



EAST AFRICAN SCHOOL OF AVIATION EXAMINATION

ENGINEERING SECTION

END TERM EXAMINATION

EXAMINATION FOR THE AWARD OF DIPLOMA IN AERONAUTICAL ENGINEERING

SUBJECT: AEROPISTON ENGINES

STREAM: Y1 (Airframes & Engines)

Duration: 2 Hour

DAY/DATE: Tuesday 1st april, 2016

TIME: 2:00 – 4:00 p.m.

Instructions

- a) This paper consists of **TWO** printed pages.
- b) Answer **ALL** questions in this paper.

1. Describe the following types of reciprocating engines: (14 marks)
 - (a) In-line.

 - (b) Double radial.

2. With the aid of a labeled schematic diagram of typical dry sump oil system for an aeropiston engine, show the parts and indicate the flow. (20 marks)

3. Using a well labeled sketch, explain the operation of a float type carburetor. (10 marks)

4. (a) Outline **FOUR** requirements of a good lubricant to be used on an aircraft engine. (4 marks)

- (b) Explain the **THREE** determinants of the grade of oil to be used for lubricant. (6 marks)

5. Outline **SIX** functions of lubricants. (6 marks)

6. With the aid of a sketch, explain the operation of a magneto ignition system. (10 marks)