

2207/306

**AIRFIELD SAFETY AND PROCEDURES**

July 2019

Time: 3 hours



**THE KENYA NATIONAL EXAMINATIONS COUNCIL**

**DIPLOMA IN AERONAUTICAL ENGINEERING  
(AVIONICS OPTION)**

**AIRFIELD SAFETY AND PROCEDURES**

**3 hours**

**INSTRUCTIONS TO CANDIDATES**

*You should have the following for this examination:*

*Answer booklet;*

*Drawing instruments;*

*Mathematical table/Non-programmable scientific calculator.*

*This paper consists of **EIGHT** questions.*

*Answer **FIVE** questions in the answer booklet provided.*

*Maximum marks for each part of a question are as shown.*

*Candidates should answer the questions in English.*

**This paper consists of 3 printed pages.**

**Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.**

1. With respect to flight safety, outline aircraft accident reporting requirements under the following headings:
  - (a) primary action; (11 marks)
  - (b) secondary action. (9 marks)
2. Highlight the points to be observed when refuelling a commercial aircraft. (20 marks)
3. With reference to crash and rescue, explain the emergency locator transmitter requirements for all aeroplanes according to Kenya Civil Aviation Authority (KCAA). (20 marks)
4. Discuss the advice you would give to the directions of a new airline with respect to stores management as provided for by the Kenya Civil Aviation Authority under the following headings:
  - (a) quarantine stores; (9 marks)
  - (b) bonded stores; (4 marks)
  - (c) incoming documentation. (7 marks)
5.
  - (a) Outline five circumstances under which an aircraft maintenance engineers licence holder may not exercise certification privileges. (5 marks)
  - (b) Explain the requirements that must be satisfied for a new maintenance organization to be approved by Kenya Civil Aviation Authority (KCAA). (15 marks)
6.
  - (a) Describe the first aid procedure administered to a person who has suffered electrocution. (8 marks)
  - (b) Discuss the safety precautions to be observed when working with each of the following:
    - (i) electricity systems; (6 marks)
    - (ii) portable aircraft extinguishers. (6 marks)

7. (a) Explain the term unscheduled maintenance.

(3 marks)

(b) Describe the maintenance triggers for unscheduled maintenance.

(17 marks)

8. As the engineer in charge of a busy airline maintenance workshop, explain fire safety provisions to be complied with when handling each of the following categories of ground equipment for the purposes of lowering persons, goods or materials.

(a) hoists and lifts;

(10 marks)

(b) chain, rope and lifting tackles.

(10 marks)

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