EAST AFRICAN SCHOOL OF AVIATION EXAMINATION

END - TERM II

ENGINEERING SECTION

EXAMINATION FOR THE AWARD OF DIPLOMA IN AERONAUTICAL ENGINEERING

SUBJECT: AIRFIELD & SAFETY PROCEDURES & RESEARCH METHODS

TREAM: MODULE 2 (AVI & A/ E)   Duration: 3 Hrs.

DAY/DATE: Monday: 4 /4/2017   TIME: 2.00 – 5.00 PM

INSTRUCTIONS TO CANDIDATE:

1.   *This paper consists of **TWO** (**2**) printed pages.*
2.   *Cheating will lead to exam cancellation.*

Answer all question in this section

1. State and explain four areas that an effective FOD control program should address. **(20marks)**

2. Explain how you would write a technical report on a landing gear which collapsed while the aircraft was on ground and killed a technician **(20marks)**

3. State five manuals used during aircraft maintenance. **(5marks)**

4. What is safety management system? **(5marks)**

5. State four maintenance concepts adopted in the aviation industry. **(4marks)**

6. State six functions of the quality office in an AMO **(6marxs)**

SECTION B: RESEARCH METHODS

Answer Any Two Questions

7. It is argued that a good problem identification is the backbone to quality research.
   a) In the view of this argument, explain four criteria of selecting a good research problem.

   (15 marks)
   b) Explain two sources of in research problem.   **(6 marks)**
   c) Differentiate between the two types of hypotheses in research.   **(4 marks)**

8.
   a) Differentiate between inferential and descriptive analysis.   **(6 marks)**
   b) Explain three sampling techniques in research.   **(12 marks)**
   c) Outline the research process.   **(7 marks)**

9.
   a) Identify four instruments used in data collection.   **(4 marks)**
   b) Explain four ethical issues in research.   **(16 marks)**
   c) Differentiate between induction and deduction as applied in the research thought process.

   (5 marks)

10.
   a) Highlight five advantages of using a questionnaire in data collection.

   (5 marks)
   b) Outline five attributes of good literature review.   **(5 marks)**
   c) Write short notes on the following:
      i)   Variable
      ii)   Sample
      iii) Research tool
      iv)   Population
      v)   Nominal scale   **(15 marks)**