

312 /1  
GEOGRAPHY  
PAPER ONE  
FORM 4  
MARCH / APRIL 2013  
TIME: 2<sup>3</sup>/<sub>4</sub> HOURS

# PENTAGON JOINT EXAMINATION - 2013

WARENG DISTRICT

Kenya Certificate of Secondary Education (KCSE)

**FORM FOUR**

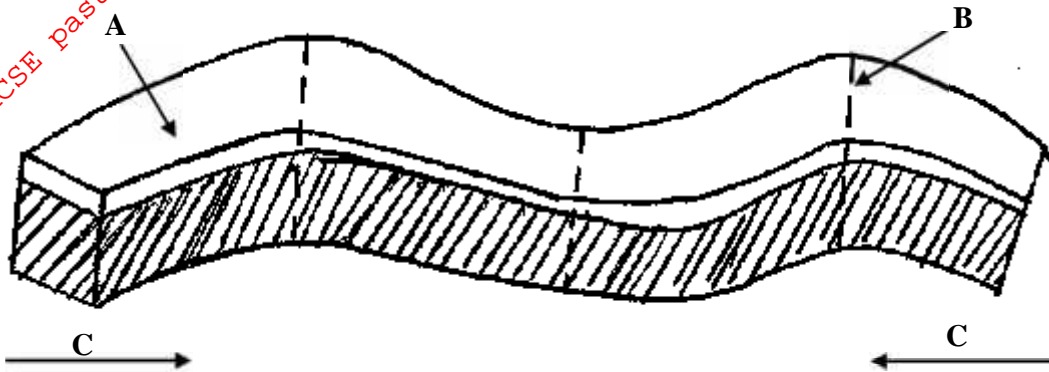
## INSTRUCTIONS TO CANDIDATES

- \* This paper consists of **two** sections **A** and **B**.
- \* Answer **ALL** the questions in section **A**. In section **B** answer question **6** and any other **two** questions.
- \* All answers **must** be written in the answer sheets provided.

**SECTION A (25 Marks)**

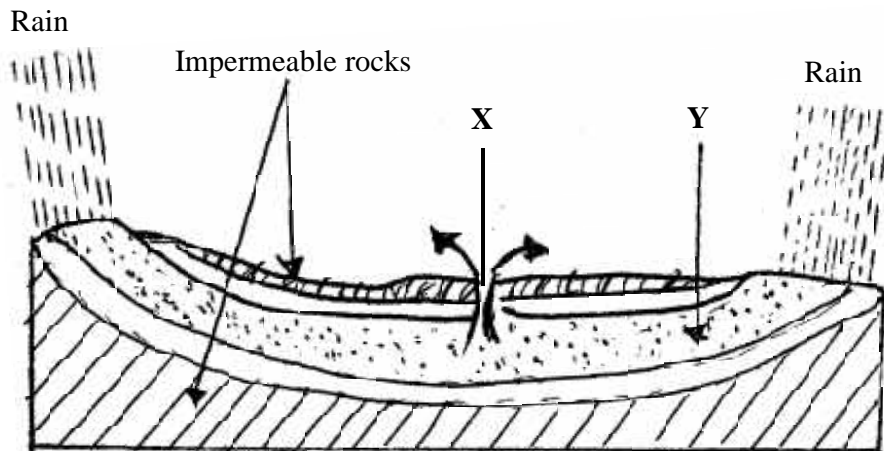
Answer **ALL** the questions in this section.

1. (a) Name **two** planets without satellites in the solar system. (2Marks)  
(b) State **three** effects of the earth's movement around the sun. (3Marks)
  
2. (a) State **two** importance of weather forecasting to man. (2Marks)  
(b) i) List any **two** forms of atmospheric precipitation. (2Marks)  
ii) Give the use of Barometer. (1Mark)
  
3. (a) Name **two** main types of earth movements. (2Marks)  
(b) The following figure shows a fold.



Name the parts marked A, B and C. (3Marks)

4. (a) State **three** reasons why some Rift Valley lakes are saline. (3Marks)  
(b) Give **two** examples of crater lakes in Kenya. (2Marks)
  
5. (a) State **three** factors that affect the occurrence of underground water. (3Marks)  
(b) The following diagram shows underground water.



Name the parts marked X and Y. (2Marks)

## SECTION B

Answer question 6 and any other two questions from this section.

6. Study the map of Kitale 1:50,000 (Sheet 75/3) provided and answer the following questions.
- (a) i) What type of map is Kitale map extract? (1Mark)  
ii) Give the longitudinal extent of the area covered by the map. (2Marks)  
iii) Give **two** methods used to represent relief on the map. (2Marks)  
iv) Name **three** drainage features on the map. (3Marks)
- (b) i) What is the length in kilometres of the all – weather road (loose surface) from Mc call’s bridge to Knights corner. (2Marks)  
ii) Assuming one hut has ten people living in it, estimate the number of people living on grid square 2331. (2Marks)  
iii) Apart from administration, give four other services that are provided at Kitale township. (4Marks)
- (c) i) Using a scale of 1cm to represent 40metres, draw a cross section from grid reference 410180 to grid reference 500180. (4Marks)  
ii) On the cross section, mark and name the following:  
- A dry weather road. (1Mark)  
- River Kiptarit. (1Mark)  
- A ridge (1Mark)  
iii) Calculate the vertical exaggeration (VE) of the section. (2Marks)
7. (a) i) Differentiate between minerals and rocks. (2Marks)  
ii) List down **three** classification of sedimentary rocks. (3Marks)
- (b) i) Name **three** methods that are used to estimate the age of rocks. (3Marks)  
ii) State **three** characteristics of intrusive igneous rocks. (3Marks)
- (c) Suppose you are asked to carry out a field study on rocks along Kerio Valley.  
i) Explain how you would use the following equipment and materials to carry out the fieldwork.  
- Geological hammer  
- Dilute hydrochloric acid  
- Lens and binoculars  
- Paper bags (4Marks)  
ii) Name **four** physical characteristics of rocks that you will be able to identify. (4Marks)  
iii) State **three** disadvantages of rocks that you might be able to identify. (3Marks)  
iv) State methods in which you would use to present your findings. (3Marks)
8. (a) i) Define the term vulcanicity. (2Marks)  
ii) Name **two** main types of vulcanicity. (2Marks)

- (b) i) Name **three** life cycle stages of volcanoes. (3Marks)
- ii) Explain **two** ways in which a caldera may be formed. (4Marks)
- iii) State **two** factors that determine the existence of a caldera lake. (2Marks)
- (c) i) With the aid of well labelled diagrams, explain the formation of a dyke as an intrusive volcanic land form. (6Marks)
- ii) Explain **three** advantages of volcanic mountains. (6Marks)
9. (a) i) Name any **three** agents that are responsible for weathering process. (3Marks)
- ii) Briefly explain the main differences between chemical weathering and physical weathering. (4Marks)
- (b) i) Explain how the following factors influence weathering.
- Nature of rock. (2Marks)
  - Climate (2Marks)
- ii) Briefly explain how block disintegration as a process of weathering take place. (4Marks)
- (c) i) Apart from man, state any four ways in which other animals contribute to weathering. (4Marks)
- ii) Explain **three** significances of weathering to physical and human environment. (6Marks)
10. (a) i) What is meant by the term arid areas. (2Marks)
- ii) Name **two** main agents of erosion in arid areas. (2Marks)
- iii) State **three** ways in which wind transports its load. (3Marks)
- (b) i) State **three** factors influencing the rate of wind transportation. (3Marks)
- ii) With the aid of well labelled diagrams, describe how a yardang is formed. (5Marks)
- (c) Students from Kapkoiga Girls went to study desert landforms in Marsabit county.
- i) Name any **three** features formed as a result of action of water they might have identified. (3Marks)
- ii) State any **three** ways in which they prepared of the study. (3Marks)
- iii) State any **four** problems they might have encountered during the study. (4Marks)