EAST AFRICAN SCHOOL OF AVIATION

ATC COURSE No. 73

FINAL

SUBJECT: AERODROMES AND GROUND AIDS

STREAM: ATC COURSE No. 73   **Duration: 2 Hrs**

DATE: 07/04/2017   **TIME 8.15 – 10.15 AM**

INSTRUCTION TO CANDIDATES

1. This paper consists of *THREE* **(3)** Pages
2. Attempt all questions
3. Read and understand all questions before attempting

Q1. Define the following terms:
   a. Manoeuvring area
   b. Stopway
   c. TODA
   d. Threshold
   e. Aircraft classification number (ACN)   **(10 Marks)**

Q2. Describe the following runway markings

   a. Threshold markings
   b. Runway holding position markings
   c. Aiming point markings
   d. Runway centerline markings
   e. Runway designator markings   **(10 Marks)**
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Q3 List three obstacle limitation surfaces   **(3 Marks)**

Q4. Instruction signs which are part of visual aerodrome markings for navigation consist of a
_____ inscription on a _____ background. Three examples of these instruction signs
are: **(5 Marks)**

Q5.   a. List 5 elements of aerodrome data published in the AIP   **(5 Marks)**
       b. Decode the following data found in the AIP: **(2 Marks)**
            PCN35/R/B/X/U

Q6.   a. List the contents of an emergency plan document.   **(5 Marks)**
       b. List 5 agencies expected to respond to an emergency at an aerodrome. **(5 Marks)**
       c. List the 4 categories of expected emergencies at an aerodrome   **(4 Marks)**
       d. What is the responsibility of the emergency operational center?   **(1 mark)**

Q7.   a. List the 5 runway lights and their colors.   **(5 Marks)**
       b. List the 5 taxiway lights and their colors.   **(5 Marks)**

Q8.   Given the following data,
   • Runway length required for LANDING at sea level in standard atmosphere is 2100 M
   • Runway length required for TAKEOFF at a sea level site in standard atmosphere is 1800
     M
   • Aerodrome elevation is 200m
   • Aerodrome reference temperature is 24°C

- Temperature in the international standard atmosphere for 200 M is 13.7°C
- Runway slope is 0.4 %

What is the actual length of the runway? (5 Marks)

(Show your calculations)

Note: The basic runway length should be increased by 7% for every 300 M of elevation

Runway take off length corrected for elevation and temperature =

Corrected length for elevation x (Aerodrome temp – ART) 0.01 + corrected length for elevation

Runway take off length corrected for elevation, temperature and slope=

(Runway take off length corrected for elevation and temperature x slope x0.1) + Corrected Length for elevation and temperature

Q9 .a. Given the following data relating to HKJK R06,

- TORA is 4117m
- Stopway is 61m
- Clearway is 300m
  What are the declared distances for R06?   **(3 Marks)**

(Show your calculations)

b. Threshold for R06 is displaced by 200m. What is the new LDA?   **(2 Marks)**