

312/1

GEOGRAPHY

Paper 1

Time: 2¼ Hours

**TOP NOTCH EXAM MERIT TWO (PRE-MOCK) 2016  
KENYA CERTIFICATE OF SECONDARY EDUCATION.**

**INSTRUCTIONS**

- This paper has two sections A and B.
- Answer all the questions in section A.
- In section B, answer question 6 and any other two questions.
- Answer section A and each question attempted in section B on a separate answer sheet.
- Failure to follow instructions will be penalized.

**SECTION A**

**Answer all questions in this section**

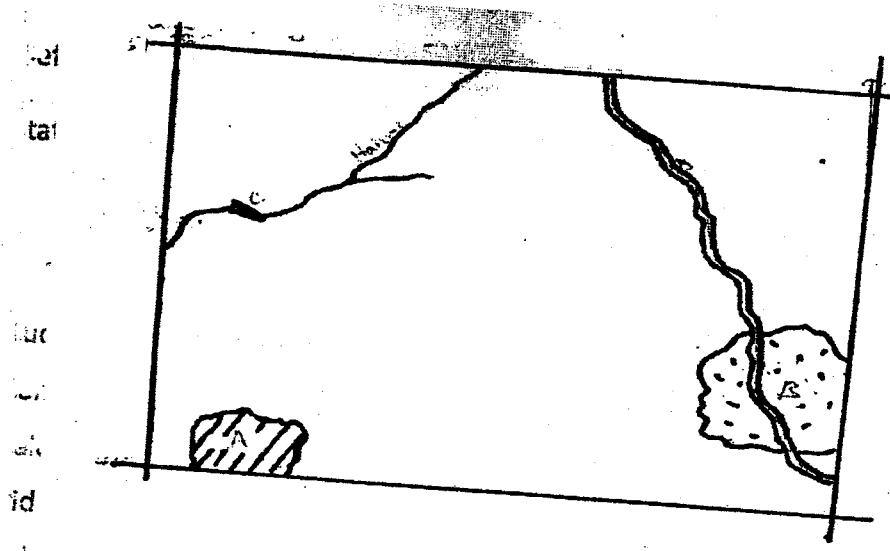
1. (a) What is the relationship between Geography and Physics. (2 marks)
- (b) Name the **three** main layers of the atmosphere from the earth's surface upwards. (3 marks)
2. (a) Name **two** layers of discontinuity that are part of the interior structure of the earth. (2 marks)
- (b) State **three** characteristics of the outer core in the interior structure of the earth. (3 marks)
3. (a) Distinguish between orogeny and orogenesis. (2 marks)
- (b) Name the countries where the following fold mountains are found. (3 marks)
  - i) A kwapim hills
  - ii) Deccan Plateau
  - iii) Cape ranges

- 4. a) State three ideal conditions for the formation of an artesian well (3marks)
- b) Give two ways in which underground water may reach the earth surface. (2marks)
- 5. (a) Define a lake. (2marks)
- (b) State three effects of a lake on the climate of the surrounding areas. (3 marks)

**SECTION B (75marks)**

Answer question 6 and any other two questions from this section

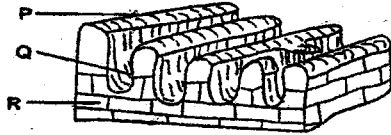
- 6. Study the map of Karatina (1:50000) sheet 121/3 provided and answer the following questions.
  - (a) (i) Convert the RF of the map into a statement scale. (1mark)
  - (ii) Calculate the bearing of the church at Hiriga grid square 8457 from the cattle dip at Kaburuini grid square 8756. (2marks)
  - (iii) Calculate the area of Karatina town. Give your answer in square kilometres. (2marks)
  - (iv) Name the two districts covered by the map. (2marks)
- (b) The rectangle below represent an area on the map extract bounded by easting 85 and 92 and northing 45 and 51.



- (c) Identify the features marked A, B, C and D. (4marks)
- Citing evidence from the map, give three economic activities carried out in the area covered by

the map.

- (d) Apart from forests, name three types of natural vegetation found to the East of Easting 94. (6marks)
- (e) Describe the drainage of the area covered by the map. (3marks)  
(5marks)
- 7.a)i) Name three features that form as a result of river erosion. (3marks)
- ii) Describe the following processes of river transportation. (2marks)
- Suspension
  - Traction
- (b) i) Using a well labeled diagram describe how a natural levee forms. (2marks)  
(5marks)
- ii) Outline two factors that may lead to the flooding of a river with natural levees. (2marks)
- iii) Give two ways in which rivers can improve food security in a region. (2marks)
- (c) Your class is planning to carry out a field study of a river in its youthful stage.
- (i) Formulate three hypotheses for your study. (3marks)
- (ii) Give three reasons why it would be necessary to write a work schedule for the study. (3marks)
- (iii) In what ways would you record the data collected from the study. (3marks)
8. (a) Name four types of faults. (4marks)
- (b) State three causes of faulting. (3marks)
- (c) Using well labelled diagrams, describe the formation of Rift valley by compressional forces. (6marks)
- (d) Apart from Rift valley, name three features formed through faulting. (3marks)
- (e) You intend to carry out a field study on faulting at the Rift valley.
- (i) Identify three sources of data you would use to prepare for the study. (3marks)
- (ii) State three positive effects of faulting to human economic activities you are likely to identify. (3marks)
- (iii) Outline any three problems you are likely to encounter during the field study. (3marks)
9. The diagram below shows some surface features in a karst region. Use it to answer question (a)



- a) Name the features marked P, Q and R. (3marks)
- b) Outline three factors that influence the development of karst scenery. (3marks)
- c) Using suitable diagrams, describe how the following features which are found in limestone areas are formed.
- i) A swallow hole (5marks)
- ii) A doline (3marks)
- d) Explain three ways in which limestone landscapes influence human activities. (6marks)
- e) Form four students of your school undertook field work on a karst landscape.
- i) State two objectives of their study. (2marks)
- ii) Give one reason why they need to pre-visit the area. (1mark)

10)(a) List

- i) Four characteristics of desert soil. (4 marks)
- ii) Two factors that contribute to soil leaching. (2 marks)
- b) Explain how each of the following factors influence the formation of soil.
- i) Parent rock (2 marks)
- ii) Living organisms (2 marks)
- iii) Topography (2 marks)
- c) Draw a well labelled diagram of a soil profile of a mature soil. (5 marks)
- d) Explain four ways in which human activities contribute to soil erosion. (8 marks)