

SECTION A (Answer any THREE questions out of the five questions)

1 (a) Describe any FOUR types of aircraft ice formation.

(8marks)

(b) With aid of labelled sketches, describe the construction and operation of the following aircraft ice detectors:

(i) Hot ice detector

(ii) Pressure head detector,

(12marks)

2 (a) Differentiate between the terms “ anti-icing” and”de-icing” as applied to aircraft surface.

(4 marks)

(b) Outline the specific places each of the above 2 (a) are performed stating the best method of control suited in each place.

(16marks)

3 (a) With aid of labelled sketches explain the operation of the following types of aircraft fuel systems:

(i) Gravity feed

(ii) Pressure feed.

(8marks)

(b) Explain the construction of the THREE types of aircraft fuel tanks.

(6 marks)

(c) With aid of a labelled sketch explain the operation of a float switch in aircraft fuel tanks.

(8marks)

4 (a) Describe the following aircraft fire detection methods:

(i) Melting link detector

(ii) Differential expansion detectors

(iii) Continuous fire detector

(iv) Gas filled detector. **(12marks)**

(b) Explain the sequence of discharging fire bottle to put off engine fire from the cockpit.

(8marks)

5 (a) Discuss the layout of an aircraft waste and water system.

(10marks)

(b) Outline the major components in a portable water system.

(6 marks)

(c) Explain the purpose of waste and water system in an aircraft.

(4marks)

SECTION B (Answer any TWO question in this section)

1. Sketch and label the layout of an approved store and state the activities carried out in any five sections.

(20marks)

2. (a) Outline the purpose of inventory control on an aircraft technical store .

(5marks)

(b) Differentiate between the following terms as applied to an aircraft technical store:

(i) Quarantine an bonded

(ii) Centralized and decentralized

(iii) Lifer and shelf lifer parts.

(6marks)

(c) Describe the procedures of stores transaction in airline technical stores.

(9marks)

3. (a) State any SIX categories of aircraft maintenance license issued by KCAA.

(6marks)

(b) State the location of nationality and registration marks on a fixed wing aircraft.

(4marks)

(c) Define the following terms as used in aircraft maintenance:

(i) Approval

(ii) Authorization

(iii) Validation

(iv) Duplicate inspection

(v) License

(10marks)