

EAST AFRICAN SCHOOL OF AVIATION FINAL EXAMS AIRCRAFT GENERAL KNOWLEDGE

Duration: 2 hrs

DAY/DATE: 09/11/2016 TIME:2.00 – 4.00 PM

INSTRUCTION TO CANDIDATES

- 1. Attempt ALL Questions in Section A
- 2. Attempt ALL questions in section B

Answer all questions

- 1. An airline is planning a flight that will require a technical landing in a neighboring state. Which freedom of the Air will be exercised?
 - a) 2nd freedom
 - b) 1st freedom
 - c) 3rd freedom
 - d) 4th freedom
- 2. On a PAPI system the pilot, during an approach sees three white lights furthest from the runway and one red light closest to the runway. The aircraft is
 - a) Below the approach glide slope
 - b) Above the approach glide slope
 - c) Perfectly on the correct glide slope
 - d) On or close to the approach path
- 3. An Aircraft Operating Manual contains
 - a) the normal, abnormal and emergency procedures relating to the operation of the aircraft
 - b) the overall, general company policies and procedures regarding the flight operations it conducts
 - c) the circumstances, limitations and procedures for release or continuance of flight with inoperative components, equipment or instruments
 - d) the procedures and limitations for servicing and loading of the aircraft
- 4. Which of the following annexes to the Chicago convention contains standards and recommended practices deals with departure of persons and their baggage in international flights
 - a) Annex 6
 - b) Annex 15
 - c) Annex 9
 - d) Annex 8
- 5. The aerodrome reference code consists of code element 1 Aerodrome Reference field length) and code element 2. What des code element 2 define
 - a) Wing span and inner main gear wheel span
 - b) Fuselage width and inner main gear wheel span
 - c) Wing span and outer main gear wheel span
 - d) Fuselage width and outer main gear wheel span
- 6. Which of the following is not true as concerns a certificate of fitness for flight-?
 - a) The certificate is issued by an appropriate qualified person;
 - b) The certificate is approved by the authority and is valid for 12 months
 - c) The certificate is the basis under which the Authority may issue a special flight permit
 - d) The certificate may be used as a basis to flight test an aircraft after repair.
- 7. A clearway is defined as a rectangular area established to

- a) Reduce the risk of damage to aircraft running off the runway
- b) Protect the aircraft during takeoff or landing operations
- c) Permit the aircraft to stop if it fails to take off
- d) Permit the aircraft to make a portion of its initial climb to a specific height
- 8. The privilege for an airplane registered in one state and en-route to or from that state, to take on passengers, mail and cargo in a second state and put them down in a third state is called:
 - a) 5th freedom rights
 - b) 3rd freedom rights
 - c) 4th freedom rights
 - d) 1st freedom rights
- 9. What color are runway markings
 - a) Red
 - b) Green
 - c) Yellow
 - d) White
- 10. If a person is injured by a part falling from of an aircraft flying over the state but registered in another state, which convention covers this?
 - a) Chicago convention of 1944
 - b) Tokyo convention of 1963
 - c) Paris convention of 1919
 - d) Rome convention of 1952
- 11. An area defined about the extended runway centerline primarily intended to reduce the risk of damage to the aircraft under shooting or over running the runway is defined as
 - a) Clearway
 - b) Runway strip extension
 - c) Runway end safety area
 - d) Altimeter check location extension
- 12. Which of the following is true of an Operations Manual?
 - 1. It is the responsibility of the operator to provide it to operations and other personnel
 - 2. A current copy of the manual must be submitted to the authority for approval
 - 3. The manual is specific for each type and variant of aircraft
 - 4. The manual contains the overall, general company policies and procedures
 - a) 1, 2, 3, 4 are correct
 - b) 2, 3, 4 are correct
 - c) 1, 2, 4 are correct
 - d) 1, 3, 4 are correct
- 13. According to the Chicago convention and the "international" law, which of the states below has the first obligation to prosecute an offence?

- a) The state from where the aircraft departed from
- b) The state whose citizens were involved in the offence
- c) The state of registry of the aircraft
- d) The state in whose airspace the offence is committed
- 14. Concerning aircraft registration marks, a hyphen is sometimes used to separate the Nationality and the Registration marks. When is the hyphen used
 - a) When the first character of the registration mark is of the same type character as the last character of the nationality mark
 - b) When the first character and the last character of the registration marks are the same
 - c) When the last character of the registration mark is the same as the last character of the nationality mark
 - d) When the first character of the nationality mark is a number and the rest of the characters are letters
- 15. What does a simple approach lighting system consist of
 - a) Five bar and centerline
 - b) Centre line and runway edge lights
 - c) Single centre line and a crossbar
 - d) Threshold lights and wing bar lights
- 16. Which of the following can be issued by a licensed aircraft maintenance engineer?
 - a) Certificate of airworthiness
 - b) Certificate of fitness to fly
 - c) Certificate of registration
 - d) Air operators certificate
- 17. Which convention makes acts of violence on board an aircraft, destruction of aircraft in flight and destroying or damaging any air navigation facility punishable?
 - a) The Chicago convention
 - b) The Warsaw convention
 - c) The Montreal convention
 - d) The Tokyo convention
- 18. If you are slightly below the glide slope what indications would you expect to see from a PAPI system
 - a) 3 white lights and one red light the red nearest the runway
 - b) 3 red lights and one white light the white nearest the runway
 - c) 3 white lights and one red light the red farthest from the runway
 - d) 3 red lights and one white light the white farthest from the runway
- 19. Which of the following document contains the circumstances, limitations and procedures for release or continuance of flight of the aircraft with inoperative components, equipment or instruments?
 - a) The operations manual

- b) The aircraft operating manual
- c) The minimum equipment list
- d) The Performance planning manual.
- 20. When fixed distance markings are provided they shall commence at
 - a) 150 m from the aiming point
 - b) 150 m from the threshold
 - c) 300 m from the aiming point
 - d) 150 m from the threshold
- 21. For which flights is the article about cabotage in the Convention of Chicago applicable?
 - a) For cargo flights using special flight permits
 - b) For national carriers of less than 5700kgs
 - c) For international flights
 - d) For domestic flights
- 22. Which of the following ICAO documents contain International Standards and Recommended ractices (SARPS)?
 - a) Procedures for Air Navigation Services (PANS)
 - b) Regional Supplementary Procedures (SUPPS)
 - c) Annexes to the Convention on international civil aviation
 - d) ICAO Technical Manuals
- 23. What is the width of a Runway End Safety Area (RESA)
 - a) 150 m
 - b) Not less than 30 m
 - c) The same as the runway
 - d) At least twice the width of the runway
- 24. Aerodrome signs shall be in the following configuration
 - a) Mandatory instruction signs black background with red inscriptions
 - b) Information signs yellow background with black or yellow inscriptions
 - c) Mandatory instruction signs red background with black inscriptions
 - d) Information signs orange background with black inscriptions
- 25. There are 2 types of taxiway holding point markings. Which type is furthest to the runway?
 - a) Depends on the category of the runway
 - b) Pattern B
 - c) Depends on the type of the taxiway
 - d) Pattern A
- 26. Which of the following is not true of an air operator certificate?
 - a) The certificate consists of two parts
 - b) The certificate shall be displayed to the public in a prominent position
 - c) The certificate must be carried on board an aircraft at all times during flight
 - d) The certificate contains the terms and conditions applicable to the certificate.

- 27. The following persons are authorized to approve an aircraft for return to service except one. Who is not authorized
 - a) An approved maintenance organization
 - b) A person performing maintenance under the supervision of an engineer
 - c) A licensed aircraft maintenance engineer
 - d) A pilot licensed by the authority
- 28. The Authority may issue an air operator certificate to an applicant if that applicant fulfils the following conditions. Which one is not mandatory?
 - (a) has its principal place of business and is registered in Kenya;
 - (b) has airworthiness certificates for all the aircraft to be operated
 - (d) holds a valid air service licence issued by the authority
 - (c) is properly qualified and adequately staffed and equipped to conduct safe operations in commercial air transport .
- 29. The continuous validity of a certificate of airworthiness is depended upon what
 - a) The continuous registration of the aeroplane
 - b) The continuous use of the aeroplane for the purpose stated in the certificate of registration
 - c) The continued airworthiness of the aeroplane as determined by periodic inspections
 - d) The establishment of a schedule for servicing and repair of the airplane in accordance with the regulations
- 30. What is the color of threshold lights
 - a) Green viewed from all directions
 - b) White viewed from the direction of approach
 - c) Red viewed from all directions
 - d) Green viewed from the direction of approach
- 31. What is the requirement for the issue of an AOC?
 - a) Not already hold an AOC issued by another authority
 - b) Have a fleet of serviceable aeroplanes
 - c) Have registered offices in all countries of operations
 - d) Have facilities for all maintenance
- 32. A minimum equipment list contains
 - a) The overall general company policies and procedures
 - b) The procedures and limitations to be followed in servicing of aircraft
 - c) The circumstances, limitations and procedures for release of aircraft with inoperative equipment
 - d) The normal, abnormal and emergency procedures to be followed in aircraft operations

- 33. An aircraft shall not be registered or continue to be registered in Kenya if the following conditions are not me. Which one is not a factor?
 - a) It is operated by a person who is not a Kenyan citizen
 - b) an unqualified person is the owner of the aircraft
 - c) it would be inexpedient in the public interest for the aircraft to be or to continue to be registered in Kenya;
 - d) the aircraft does not qualify to be issued with a certificate of airworthiness .
- 34. Which of the following statement is correct?
 - a) Taxiway markings are white and runway markings are yellow
 - b) A clearway has the same function as the RESA
 - c) Taxiway markings are yellow and runway markings are white
 - d) Runway markings are yellow and taxiway markings are green
- 35. The Authority may reject an application for an air operator certificate if
 - a) the applicant is not a Kenyan citizen
 - b) the applicant previously held an air operator certificate which was revoked;
 - c) the applicant unsuccessfully applied for a certificate within 12 months
 - d) the applicant wishes to use foreign registered crew members
- 36. When an aircraft is making a flight over foreign territory, for non- commercial purpose, or wishing to land for non- traffic purposes, advance notification is to be given to the foreign state. This information is to be received
 - a) At least 12 hours in advance of arrival
 - b) At least 2 hours in advance of arrival
 - c) At least 24 hours in advance of arrival
 - d) At least 12 hours after take off
- 37. Who compiles the minimum equipment list (MEL) and who approves it?
 - a) The manufacturer and approved by the airline
 - b) The Authority and approved by the state
 - c) The operator and approved by the authority
 - d) The operator and in approved by the director of maintenance
- 38. Which of the following sets of documents shall be retained for a period of 2 years
 - a) Maintenance of aircraft personnel records and Mass and Balance records
 - b) Flight crew records and records of personnel doing Flight dispatch duties
 - c) Flight plans and Journey logs
 - d) Flight Crew records and Journey logs
- 39. What does a red square with yellow diagonals in the signals square indicate?
 - a) Take off and taxi on the runway and taxiways only

- b) Take off and landings on the runway only but taxiing on the grass permitted
- c) Aerodrome is closed and landings are prohibited
- d) Caution glider flying in progress

40. 5th Freedom of the Air is:

- a) The right to carry revenue traffic between two points within a treaty nation (B) by the carrier of another nation (A)
- b) Revenue traffic flown between two nations (C to A) by carrier of a third nation (B)
- c) The right to carry revenue traffic between any points of landing on flights between 3 or more treaty partner nations (B to C to D)
- d) The right to carry revenue traffic from treaty partner's territory (B) to carrier's base nation (A)
- 41. When landing you see yellow runway edge lights. What do this mean
 - a) You are slightly below the glide path
 - b) You are within 600m of the end of the runway
 - c) You are in the stopway
 - d) The ground beyond the lights is unfit for aeroplane movement
- 42. The standards of Annex 8 (Airworthiness of Aircraft) relate to:
 - a) Large aeroplanes
 - b) Large turbojet powered aeroplanes
 - c) Aircraft with MTOM greater than 5700kgs
 - d) Passenger carrying aeroplanes
- 43. Certain registration marks are prohibited by Annex 7 (Aircraft Nationality and Registration Markings). These are:
 - a) XXX PAN TTT
 - b) OOO MAY DAY
 - c) LLL ZZZ YYY
 - d) EEE LLL NHQ
- 44. What does a white horizontal dumb-bell displayed in the signal square indicate?
 - a) Take off and taxi on the runways and taxiways only
 - b) Landings, take offs and taxiing is only permitted on the runways and taxiways
 - c) The runways are not very strong
 - d) Exercise care during approaches and departures
- 45. What does a red flashing light from the control tower to an aircraft on the manoeuvring area mean?
 - a) Stop
 - b) Vacate the active runway immediately
 - c) Clear to taxi

- d) Return to the start point
- 46. Which of the following statements is true concerning the formation of ICAO
 - a) ICAO was created in December 1944 by 52 contracting states.
 - b) The Chicago convention came into being in April 1944 and Chicago was chosen as the ICAO headquarters.
 - c) All contracting states are members of the United Nations.
 - d) None of the above is correct.
- 47. Who is responsible for determining the continuing airworthiness of an aeroplane?
 - a) The State of Registry
 - b) The Owner/Operator
 - c) The pilot in command
 - d) The chief maintenance engineer and the operator
- 48. One of the main objectives of ICAO is to
 - a) Develop principles and techniques for international aviation
 - b) Approve ticket prices set by international airline companies
 - c) Approve new international airlines with jet engines
 - d) Approve new regulations from member states
- 49. Where must the certificate of registration of an aeroplane is kept whilst the aeroplane is in flight
 - a) In the registered office of the operator
 - b) By the authority of the state of registration
 - c) On the ground at the point of departure
 - d) In the aeroplane
- 50. An air operators certificate is valid for 12 months or for a shorter period occasioned by,
 - 1. The certificate being amended suspended, terminated or revoked by the authority
 - 2. The operator surrenders it to the authority
 - 3. The operator suspends operations for scheduled maintenance
 - 4. When the operator notifies the authority of suspension of operations
 - a) 1, 2, 4 are correct
 - b) 1, 4 are correct
 - c) 2, 3 are correct
 - d) 1, 2, 3, 4 are correct

PART B

- 1. Define any two sets of the following to differentiate them
 - i. Operations manual / Aircraft operating manual
 - ii. Runway strip / Runway stopway
 - iii. Contracting states / State of Registry

(8 marks)

2. (a) What is the difference between a Standard and a recommended practice?

(5 marks)

- (b) Explain the duties of ICAO member states as concerns Standards and recommended practices (4 marks)
- 3. An aircraft shall not be flown in Kenya unless the aircraft has a valid certificate of airworthiness. Under what circumstances would the Authority issue an aircraft with a special flight permit. (8 marks)
- 4. Explain how the Runway edge lights and the Runway centreline lights give distance information to the pilot (8 marks)
- 5. Explain the purpose and dimensions of the following areas associated with the Runway
 - i. Runway Strip
 - ii. Runway Stopway

(8 marks)

 According to the ICAO annex 7, Nationality and Registration marks of an aircraft shall be numbers, letters or both. Indicate with relevant examples the letter combinations that are no permitted to be used as registration marks (9 marks)