



**COLLEGE**

**UNIVERSITY EXAMINATIONS**

**FIRST YEAR EXAMINATION FOR THE AWARD OF DEGREE OF  
MASTER OF ARTS (GEOGRAPHY)**

**GEOG 530: CLIMATOLOGY**

**STREAM: M.A (GEOGRAPHY)**

**TIME: 3 HOURS**

**DAY/DATE: THURSDAY 4/8/2011**

**11.30 A.M. – 2.30 P.M.**

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**INSTRUCTIONS:**

Answer question ONE and any other TWO questions.

1. Human beings are conscious of the effects of climate change and variability. As a result, there are international, national and local level initiatives to mitigate and adapt to climate change and variability. Expound these arguments. [30 marks]
  2. Discuss the significance of studying the origin and development of climatology and meteorology. [20 marks]
  3. Climate modeling scenarios show that the East African region will experience upward trends in rainfall under global warming. If it comes to pass, this will be good news to the people of arid and semi-arid lands and bad news to those in highland areas. Critique the validity of these statements. [20 marks]
  4. (a) Evaluate Warren Thorthwaite classification of climates. [8 marks]  
(b) Describe the characteristics of African climatology. [12 marks]
  5. (a) Make brief notes on the following systems affecting rainfall in Eastern Africa:
    - (i) The Inter Tropical Convergence Zone (ITCZ)
    - (ii) The El Niño/Southern Oscillation (ENSO)
    - (iii) Monsoons [12 marks]
  - (b) Explain the causes of the urban heat island. [8 marks]
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