

## **AIRFIELD & SAFETY PROCEDURES ( Y3 A&E and AVIONICS)**

1. (a) Outline FIVE factors that would cause an aircraft to crash

**(5 marks)**

(b) Sketch a wide body aircraft and indicate the escape route marking in accordance with the service bulletins

**(9 marks)**

(c) Differentiate the application of each of the following aircraft crash and rescue safety equipments :-

(i) Escape chute and life raft

(ii) Emergency radio beacon and black box recorder

(iii) Flare and life jacket

**( 6 marks)**

2 a) State the effects on an aircraft flying in cumulonimbus clouds

**(5 marks)**

b) Outline the safety awareness when working on cranes and lifting equipments

**(5 marks)**

c) State the safety precautions to be observed during each of the following maintenance tasks.

(i)Jacking

(ii)Towing

**(10 marks)**

3 (a) Differentiate between each of the following terms as applied to aircraft technical store:

(i) Receiving and dispatching

(ii) Stacking and racking

(iii) Quarantine and bonded (9 marks)

(b) With the aid of a block diagram show the layout of section of an aircraft approved technical store.

(9 marks)

(c) Outline the functions of an Inventory Control in aircraft technical store.

(5marks)

4. (a) Explain the nature, classification and extinguishing agent Identification of each of the FOUR types of aircraft fires. (12 marks)

(b) Explain each of the following:-

(i) Two reasons for not using metallic horn carbon dioxide fire extinguisher

(ii) Two methods for detecting aircraft fires

( 8 marks)

5. (a) Highlight the requirements of each of the following during ground handling :-

(i) Towing.

(ii) Distances during aircraft ground manoeuvres.

( 9marks)

(b) As an engineer in charge of a busy airline , suggest the measures you would put in place pertaining to the hazardous flammable materials.

(11marks)

6 (a) Outline the precautions observed during aircraft refuelling and defueling.

(8 marks)

(b) Outline the contents of the following aircraft documents:

(i) Illustrated Parts Catalogue

(ii) Maintenance Manual

(iii) Aircraft Wiring Manual

(iv) Trouble Shooting Manual

(12 marks)

7 (a) Highlight four methods of enhancing safety in the avionics workshop.

(4 marks)

(b) Outline FOUR reasons why human beings get electrocuted.

(4 marks)

(c) Write short notes with respect to each of the following :-

(i) Prevention of electrocution while working on high power aircraft equipment.

(ii) Handling of power cords .

(12 marks )

8 (a) Define the following terminologies :-

(i) Maintenance

(ii) Servicing

(iii) Rectification

(iv) Repair

(v) Salvage

(10 marks)

(b) Explain the purpose and state the classification of each of the following aircraft ground equipments :-

(i) Ladders and steps.

(ii) Lamps and flood lights.

(iii) Electrical servicing and starting trolley.

(iv) Low pressure air starting trolley

(v) Cabin pressure testing trolley.

(10marks)

