

2107/308

AIRFIELD SAFETY AND PROCEDURES

June/July 2018

Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN AERONAUTICAL ENGINEERING  
(AIRFRAMES AND ENGINES OPTION)

AIRFIELD SAFETY AND PROCEDURES

3 hours

**INSTRUCTIONS TO CANDIDATES**

*You should have the following for this examination:*

*Answer booklet;*

*Drawing instruments.*

*This paper consists of EIGHT questions.*

*Answer FIVE questions.*

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

*Candidates should answer the questions in English.*

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

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

1. (a) Outline **seven** checks carried out on fire extinguishers periodically. (7 marks)
- (b) With the aid of a labelled sketch, describe the use and meaning of safety diamond with respect to hazardous materials. (13 marks)
- ~~2.~~ (a) Outline checks done prior to fueling an aircraft. (11 marks)
- (b) Highlight the procedure for starting a typical turbo-propeller engine. (9 marks)
- ~~3.~~ Describe ramp maintenance tasks done on an aircraft on arrival and before departure. (20 marks)
4. (a) Highlight the procedure of connecting power supply to the aircraft. (7 marks)
- (b) With the aid of sketches, show the difference between each of the following:
- (i) tail and universal trestle;
- (ii) tripod and bipod jacks. (8 marks)
- (c) Outline **five** maintenance checks carried out on hydraulic jacks. (5 marks)
- ~~5.~~ (a) Explain the purpose of each of the following maintenance manuals:
- (i) overhaul;
- (ii) structural;
- (iii) illustrated parts catalogue;
- (iv) maintenance manual. (8 marks)
- (b) Outline the contents of a typical aircraft maintenance manual. (12 marks)
- ~~6.~~ (a) Outline **five** requirements for issuance of certificate of maintenance inspection by the civil aviation authority. (5 marks)
- (b) Discuss each of the following types of maintenance inspections:
- (i) post flight;
- (ii) 100 hour;
- (iii) progressive. (15 marks)

7. (a) A supplier has delivered aircraft components to aircraft technical stores, outline the checks done to ensure quality. (9 marks)
- (b) Highlight the procedure carried out during storage of an aircraft. (11 marks)
- ~~8.~~ (a) Differentiate between an aircraft incidence and aircraft accident. (4 marks)
- (b) Explain **six** situations on which an occurrence is termed as an accident. (6 marks)
- (c) With reference to aircraft safety management, explain each of the following:
- (i) **four** requirements of an AOC;
- (ii) **six** elements stated in a safety manual. (10 marks)

**THIS IS THE LAST PRINTED PAGE.**