THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

MAIN EXAMINATION

MAY – JULY 2018 TRIMESTER

FACULTY OF ARTS AND SOCIAL SCIENCES

DEPARTMENT OF HUMANITIES

REGULAR PROGRAMME

GEO 111: CARTOGRAPHY AND MAP ANALYSIS

Date: JULY 2018	**Duration: 2 Hours**
INSTRUCTIONS: Answer Question ONE and any other TWO Questions	

Q1.   a)   Elaborate steps taken to draw a cross-section/relief.   **(6 marks)**

     b)   Explain any ways a geographer can identify the direction of flow of a river on a map.   **(2 marks)**

     c)   Using a diagram distinguish between latitude and longitude. **(2 marks)**

     d)   Using an illustration, explain how the following would appear on a map.   **(5 marks)**
   i)   Escarpment.
   ii)   Convex hill.

     e)   Express 1cm rep 2.5km as a **ratio** and **linear scale**.   **(5 marks)**

     f)   Using an illustration explain how to find **6 figure grid reference** and **bearing** of a location on a map.   **(5 marks)**

     g)   Describe how to calculate the area of the plantation using grid square method.   **(5 marks)**

Q2.   a)   Discuss the relevance of GIS to a cartographer.   **(10 marks)**

     b)   Using the free hand lettering technique write your name.   **(10 marks)**

Q3. a) Using a diagram examine the difference between a saddle and a pass.
(10 marks)

b) Explain the three main types of spatial data represented on a map.
(10 marks)

Q4. a) The scale of a map is 1: 50,000 and the map distance from point A to B is 4 cm. The contour units are given as follows, 600 and 1600. Calculate the gradient of the land. **(10 marks)**

b) Discuss the process of calculating the drainage density. **(10 marks)**

Q5. Using an illustration of 20cm by 10cm, explain how a map can be reduced by half using grid square method. **(20 marks)**

END