper fire; 2-a hydrocarbon fire; 3- a fabric fire; 4- an electrical fire; 5- a wood fire. The combination regrouping all the correct statements is:

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

297. The information concerning dangerous goods that passenger may carry, are listed in the:

a. aircraft's flight manual.
b. VAR-OPS documentation.
c. ICAO document named "Technical instructions for the air transportation of dangerous goods"
d. IATA document "Dangerous products transportation"

298. The protection time of an anti-icing fluid depends on: 1- the type and intensity of the showers; 2- the ambient temperature ;3- the relative humidity; 4- the direction and speed of the wind; 5-the temperature of the airplane skin; the type of fluid, its concentration and temperature. The combination regrouping all the correct statements is:

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

299. The anti-icing fluid protecting film can wear off and reduce considerably the protection time:

a. during strong winds or as a result of the other aircraft engines jet wash.
b. when the temperature of the airplane skin is closed to 0 ^{0}C
c. when the airplane is into the wind
d. when the outside temperature is close to 0 ^{0}C

300. After landing, incase of high temperature of brakes you:

a. apply the parking brake and you approach the wheels either from fore or aft.
b. release the parking brake and you approach the wheels either from aft or fore
c. release the parking brake and you approach the wheel sidewards
d. aply the parking brke and you approach teh wheels sidewards.

301. For a given aircraft and runway contamination, increased pressure altitude will:

a. increases the hydroplaning speed.
b. maintains the hydroplaning speed.
c. maintains or increases the hydroplaning speed.
d. decreases the hydroplaning speed.

302. When leaving the MNPS oceanic control area for a domestic controlled area, the pilot has to:

a. take the Mach number provided for this type of flight by his airline.
b. take any Mach number.
c. take Mach number specified in this initial flight plan.
d. maintain the Mach number previously assigned up to the last position shown in the oceanic clearance.

303. A polar stereographic chart has a grid printed over it which is parallel to the meridian 054 degreeW, with Grid North in the direction of the North geographic pole. An aircraft is following a true course of 330 degree. At position 80 degreeN 140 degreeE, its grid heading (GH) with this system will be:

a. 360 degree
b. 276 degree
c. 164 degree
d. 136 degree

304. A polar stereographic chart has whose grid parallel with Greenwich meridian in the direction of the true North pole. The “true” North pole, the “true” orientation of the great circle linking point 62 degreeN 010 degreeE to point 66 degreeN 050 degreeW is 305 degree. The grid route at the starting point of this great circle is:

a. 301 degree
b. 298 degree
c. 292 degree
d. 295 degree

305. The chart is south a South polar stereographic projection of the Antarctic regions. A grid, printed over it, its aligned with meridian 180 degree, the grid North in the direction of the geographic North (non standard grid). The grid course followed by the by the aircraft is Rg=280 degree, the position is 80 degreeS 100 degreeE. The true course followed at this moment is:

a. 260 degree
b. 000 degree
c. 080 degree
d. 100 degree

306. MNPS is the abbreviation for:

a. Military Network Performance Structure.
b. Maximum North-allantic Precision System.
c. Minimum Navigation Performance Specification.
d. Minimum Navigation Positioning System.

307. In MNPS airspace, the speed reference is the:

a. indicated airspeed.
b. true airspeed.
c. ground speed.
d. Mach number.

308. The terminal VOR transmittes the following weather data. when do you expect carburettor icing?

a. Outside Air Temperature (OAT): -10 degree C; Dew point(DEWP): -15 degree C.
b. Outside Air Temperature (OAT): +25 degree C; Dew point(DEWP): +5 degree C
c. Outside Air Temperature (OAT): +10 degree C; Dew point(DEWP): +7 degree C
d. Outside Air Temperature (OAT): +15 degree C; Dew point(DEWP): -5 degree C

309. Viscous hydroplaning occurs primary if the runway is covered with a thin film of water and:

a. is very smoothand clean.
b. is very smooth and dirty.
c. is rough textured.
d. the tyre treads are not in a good state.

310. A category I precision approach (CAT I) has:

a. no decision hight.
b. a decision height equal to at least 50 ft.
c. a decision height equal to at least 200 ft.
d. a decision height equal to at least 100 ft.

311. After landing, with overweight and overspeed conditions, the tyres and brakes are extremely hot. the fireguards should approach the landing gear tyres:

a. only from front or rear side.
b. from any side.
c. under no circumstances.
d. only from left or right side.

312. Beneath fire extinguishers the following equipment for fire fighting is on board:

a. a hydraulic winch and a big box of tools.
b. a big bunch of fire extinguishing blankets.
c. water and all type of beverage.
d. crash axes or crownbars.

313. Selecting an alternate aerodrome the runway of this facility must be sufficiently long to allow a full stop lading from 50 ft above the threshold (jet type aircraft, dry runway) within:

a. 50% landing distance available.
b. 80% landing distance available.
c. 70% landing distance available.
d. 60% landing distance available.

314. Flight crew members on the flight deck shall keep their safety belt fastened:

a. while at their station.
b. only during take off and landing.
c. only during take off and landing and whenever necessary by the commander in the interest of safety.
d. from take off to landing.

315. Who shall provide the flight operations personal with a operations manual and also issue the amendments to keep it up to date?

a. Aircraft producer.
b. Aircraft operator.
c. ATS authority of state of registry.
d. Ower of the aircraft.

316. For an operation in MNPS airspace along notified special routes unless otherwise specified, an aircraft must be equipped with at least:

a. Two Inertial Navigation Systems (INS)
b. One Inertial Navigation System (INS)
c. Two Long Range Navigation Systems (LRNS)
d. One Long Range Navigation System (LRNS)

317. In a 5 kt right crosswind component behind a taking off aircraft:

a. The runway will be clear of any hazard turbulence.
b. The left wake turbulence stays approximately on the runway.
c. The right and left wake turbulence stays approximately on the runway.
d. The right wake turbulence stays approximately on the runway.

318. The safety position for adults looks like: seat belt fastened,

a. head down as far as possible, grasp the legs with your arms.
b. head placed on a knee cushion, arm around the thigh.
c. head down as far as possible, grasp the passenger in front of you.
d. cross the arm in front of the face.

319. The presence of dynamic hydroplaning depends primarily on the:

a. strength of the headwind.
b. depth of the standing water on the runway.
c. amount of the lift off speed.
d. aircraft's weight.

320. In order to meet the "twin-engine" flight standards authorised by the official departments of his company (1 hours 45 minutes flight on 1 engine at an airspeed of 420 kt to reach the alternate aerodromes in still air conditions), a pilot has to choose an ATC route, in MNPS area, while at the same time taking the shortest possible time. Given that the three alternate aerodrome taken into account are SHANNON, SANTAMARIA, ST JOHN TORBAY, the track to be chosen between PARIS and WASHINGTON will be:

a. Track D, time 8 hours 20 minutes.
b. Track B, time 8 hours 10 minutes.
c. Track C, time 8 hours 15 minutes.

d. Track A, time 8 hours 3 minutes.

321. The angle of attack (aerodynamic angle of incidence) aerofoil is angle between the:

a. bottom surface and the chord line.
b. bottom surface and the horizontal
c. chord line and the relative undisturbed air flow.
d. bottom surface and the relative airflow

322. In a stationary subsonic streamline flow pattern, if the streamlines converge, in this part of the pattern, the static pressure (I) will ..... and the velocity (II) will.....

a. (I) increase, (II) decrease.
b. (I) increase, (II) increase.
c. (I) decrease,. (II) increase
d. (I) decrease,. (II) decrease

323. The units of the density of the air (I) and the force (II) are:

a. (I) kg/m2, (II) kg.
b. (I) kg/m3, (II) N.
c. (I) N/kg, (II) kg
d. (I) N/m3, (II) N.

324. The units of wing loading (i) W/S and (II) dynamic pressure q are:

a. (I) N/m2, (II) N/m2.
b. (I) N/m3, (II) kg/m2
c. (I) kg/m, (II) N/m2
d. (I) N/m, (II) kg

325. The aeroplane drag in straight and level flight is lowest when the:

a. induced drag is equal to zero,
b. parasite drag equals twice the induced drag.
c. induced drag is lowest
d. parasite drag is equal to the induced drag.

326. Considering a positive cambered aerofoil, the pitch moment when Cl = 0 is:

a. equal to zero
b. negative (pitch – down)
c. positive (pitch – up)
d. infinitive

327. On a non swept wing, when the aerofoil is accelerated from subsonic speeds, the aerodynamic centre:

a. remains unchanged
b. shifts from 25% about 50% of the aerofoil chord.
c. shifts aft by about 10%
d. slightly shifts forward.

328. On a symmetrical aerofoil, the pitch moment for which Cl = 0 is:

a. equal to the moment coefficient for stabililized angle of attack,
b. negative (pitch-down)
c. positive (pitch –up)
d. zero

329. The lift coefficient (CL) of an aeroplane in steady horizontal flight is 0.4. Increase of angle of attack of 1 degree will increase CL by 0.09. A vertical up gust instantly changes the attack by 5 degrees. The load factor will be:

a. 1.09
b. 2.13
c. 3.18
d. 2.0

330. A aeroplane maintains straight and level flight while the IAS is doubled. The change in lift coefficient will be:

a. x 4.0
b. x 2.0
c. x 0.25
d. x 0.5

331. An aeroplane has the following flap settings: 0 degree, 15 degree, 30 degree and 45 degree. Slat can be selected too. Which of the above selections will produce the greatest negative influence on the CL/CD ratio?

a. Flaps from 15 degree to 30 degree
b. Flaps from 30 degree to 45 degree
c. The slats.
d. Flaps from 0 degree to 15 degree

332. After take-off the slats (when installed) are always retracted later then the flaps. Why?

a. Because VMCA with SLATS EXTENDED is more favourable compared to the FLAPS EXTENDED situation.
b. Because FLAPS EXTENDED gives a large decrease in stall speed with relative less drag.
c. Because SLATS EXTENDED gives a large decrease in stall speed with relatively less drag.
d. Because SLATS EXTENDED provides a better view from the cockpit than FLAPS EXTENDED.

333. Upon extension of a spoiler on a wing:

a. CD is increased and CL decreased.
b. both CL and CD are increased
c. only CL is decreased (CD remains un affected).
d. CD is increased, while CL remains unaffected.

334. When “spoilers” are used as speed brakes:

a. they do not affect wheel braking action during landing.

b. at the same angle of attack, CD is increased and CL is decreased
c. CLmax of the polar curve is not affected
d. at the same angle of attack, CL remains unaffected.

335. During initiation of a turn with speed brakes extended, the roll spoiler function includes a spoiler deflection:

a. on the downgoing wing only.
b. upward on the upgoing wing and downward on the downgoing wing.
c. downward on the upgoing wing and upward on the downgoing wing.
d. on the upgoing wing only.

336. Compared with stalling airspeed (VS) in a given configuration, the airspeed at which stick shaker will be triggered is:

a. 1.12 VS
b. 1.20 VS
c. 1.30 VS
d. greater than VS.

337. VMO:

a. is the calibrated airspeed at which MMO reached at 35 000 ft
b. is equal to the design speed for maximum gust intensity.
c. should be chosen in between VC and VD
d. should be not greater than VC.

338. The term angle of attack in a two dimensional flow is defined as:

a. the angle between the wing chord line and the direction of the relative wind/ airflow.
b. the angle for maximum lift/drag ratio
c. the angle formed by the longitudinal axis of the aeroplane and the chord line of the wing
d. the angle between the aeroplane climb path and the horizon.

339. The term “q” and “S” in lift formula are:

a. square root of surface and wing loading
b. static pressure and dynamic pressure
c. dynamic pressure and the area of the wing
d. static pressure and wing surface area

340. The critical angle of attack:

a. changes with an increase in gross weight
b. decreases if the CG is moved aft
c. increases if the CG is moved forward
d. remains unchanged regardless of gross weight

341. What does the term ‘blind transmission” mean?

a. A transmission of information relating to air navigation that is not addressed to a specific station or stations.

b. A transmission of messages relating to en-route weather information which may affect the safety of aircraft operation that is not addressed to a specific station or stations.
c. A transmission where no reply is required from the receiving station.
d. A transmission from one station to another station in circumstances where two-way communication can not be established but it is believed that the called station is able to receive the transmission.

342. Which word or phrase shall be used if you want to say: "Wait and I will call you"?

a. Go ahead.
b. Roger.
c. Standby.
d. Wilco

343. The clearance: " cleared for immediate take-off runway 03" is:

a. A flight safety message
b. An urgency message
c. A flight regularity message
d. An authorized message.

344. The order of priority of the following messages in the aeronautical mobile service is:

a. Direction finding message, distress message, urgency message.
b. Meteorological message, direction finding message, flight regularity message.
c. Distress message, urgency message, direction finding message.
d. Distress message, flight regularity message, urgency message

345. The order of priority of the following messages in the aeronautical mobile service is:

a. Flight safety message, meteorological message, flight regularity message.
b. Flight safety message, direction finding message, flight regularity message.
c. Meteorological message, direction finding message, flight safety message.
d. Flight regularity message, distress message, meteorological message

346. The priority of pilot's message "request QDM" is:

a. Greater than 'turn left heading..."
b. Less than " request climb to flight level ..."
c. Less than "descend to flight level ... "
d. Same as " latest QNH 1018 "

347. My message will be more effective and understandable if I:

a. Maintain the speaking volume at a constant level
b. Use the word twice method
c. Stress the end of message
d. Stress every beginning of message

348. What is meant by good microphone technique?

a. Use a normal conservation tone, speak clearly and distinctly
b. Speak very loudly into microphone.

c. Keep the microphone far away since it improved the readability.
d. Make large use of hesitation sound as “er”

349. During the transmission of numbers containing a decimal point:

a. The term DECIMAL can be omitted with friendly ATS units only
b. The term DECIMAL must always be transmitted
c. The term DECIMAL must be spoken only if followed by three digits
d. The term DECIMAL can be omitted if no chance of misunderstanding exists.

350. Which phraseology is to be used to ask the control tower for permission to taxi on a runway in the direction opposite to that in use?

a. “Clearance to backtrack”
b. “Backtrack clearance”
c. “To enter back runway”
d. “Request backtrack on runway”

351. The time is 9:20 A.M . What is the correct way of transmitting this time if there no possibility of confusion about the hour?

a. Two zero.
b. Two zero this hour
c. Nine twenty A.M
d. Twenty.

352. What does the phrase “Go ahead” mean:

a. Taxi on
b. Yes
c. Proceed with your message
d. Pass me the following information ...

353. What does the phrase ”Roger” mean:

a. A direct answer in negative
b. Cleared for take-off or cleared to land
c. I have received all of your last transmission
d. A direct answer in the affirmative

354. Which of these statements best describes the meaning of the phrase “Standby”?

a. Continue on present heading and listen out
b. Permission granted for action proposed
c. Select STANDBY on the SSR transponder
d. Wait and I will call you

355. What does the phrase “Read back” mean:

a. Let me know that you received and understood this message
b. Repeat all, or the specified part, of this message back to me exactly as received
c. Did you correctly receive this message?
d. Check and confirm with originator

356. Which phrase shall be used if you want to say “I should like to know....” or “ I wish to obtain .....”

a. Report
b. Request
c. Acknowledge
d. Confirm

357. Which phrase shall be used if you want to say: “Pass me the following information ....”

a. Say again
b. Check
c. Request
d. Report

358. Which phrase shall be used to confirm that a message has been repeated correctly:

a. Correct
b. That is affirmative
c. That is right
d. Affirm

359. The message addressed to an Area Control Center ‘request radar vectors to circumnavigate adverse weather” is:

a. An urgency message.
b. A message relating to direction finding.
c. A meteorological message.
d. A fight safety message.

360. Air traffic control messages (clearances, instructions, ...) belong to the category of:

a. Service messages.
b. Flight regularity messages.
c. Flight safety messages.
d. Class B messages.

361. What does the term “broadcast “ mean?

a. A transmission where no reply is required from the receiving station.
b. A transmission of information relating to air navigation that is not addressed to a specific station or stations.
c. A transmission of information containing meteorological and operational information to aircraft engaged in flights over remote and oceanic areas out of range of VHF ground stations.
d. A radiotelephony transmission from ground to aircraft in flight.

362. What does the term “air-ground communication mean?

a. Two-way communication between aircraft and stations or locations on the surface of the earth.
b. One-way communication from aircraft to stations or locations on the surface of the earth.
c. One-way communication from stations or locations on the surface of the earth.

d. Any communication from aircraft to ground station requiring handling by the Aeronautical Fix Telecommunication Network (AFTN).

363. Which word or phrase shall be used to indicate that a change has been made to your last clearance and this new clearance supersedes your previous clearance or part thereof?

a. Cleared.
b. Recleared.
c. Break break.
d. Approved.

364. What does the word “recleared“ mean?

a. Consider that transmission as not sent.
b. An error has been made in last transmission.
c. Permission for proposed action granted.
d. A change has been made to your last clearance.

365. What does the word “report“ mean?

a. Say again
b. Repeat all of this message back to me exactly as received
c. Examine a system or procedure
d. Pass me the following information.

366. Which word or phrase shall be used if you want to say: “ Reduce your rate of speech”?

a. Repeat.
b. Say again.
c. Speak slower.
d. Words twice.

367. What does the word ‘wilco’ mean?

a. I understand your message and will comply with it.
b. I read you five
c. As communication is difficult, I will call you later.
d. I have received all of your last transmission.

368. What is the radiotelephony call sign suffix for the aeronautical station providing radar service(in general)?

a. RADAR-SERVICE
b. RADAR-CONTROL
c. CONTROL
d. RADAR

369. What is the radiotelephony call sign suffix for the aeronautical station indicating clearance delivery?

a. DELIVERY
b. CLEARANCE
c. CLEARANCE DELIVERY

d. RADIO

370. When an aircraft station receives the call " ALL STATIONS Stephenville RADAR, stop transmitting MAYDAY" it is requested:

a. To continue normal communication on the frequency in use
b. To leave the frequency in use.
c. To assist Stephenville RADAR in handling the distress traffic.
d. Not to interfere with the distress communication.

371. When an aircraft station receives the call " ALL STATIONS Stephenville RADAR, distress traffic ended" it is requested:

a. To resume normal communication with Stephenville RADAR.
b. Acknowledge receipt of this message.
c. Discontinue communication with Stephenville RADAR.
d. To impose silence to other stations in its vicinity.

372. What does the word 'negative' mean?

a. That is not correct
b. Annul the previously transmitted clearance.
c. I say again.
d. Consider that transmission as not sent.

373. Which of the following messages shall a station in control of distress use to improve silence?

a. All stations in this frequency, MAYDAY traffic
b. Stop transmitting, MAYDAY
c. Stop transmitting, EMERGENCY
d. Stop transmitting, DISTRESS

374. The distress communication and silence conditions shall be terminated by transmitting a message. Which words shall this message include?

a. Emergency communication finished
b. Distress traffic ended
c. Disregard distress communication, OUT
d. MAYDAY traffic ended

375. Which word or phrase shall be used if you want to say: "Communication is difficult. Please send every word or group of word twice"?

a. Words twice
b. Message second time
c. Say again, say again
d. Repeat twice

376. When an air craft is no longer in distress, it shall transmit a message cancelling the distress condition. Which words shall this message include?

a. .... MAYDAY, resuming normal operations
b. .... cancel distress

c. .... distress condition terminated
d. .... MAYDAY cancelled

377. The urgency message to be sent by an aircraft reporting an urgency condition shall contain at least the following elements/details

a. Aircraft identification, aerodrome of departure, level and heading
b. Aircraft call sign, nature of urgency condition, pilot's intention, present position, level and heading
c. Aircraft call sign, destination airport, ETA at destination, route of flight
d. Name of station addressed, present position, assistance required

378. Which of the following statements is correct?

a. ATC clearance have the same priority as urgency communications
b. The urgency communications have priority over all other communications
c. There is no difference regarding priority between distress communications and urgency communications.
d. The urgency communications have priority over all other communications, except distress.

379. To indicate that he is no longer occupying the active runway a pilot shall report to the controller:

a. Runway cleared.
b. Runway vacated.
c. Clear of runway.
d. Runway free.

380. During radar vectoring, the controller asks the pilot XY-ABC to turn on heading 360 degree. The correct read back of this instruction is:

a. Heading three six zero, X-BC.
b. Heading north, X-BC.
c. Heading three hundred sixty, X-BC
d. A read back in not necessary as XY-ABC has been identified

381. What does the International Air Transport Agreement provide for ?

a. Free and unhindered transit of aeroplanes over the high seas.
b. The freedom for aeroplanes to over fly the territory of any other state without landing.
c. The freedom for aeroplanes of one state to land in the territory of another for the purpose of refueling.
d. The freedom for aeroplanes registered in one state to land in another state and put down passengers and cargo.

382. What is each contracting state of ICAO required to provide :

a. Facilities for SAR operations to be undertaken in its airspace.
b. Oceanic control facilities in oceanic areas adjacent to territorial airspace.
c. Modern radio navigation facilities for aeroplanes transiting its airspace.
d. Details of Aerodrome Operating Minima to each operator using its airspace.

383. What does the acronym PANS-OPS mean :

a. Distress traffic operations.
b. Procedures for Air Navigation Services - Operations.
c. Procedures for Air Navigation, Operations of aircraft.
d. Procedures Air Navigation and Sector Operations.

384. The International Air Services Transit Agreement embodies the 'technical freedom'. Which of the following is a technical freedom :

a. The freedom to over-fly a contracting state.
b. The freedom to land at any aerodrome in a contracting state to drop of passengers.
c. The freedom to land in a contracting state and re-fuel and unload cargo.
d. The freedom to land in a contracting state for traffic purpose.

385. What is the basis of the International Air Service Transit and Transport Agreements ?

a. International Law.
b. Multilateral International Agreements.
c. ICAO Standards and Recommended Practices.
d. Bilateral agreements between states.

386. Which of the following is one of the objectives of the International Civil Aviation Organisation (ICAO) ?

a. To establish the United Nation Aviation Authority.
b. To take over the responsibility for aviation regulation on the world.
c. To ensure common high levels of aviation safety in contracting states .
d. To ensure through national legislation are exactly the same.

387. What is the status of IATA ?

a. It is a trade association of aviation operators and others involved with international aviation.
b. It is an associate body of ICAO.
c. It represents the air transport operators at ICAO.
d. It is the international legislative arm of ICAO.

388. What is the basic requirement for appointment as Commander in commercial air transportation?

a. A minimum of 1500 hours on type.
b. Performance of duty to the satisfaction on the operator.
c. A minimum of two years flying for the operator and 1500 hours on type.
d. A professional pilot's licence.

389. If a Vietnamese operator (Vietnam Airlines) provides an aeroplane and complete crew for lease to another Vietnamese operator (Pacific Airlines) (a wet lease-out situation), who is the operator of the aeroplane ?

a. Vietnam Airlines – providing the functions and responsibilities of VAR-OPS1 are retained.

b. Pacific Airlines – providing they absolve Vietnam Airlines of any responsibility in the manner in which the aeroplane is operated.
c. Vietnam Airlines – because it is their crew flying the aeroplane.
d. Pacific Airlines – because they are charging the passengers for carriage.

390. If you pass a skill test for type rating on A320-200, are you permitted to fly any other type of aeroplane ?

a. Yes, you can fly on as many types as your operator requires.
b. Yes, but it must not have more than 2 engines.
c. No, the authority only permits one type rating to be held at any time.
d. Yes, but you may fly other variants of type of A320-200 specified in VAR-FCL1.

391. Once you have achieved 1500 hours as pilot of an aeroplane, your licence is upgraded to ATPL (A). Which of the following is a privilege of that licence ?

a. To fly as Commander in all type rated aircraft in commercial air transport.
b. To fly as co-pilot in any aircraft for commercial air transport.
c. To fly any type rated aircraft in commercial air transport.
d. To pilot a balloon.

392. If you have the right of way, you are still responsible for avoiding collisions. Is this true or false ? With the right of way what else must you do ?

a. True. Maintain track, speed and altitude.
b. False. You must not do anything to confuse the other aeroplane.
c. True. Maintain speed and heading and not fly over or under the other aeroplane unless you are well clear and only then with a good look out.
d. False. Observe the other aircraft and if he doesn't alter course then you must take avoiding action.

393. If an aircraft is being unlawfully interfered with, what should the pilot attempt to do ?

a. Pretend that nothing has happened and just do as the hi-jacker wants.
b. Squawk 7700 and let ATC sort it out.
c. Impress upon the hi-jacker that for the safety of all on board you must continue to communicate with ATC and comply with the rules of the air.
d. Make false position reports so that ATC get the message that something is wrong.

394. You are taxiing towards a marshaller and he put out his arms horizontally with palms face down, and then he moves his arms up and down several time. What is he indicating ?

a. This is where I want you to stop.
b. Slow down
c. You are clear to start shutting down engines.
d. Keep coming forward.

395. What is the relevance of the OCH for a non-precision approach visual (circling) manoeuvre ?

a. It is the height at which visual reference must be obtained.
b. It is the height at which a missed approach must be initiated.

c. It is the lowest height to which the aircraft can descend and not infringe the obstacle clearance criteria.
d. It is 250ft above the height of the highest obstacle in the approach path.

396. If the aeroplane has a Flight Management System fitted and it is decided to use it during precision approach, what must also be done ?

a. The procedure must be monitored on the basic display normally associated with the procedure.
b. The DH must be increased by a factor specified by the operator.
c. The RVR is reported at all times.
d. The missed approach procedure must be initiated if the FMS fails.

397. If you are flying outside an aerodrome traffic zone, what are you required to set on your altimeter sub scale ?

a. Regional QFF.
b. The lowest forecast pressure setting with respect to MSL for the area in which you are flying.
c. The local QNH obtained from FIS or the nearest aerodrome.
d. The QFE for the highest aerodrome in the vicinity.

398. With respect to a standard instrument departure (SID), a straight departure is one in which the departure track is within a certain angle of alignment to the runway. What is this angle ?

a. 5 deg
b. 10 deg
c. 15 deg
d. 20 deg

399. What is the extent of the Normal Operating Zone (NOZ) for parallel runways operation?

a. From the runway threshold to the point where aircraft are established on the extended centre line of the ILS approach.
b. From the missed approach point to the point where aircraft are established on the glide path.
c. From the touchdown point to the point where aircraft are established on the centre line.
d. From the final approach fix to the intermediate approach fix.

400. If you are flying over state A but close to the border of state B and are intercepted by air defence aircraft of state A, what should you do ?

a. Communicate with ATC and ask the controller to liase with the Air Defence Unit.
b. Ignore the signal from the fighters and squawk 7600.
c. Squawk 7700 and try to evade the fighters.
d. Try calling the fighters on the distress frequency stating that you are a controlled flight under instructions of the ATCU and cannot comply with the interceptor requirements.

Station	Mass (kg)	Arm (cm)	Moment (kgcm)
Basic Empty Condition	12045	+ 30	+ 361350
Crew	145	- 160	- 23200
Freight 1	5455	+ 200	+ 1091000
Freight 2	410	- 40	- 16400
Fuel	6045	- 8	- 48360
Oil	124	+ 40	+ 4960

Table 9

Station	Mass (kg)	Arm (cm)	Moment (kgcm)
Basic Empty Condition	12045	+ 30	+ 361350
Crew	145	- 160	- 23200
Freight 1	5455	+ 200	+ 1091000
Freight 2	410	- 40	- 16400
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Table 10

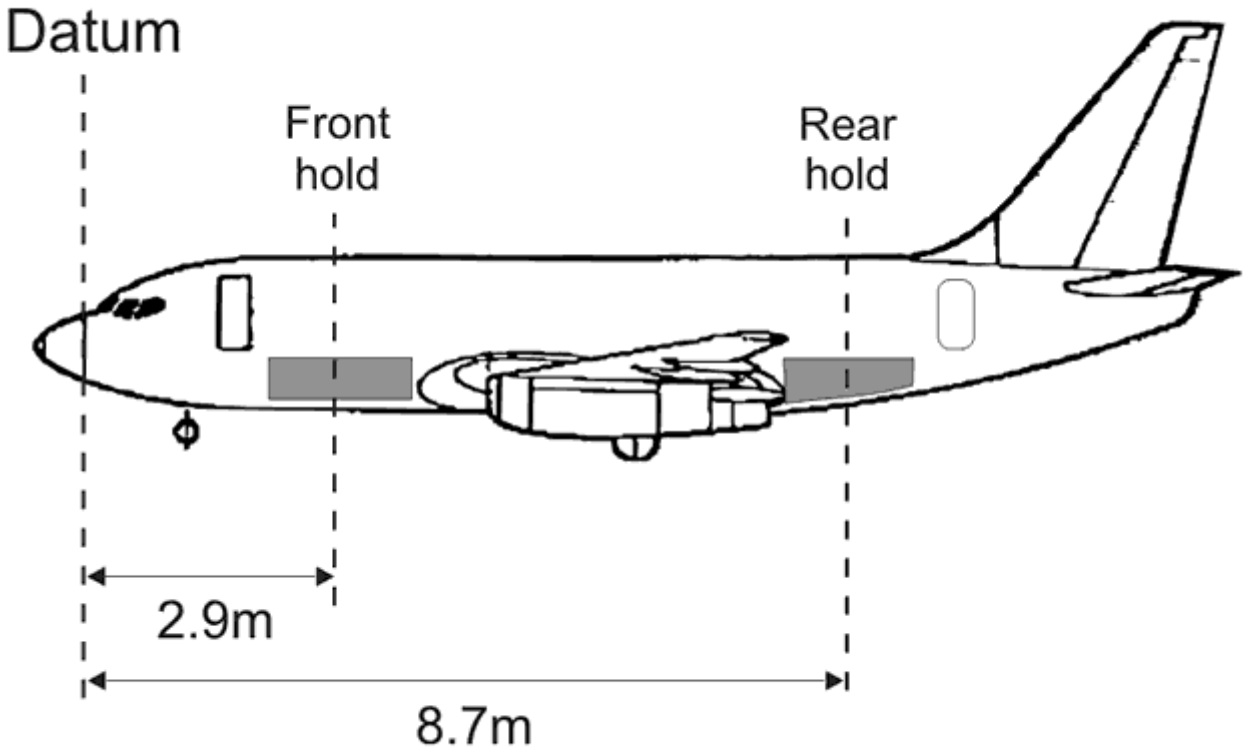


Figure 12

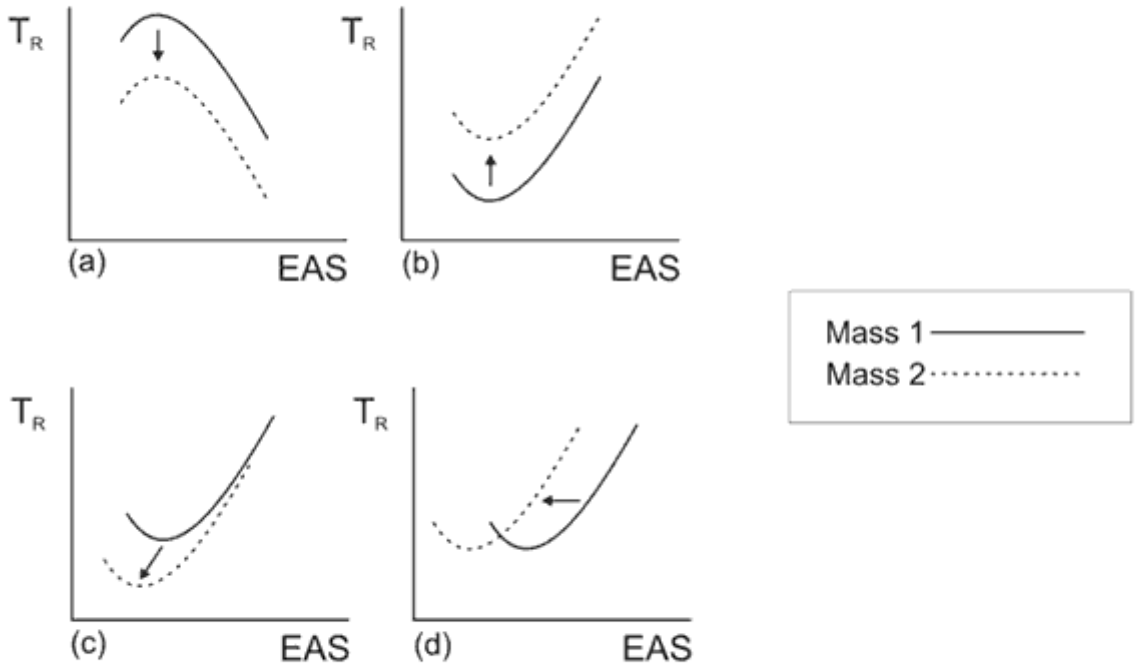
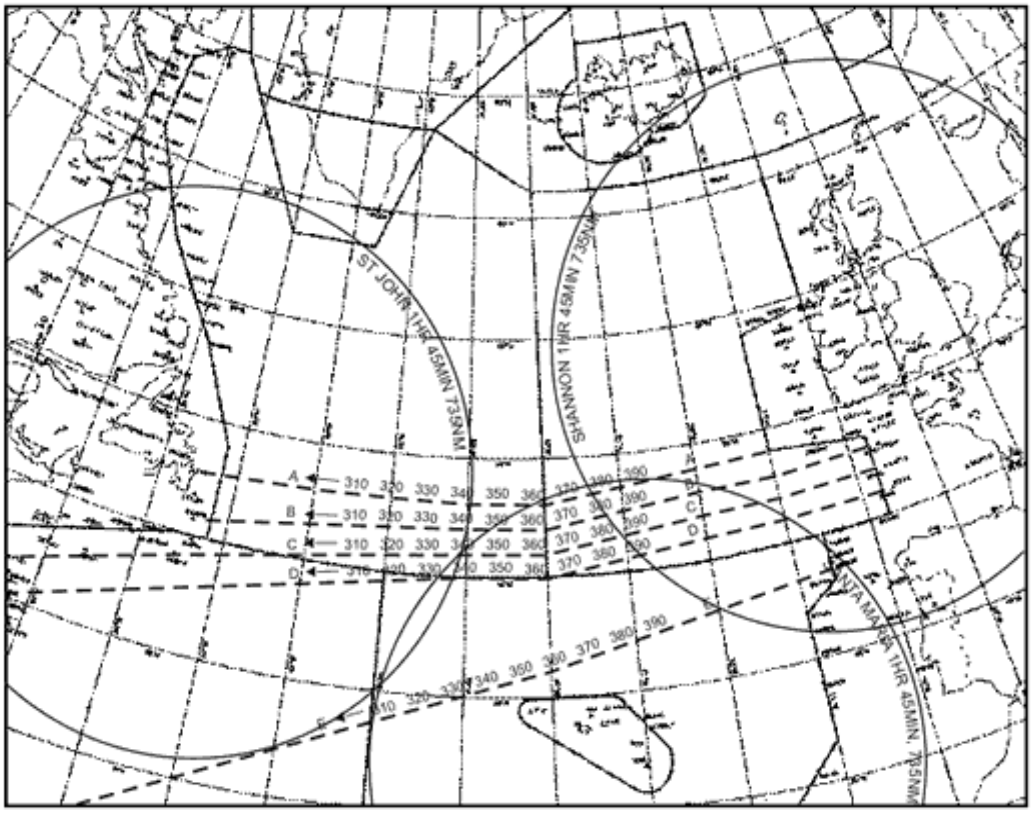


Figure 17



PARIS TO WASHINGTON VIA NAT A 8 HRS 3 MIN
NAT B 8 HRS 10 MIN
NAT C 8 HRS 15 MIN
NAT D 8 HRS 20 MIN

Figure 9 - OPS