



EAST AFRICAN SCHOOL OF AVIATION
EXAMINATION
SAFETY SECTION

DIPLOMA IN FLIGHT DISPATCH

FLD 39

FINAL EXAMINATION

SUBJECT: OPERATION PROCEDURES

Duration: 02 Hrs: 30 Min

DAY/DATE:

TIME: 1400HRS – 1600HRS

INSTRUCTIONS TO CANDIDATES

1. Answer ALL the questions.

SECTION A

1. Where a light category aeroplane is landing behind a heavy category aeroplane, the minimum separation distance in NM is:
 - A. 3
 - B. 4
 - C. 5
 - D. 6
2. ICAO categorizes aeroplanes with a max gross take off mass of 128 000kg as:
 - A. Upper medium.
 - B. Medium.
 - C. Heavy.
 - D. Cat D.
3. What must be ensured with respect to navigation equipment?
 - A. The failure of one piece does not affect another.
 - B. All navigation equipment must be serviceable at the start of flight.
 - C. All equipment must conform to ICAO specifications.

- D. If one piece of equipment fails, there must be a spare available.
4. Wake vortex turbulence is caused by:
- A. The shape of the wing.
 - B. Differential speed of movement of air across the wing section.
 - C. The interaction of the engine efflux/prop wash and the 'dirty' air from the wing.
 - D. The disruption of airflow over a wing section when lift conditions exist.
5. The maximum validity of a SNOWTAM is:
- A. 3 hours
 - B. 24 hours
 - C. 12 hours
 - D. 6 hours
6. The tip vortices circulate about each wing tip:
- A. clockwise.
 - B. counter-clockwise.
 - C. from the upper side of the wing toward the underwing.
 - D. from the underwing toward the upper side of the wing.
7. The strongest vortices are generated by:
- A. Heavy aeroplanes, travelling fast, in a 'clean' configuration.
 - B. Heavy aeroplanes, travelling fast, in a 'dirty' configuration.
 - C. Heavy aeroplanes, travelling slow, in a 'clean' configuration.
 - D. Heavy aeroplanes, travelling slow, in a 'dirty' configuration.
8. The wake turbulence:
- A. starts when pulling out the drag devices and stops when retracting the drag devices.
 - B. starts during the rotation and stops as soon as the airplane's wheels touch the ground.
 - C. starts as soon as the aeroplane is running for take-off and stops as soon as it has come to a stop at landing.
 - D. starts when the airplane reaches a height of 300 ft above the ground and stops when it crosses this height before landing.
9. The validity period of a flight track system organized in MNPS airspace during a Westbound flight normally is :
- A. 01H00 UTC to 08H00 UTC
 - B. 10H30 UTC to 19H00 UTC
 - C. 11H30 UTC to 19H00 UTC
 - D. 00H00 UTC to 08H00 UTC
10. Following take-off, the noise abatement climb procedures specified by the operator is:
- A. different according to airports and airplane types.
 - B. for the same airplane type, the same for all airports.
 - C. for all airplane types, the same for a specific airport.
 - D. different for a same airplane type, according to airports.
11. The abbreviation MNPS means:
- A. Main Navigation Performance Specification
 - B. Minimum Navigation Performance Specification
 - C. Maximum Navigation Performance Specification

- D. Magnetic Navigation Performance Specification
12. In the event of communication failure in an MNPS airspace, the pilot must:
- A. return to his flight plan route if it is different from the last oceanic clearance received and acknowledge by him.
 - B. join one of the so-called "special" routes.
 - C. continue his flight compliance with the last oceanic clearance received and acknowledge by him.
 - D. change the flight level in accordance with the predetermined instruction
13. For the purpose of wake turbulence separation, what is the minimum separation time that is permitted when a medium aircraft is taking off behind a heavy aircraft from an intermediate part of the same runway?
- A. 3 minutes
 - B. 4 minutes
 - C. 5 minutes
 - D. 2 minutes
14. The correct statement about extinguishing agents on board aeroplanes is:
- A. Water may only be used for minor fires.
 - B. A powder extinguisher is suitable for extinguishing a cockpit fire.
 - C. Halon is an effective extinguishing agent for use in aeroplanes.
 - D. Burning cargo in a cargo-aeroplane is usually extinguished by using carbon dioxide.
15. Which parameter will change first, when penetrating an horizontal windshear?
- A. Indicated airspeed.
 - B. Pitch angle.
 - C. Vertical speed.
 - D. Groundspeed.
16. During an explosive decompression at flight level 370 (FL 370), your first action will be:
- A. to set the transponder to 7700
 - B. to warn the ATC
 - C. to comfort your passengers
 - D. to put on the oxygen mask
17. The highest risk of bird strikes occurs:
- A. under 500 m
 - B. above 1 000 m
 - C. between 500 and 1 000 m
 - D. between 500 and 1 500 m
18. While approaching the outer marker, the tower informs you about the presence of a "microburst". You will expect to encounter:
- A. wake turbulence.
 - B. supercooled water.
 - C. windshears (vertical and horizontal).
 - D. convection motion of air mass.
19. If obliged to jettison part of the fuel in flight, it would be better to do so:
- A. in a straight line and at a relatively high flight level.

- B. in a holding stack, after control clearance.
 - C. under flight level 50 (FL50).
 - D. during final phase of approach.
20. In the event of a cabin depressurization, the actions of the pilot will be to:
- A. Immediately commence a diversion to a suitable alternate.
 - B. Increase engine power to provide additional airflow to the pressurisation systems
 - C. Maintain the aeroplane attitude to prevent further damage to the airframe by over loading of the structure.
 - D. Commence a descent to an altitude where the supplemental oxygen supply is sufficient for all crew and passengers.
21. The initial actions to be taken in the event of an engine fire depend upon:
- A. The type of engine.
 - B. Whether the aeroplane is in the air or on the ground.
 - C. How many passengers are on board?
 - D. The availability of Crash/Fire crews.
22. What equipment is required to be carried to combat the effects of smoke in the flight deck area?
- A. Fire extinguishers.
 - B. A drop out oxygen system.
 - C. Smoke hoods with emergency 100% oxygen supply.
 - D. Battery operated torches.
23. What colour is a Halon 1211 – BCF fire extinguisher?
- A. Red.
 - B. Green.
 - C. Black.
 - D. Blue.
24. On what type of fire in an aeroplane can you use a CO2 extinguisher?
- A. Any fire on the flight deck.
 - B. Only electrical fires on the flight deck.
 - C. Brake fires.
 - D. Electrical fires (but not on the flight deck).
25. A crash axe and/or crowbar is/are required to be carried on the flight deck of aeroplanes:
- A. In the public transport (passenger) role.
 - B. With a max take-off mass exceeding 5700Kg and 10 or more passenger seats.
 - C. With a max take-off mass of 5700Kg and 9 passenger seats.
 - D. That are carrying more than 200 passengers.
26. During a rapid or explosive decompression, passengers may notice:
- A. Gross discomfort, breathlessness, possible damage to sinus cavities.
 - B. Tunnel vision and sensorial depletion.
 - C. Marked reduction in night vision.
 - D. Pain in muscles and joints caused by the bends.

27. It is recommended that first aid kits should be positioned:
- Out of sight to prevent panic.
 - In the galley area accessible to cabin staff only.
 - Under passenger seats.
 - Near exits.
28. From the following list:
- Fuel jettisoning system and its operation are free from fire hazard
 - The fuel discharges clear of any part of the aeroplane
 - Fuel fumes do not enter any part of the aeroplane
 - The jettisoning operation does not adversely affect the controllability of the aeroplane.
- Which of the above are requirements that must be shown to exist during fuel jettisoning tests:
- 1,3 and 4
 - 1 and 4
 - 2 and 3
 - 1,2,3 and 4
29. Who is responsible for approving methods of calculating minimum flight altitudes?
- The Operator.
 - The State of the Operator.
 - The CAA.
 - The ICAO Council.
30. A category I precision approach (CAT I) has:
- a decision height equal to at least 200 ft.
 - a decision height equal to at least 100 ft.
 - a decision height equal to at least 50 ft.
 - no decision height
31. The risk of dynamic hydroplaning depends primarily on the:
- depth of the standing water on the runway.
 - aircraft's weight
 - Runway Length
 - Number of Passengers
32. An operator must ensure that for the duration of each flight, be kept on the ground, if required:
- a copy of the calculated take-off performances.
 - the calculation of the airborne fuel quantity.
 - the aircraft equipment report (logbook).
 - a copy of the weight and balance sheet.
33. An aircraft is equipped with an in-flight fuel jettisoning system in order to reduce the aircraft weight in an emergency:
- to continue with the flight to its planned destination.
 - to cope with the wing and landing gear constraints at landing touchdown
 - to reach the maximum structural landing weight in less than 15 minutes after activation of the jettisoning system
 - to reduce the landing distance to 60% of the effective runway length
34. For an operation in MNPS airspace aircraft operating in oceanic and remote areas requires to be equipped with:

- A. One Inertial Navigation System (INS).
 - B. Two Inertial Navigation Systems (INS).
 - C. Two independent Long-Range Navigation Systems (LRNS).
 - D. One Long Range Navigation System (LNRS).
35. The MNPS (Minimum Navigation Performance Specification) airspace extends vertically between flight levels:
- A. 280 and 400.
 - B. 280 and 390.
 - C. 275 and 400.
 - D. 285 and 420.
36. On overwater flights, an operator shall not operate an aeroplane at a distance away from land, which is suitable for making a emergency landing greater than that corresponding to :
- A. 400 NM or 120 minutes at cruising speed.
 - B. 300 NM or 90 minutes at cruising speed.
 - C. 200 NM or 45 minutes at cruising speed.
 - D. 100 NM or 30 minutes at cruising speed.
37. Information concerning evacuation procedures can be found in the :
- A. operational flight plan.
 - B. operation manual.
 - C. flight manual.
 - D. journey logbook.
38. The file kept by an employer on its flight crews' records:
- 1 - the training
 - 2 - the test results
 - 3 - a log of flying hours
 - 4 - a summary of the training by reference period
- Which of the following combinations contains all of the correct answers?
 - A. 2 - 3
 - B. 3 - 4
 - C. 1 - 2 - 3 - 4
 - D. 1 - 2 - 3
39. Aircraft using a VFR flight plan in controlled airspace shall be equipped: (Annex 6, Part I)
- A. Only as is necessary for aircraft that make VFR flights.
 - B. With more anti-icing and/or de-icing devices (if one expects icy conditions).
 - C. As is necessary for aircraft that make VFR flights, and such aircraft must also possess indicators of attitude and course, along with a precise barometric altimeter.
 - D. As is necessary for aircraft that operate in accordance with instrument flight rules.
40. Who has the responsibility for establishing operating procedures for noise abatement purposes during instrument flight in compliance with KCARS is the :
- A. state in which the aeroplane is operating
 - B. commander
 - C. operator
 - D. state of the operator

41. If after anti-icing has been completed a pre-departure inspection reveals evidence of freezing, the correct action is to:
- carry out a further de-icing process
 - complete departure as soon as possible to reduce the possibility of further freezing
 - switch on all the aeroplane anti-icing and de-icing systems and leave on until clear of icing conditions when airborne
 - complete departure provided that the recommended anti-icing holdover (protection) time for the prevailing conditions and type of fluid used has not been exceeded
42. A category I precision approach (CAT I) is an approach which may be carried out with a runway visual range of at least:
- 500 m
 - 550 m
 - 350 m
 - 800 m
43. Once the fuel jettison is complete:
- It is essential that the fuel remaining is balanced in the tanks and a revised endurance calculated.
 - ATC is to be informed that jettison is complete.
 - The NO SMOKING light is to be extinguished.
 - Normal food distribution service is to recommence.
44. On board a pressurized 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 cabin depressurization, throughout the flight period, during which the pressure altitude is greater than:
- 11,000ft.
 - 10,000ft.
 - 12,000ft.
 - 13,000ft.
45. A dry runway is one which:
- Can be wet if it has sufficient camber to allow the water to drain quickly off the surface therefore maintaining an 'effective dry' braking action.
 - Is wet but not to a depth of water greater than 3mm.
 - Is not contaminated.
 - Can be wet if it has specially prepared grooved or porous surfaces, which maintain 'effectively dry' braking action.
46. FDRs must keep data and parameters for at least the last:
- 30 hours of operation.
 - 48 hours of operation.
 - 25 hours of operation.
 - The whole flight.
47. What is the minimum RVR for a CAT IIIc approach?
- No minimum.
 - 50m.
 - 75m.
 - 100m.
48. The Cat I minimum decision height is:
- No decision height.
 - 50 feet.
 - 100 feet.

- D. 200 feet.
49. Apart from aquaplaning and reduced braking efficiency, what other hazards are associated with heavy rain contamination of runways:
- Wet aeroplanes do not perform as well as dry ones.
 - The efficiency of jet engines is reduced by the ingress of water diluting the fuel.
 - The refraction of light from landing lights causes visual impairment.
 - Water ingress into engines can cause flame-out.
50. Braking action on contaminated runways is given by:
- A simple code (1 – 5) or a description (excellent - bad).
 - A simple code (0.25 – 0.4) or a description (good – bad).
 - A simple code (1 – 5), a description (good – poor) or the measured co-efficient of braking effect (<0.25 - >0.40).
 - The co-efficient of braking action related to a simple code where 1 is poor and 5 is good, supplemented by a description of the braking effect and an aquaplaning warning.
51. Following an explosive decompression, the maximum altitude without oxygen at which flying efficiency is not impaired is:
- 10000 ft
 - 2500 ft
 - 8000 ft
 - 25000 ft
52. A braking action of 0.35 -0.30 reported on a SNOWTAM is:
- unreliable
 - medium
 - good
 - poor
53. Which of the following requirements should be met when planning a flight with icing conditions:
- The aircraft shall be equipped with approved ice-protection systems
 - The aircraft shall before flight be sprayed with anti-icing fluid
 - A meteorologist shall decide whether the flight may be performed without ice-protection systems
 - The flight should be planned so that a change of cruising level can be initiated rapidly
54. The accumulation of frost, snow or ice on an aeroplane in flight induces, amongst other serious consequences, an increase in the:
- value of the stall angle of attack
 - tuck under
 - stalling speed
 - roll rate
55. A runway covered with 5 mm thick water, is said to be:
- damp.
 - contaminated.
 - wet.
 - flooded.

SECTION B

- What are the contents and conditions of the Air Operators certificate? (6 Marks)

2. List the four types of Alternates? (4 Marks)
3. List any 5 items that will be covered during the briefing information to the passengers before take-off. (5 Marks)