INSTRUCTION TO CANDIDATES

1. Attempt ALL Questions in Section
1. On board a non-pressured aircraft, the crew and the passengers must be fed with oxygen throughout the flight period during which the pressure altitude is greater than:
   a. 12,000ft
   b. 13,000ft
   c. 10,000ft
   d. 11,000ft

2. On board a pressurised aircraft, a flight shall be undertaken only if the aircraft is provided with an oxygen reserve enabling all crew members and part of the passengers to be supplied with oxygen in the event of a cabin depressurisation, throughout the flight period, during which the pressure altitude is greater than:
   a. 13,000ft
   b. 12,000ft
   c. 10,000ft
   d. 11,000ft

3. An aircraft whose maximum approved passenger seating configuration is 7 to 30 seats must be equipped with at least:
   a. 2 hand fire extinguishers located in the passenger compartment
   b. 1 hand fire extinguisher located in the passenger compartment
   c. 3 hand fire extinguishers located in the passenger compartment
   d. 4 hand fire extinguishers located in the passenger compartment

4. A public transport passengers aeroplane, with a seating configuration of more than 61 seats, must have in its passenger compartment(s), at least 3 hand fire extinguishers including:
   a. No halon fire extinguisher is required
   b. 4 halon fire extinguishers or equivalent
   c. 1 halon fire extinguisher or equivalent
   d. 2 halon fire extinguishers or equivalent

5. In the event that there is communication failure in an MNPS (minimum navigation performance specification) airspace, the pilot must:
   a. Join one of the so called “special” routes
   b. Return to the flight plan route if it is different from the last oceanic clearance received and acknowledged
   c. Continue the flight in compliance with the last oceanic clearance received and acknowledged
   d. Change the flight level in accordance with predetermined instruction.

6. What is the requirement regarding the carriage of CVR for aircraft registered before April 1998?
   a. Record last 48 hours of flight
   b. Record last 30 minutes of flight
   c. Record for the duration of flight
   d. Record last 25 hours of operation
7. As of March 2000, the construction of the flight deck door connecting to passenger compartment is to be:
   a. Bombproof
   b. Impenetrable by gunfire
   c. Designed to minimize penetration by grenade shrapnel
   d. Lockable

8. A flight data recorder is required in aeroplanes over:
   a. 10,000kgs
   b. 7000kgs
   c. 5,700kgs
   d. 136,000kgs

9. To act as co-pilot for take-off or landing, the pilot must have:
   a.
   b.
   c.
   d. Acted as PIC or co-pilot on type in the last 90 days
   e. Acted as PIC or co-pilot on type in the last 30 days
   f. Acted as PIC or co-pilot on type in the last 60 days
   g. Been at the controls for landing in the same type recently

10. Where is the minimum equipment list?
    a. Appended to the airplane flight manual
    b. In the operations manual
    c. In the maintenance documents
    d. In the journey log

11. What is the co-pilot currency requirement?
    a. 3 flights in the last 90 days
    b. 3 take-offs and landings in the last 60 days
    c. At the controls for 3 flights in the last 60 days
    d. At the controls 3 take-offs and landings in the last 90 days

12. Who issues and updates the MEL?
    a. The authority
    b. Operator
    c. Manufacturer
    d. The designer

13. What are class 7 dangerous goods?
    a. Oxidizers & Organic peroxide
    b. Radioactive materials
    c. Toxic and infectious substances
    d. Flammable solids

14. I.C.A.O. (International Civil Aviation Organization) annex 18 is a documents with the:
    a. Safety of the air transport of hazardous materials
b. Technical operational use of aircraft
c. Rules of the air
d. Noise pollution

15. Following an act of unlawful interference on board an aeroplane, the commander should submit a report to:

a. The local authority
b. The authority of the state of the operator
c. Both the local authority and the authority of the state of the operator
d. The authority of the state within which the aircraft is operating at the time of the unlawful interference

16. A class B fire is a fire of:

a. Solid materials usually of organic nature
b. Liquid or liquefiable solid
c. Metal, gas or chemical product
d. An electrical nature

17. When are passengers briefed on the use of oxygen for a flight that is planned to operate at FL330.

a. Before 33,000ft
b. Before 10,000ft
c. Before take off
d. Before 13,000ft

18. Which one of the following sets of conditions is mostly likely to attract birds to an aerodrome?

a. Modern and closed sewage treatment enter in close proximity
b. Opened refuse hip in close vicinity
c. Maintaining the grass on the airfield
d. Extraction of minerals such as sand and gravel

19. During an explosive decompression at flight level 340 (FL340), your first action will be:

a. To set the transponder to 7700
b. To comfort your passengers
c. To warn the ATC
d. To put on the oxygen mask

20. For a given aeroplane, the wake turbulence increases when the aeroplane has a:

a. High mass and high airspeed
b. Low mass and high airspeed
c. Low mass and low airspeed
d. High mass and low airspeed

21. The dangerous goods transport documents, if required, shall be drawn up by:

a. The operator
b. The handling agent
c. The captain
d. The shipper
22. Who shall be satisfied, before flight, that the aircraft's weight is such that flight can be safely made, and that any transported cargo is properly distributed and secured?
   a. The operator
   b. The flight engineer
   c. The airline's dispatcher
   d. The commander

23. Flight data recorders must keep the data and parameters recorded during at least the last:
   a. 30 hours of operation
   b. 48 hours of operations
   c. 25 hours of operation
   d. Flight

24. The public address system must be audible and intelligible at:
   i. All passenger seats
   ii. Toilets
   iii. Cabin crew seats
   iv. Work stations

   The combination re-grouping all correct-statement is:
   a. 1-2
   b. 1-2-3
   c. 1-2-3-4
   d. 1

25. The MNPS (minimum navigation performance specification) airspace extends vertically between flight levels.
   a. 280 & 390
   b. 275 & 400
   c. 280 & 400
   d. 285 & 420

26. Why are operators required to establish a quality control system?
   a. To give the travelling public reassurance that operation is properly regulated
   b. To ensure safe operational practices and airworthy aircrafts
   c. To ensure that regulations concerning engineering maintenance are complied with.
   d. None of the above

27. Which of the following does a quality system require?
   a. A Quality manager
   b. Operations manual
   c. Non conformance monitoring
   d. Aircraft flight manual and check list

28. With regards to training, what are operators required to ensure?
   a. Maintenance personnel are properly trained
   b. Pilots are properly trained
   c. Cabin crew are properly trained
   d. Flight engineer are properly trained
29. An air operator’s certificate (AOC) is required by any operator operating aeroplanes for which of the following purposes?
   a. Public transport where more than 21 passengers are carried
   b. Commercial air transport
   c. Public transport of fare paying passengers
   d. Carriage of passengers and cargo for hire and reward with aeroplanes of max take off mass greater than 5700kg

30. An applicant for an AOC must permit the authority to examine which of the following?
   a. All safety aspect of the operations
   b. The administration, financial stability and maintenance schedules of the operations
   c. Any previous records of running air transport operation
   d. Medical records of all employees of the company involved directly with the operation of aeroplanes

31. Any operator is required to grant the authority access to the organization and aircrafts. What is the purpose of this?
   a. To ensure that the taxable revenue of operation is correctly disclosed
   b. To ensure compliance with ops regulations
   c. To ensure the restriction of the AOC are being complied with.
   d. To ensure that no unfair trading practices are being used against competitors

32. An AOC may be revoked, suspended or varied if the authority deems it necessary. On what grounds can this action be taken?
   a. If the profitability, financial stability of the operation gives cause for concern
   b. If the operations is unable to comply with the safety requirements
   c. If the quality system is not approved
   d. If the operator is found guilty of unfair trading practices

33. The term of an AOC require the operator to maintain an organization capable of:
   a. Exercising operational and administration control
   b. Exercising financial and administrative control
   c. Exercising operational control and supervision
   d. Exercising operational control and quality control

34. What must the commander ensure that all those on the flight deck are similar with?
   a. Safety procedures
   b. Contents of the operations manual
   c. Check lists
   d. Standard operating procedures

35. Which combination of the following list of documents correctly identifies those that must be carried on each flight?
   1. Certificate of registration (C of R)
   2. Certificate of Airworthiness (C of A)
3 Noise certificate
4 Air Operators Certificate (AOC)
5 Aircraft radio license
6 Third party liability insurance certificates
7 Crew licenses with appropriate ratings

a. 1, 2, 5 and 7
b. 1, 2 and 7
c. 2, 5 and 7
d. All of them

36. Which of the following forms or information are NOT required to be carried on all flight?
   1 The Operational Flight Plan (OFP)
   2 Mass and balance Documentation
   3 NOTAMS
   4 The Technical Log
   5 Maps and Charts
   6 Passenger and cargo manifests

   a. All except 1
   b. All except 3
   c. All except 6
   d. All except 4

37. Certain documents are to be retained by the operator on the ground. If it is not possible to leave
    the documents in safe custody such that in the event of their being required in the course of an
    accident investigation or for any reason given by the authority, they may be:
    a. Be kept in the personal possession of the Commander
    b. Carried on the aeroplane and stored in a document case in the cargo/luggage bay
    c. Carried on the aeroplane providing they are stowed in a fire proof container
    d. Posted by registered mail to the Operator, or taken by bonded courier

38. Certain documents relating to the operation of aeroplanes are required by law to be kept for a
    specified period of time. If an operator ceases to operate an aeroplane must he keep the
    documents?
    a. No, they can be disposed of with the aeroplane
    b. Yes, but only until the aeroplane is re-registered
    c. Yes, but only for the specified period
    d. Yes, until the aeroplane is finally dismantled or destroyed

39. What is a dry lease?
    a. Where the person leasing the aeroplane is responsible............fuel etc
    b. Where the aeroplane is operated under the AOC of the person to whom it is leased
    c. Where the aeroplane is operated under the AOC of the person from who it is leased
    d. Where the leased aeroplane comes complete with flight crew.
40. Where an aeroplane is Dry Leased Out to a non-JAA operator who is an operator who is an operator certified by an ICAO contracting State, responsibility has to be assumed for the maintenance of the aeroplane. Who is responsible for assuming the responsibility?
   a. The operator who is to operate the aeroplane
   b. A JAR-145 approved maintenance operation
   c. The Authority of the State of the Operator who is receiving the aeroplane
   d. ICAO

41. Each crew member shall be properly secured by all safety belts and harness provided
   i. During taxying
   ii. During take off
   iii. During landing
   iv. During other phrases of flight while at other stations
   v. Whenever deemed necessary by the commander in the interest of safety

The combination regrouping all the correct statements is:
   a. i, ii, iii, iv, v
   b. i, iii, iv
   c. i, ii, iii, iv
   d. ii, iii, iv

42. In the KCARs, a runway is referred to as contaminated when more than 25% of the required runway surface is covered with the one of the following element:

1) A water film sufficiently thick to give a shiny appearance to the runway
2) A water film or loose or slushy snow equivalent to more than 3mm of water
3) Ice, including wet ice
4) Grass, moist
5) Compacted snow (a solid mass which may not be compacted further)

The combination regrouping all the correct statement is:
   a. 2, 3, 4
   b. 1, 2, 3, 4, 5
   c. 1, 3, 4
   d. 1, 3, 4, 5

43. Who shall be satisfied, before flight, that the aircraft’s weight is such that flight can be safely made, and that any transported cargo is properly distributed and secured?
   a. The operator
   b. The commander
   c. The airline dispatcher
   d. The flight engineer
44. When refueling is being performed while the passengers are boarding or disembarking the aircraft, one of the requirements is:
   a. Refueling is prohibited while passengers are boarding and/or disembarking
   b. All flight crew shall remain at their stations
   c. The ground area beneath the exits intended for emergency evacuation and slide deployment areas must be kept clear
   d. The aircraft’s stairs be completely extended

45. For a twin engine aircraft, non ETOPS, when the weather conditions require a take off alternate to be selected, it shall be located, in still air conditions within:
   a. 1 hour of flight at cruising speed
   b. 1 hour of flight time at a single engine cruising speed
   c. 2 hours of flight time at cruising speed
   d. 2 hours of flight time at single engine cruising speed

46. On arriving overhead an isolated aerodrome, the commander of a turbo jet engine aircraft should have a minimum quantity of fuel (additional reserve including the final reserve) sufficient for flying during:
   a. 30 minutes at holding flight speed at 1500ft
   b. 2 hours at holding flight speed at 1500ft
   c. 30 minutes with normal cruising consumption
   d. 2 hours with normal at flight speed at 1500ft

47. The minimum height to fly above a proclaimed game reserve is:
   a. 1500ft
   b. 2000ft
   c. 1550ft
   d. 2500ft

48. A public transport aircraft is intended to be operated at FL380, the total number of oxygen masks (dispensing units and outlets) in the cabin must be at least the same as the total number of:
   a. Seats
   b. Passengers
   c. Seat exceeding by 5%
   d. Passenger exceeding by 10%

49. After a landing, with over weight and over speeding condition, the tyres and brakes are extremely hot, the firemen should approach the landing gear tyres:
   a. From any side
   b. Only from left or right side
   c. Under no circumstances should they approach the aircraft
   d. Only from front or rear

50. A 1211 halon fire extinguisher can be used for:
   1) A paper fire
   2) A fabric fire
3) An electric fire
4) A wood fire
5) Hydrocarbon fire

The combination regrouping all the correct statements is:
   a. 1,2,3,4,5,
   b. 1,3,5
   c. 2,4,5
   d. 2,3,4

**PART2**

1. List down the 9(nine) classes of dangerous goods in their correct order. (9mks)

2. Calculate the hydroplaning speed for an aircraft with tyre pressure of 8 bars (4mks)

3. What is the purpose of the break in making on an aircraft fuselage (2mks)

4. Define the following terms:
   a. Operator
   b. Take off alternate
   c. Adequate aerodrome
   d. Etops(extended range twin engine operations)
   e. Aerodrome (5mks)