

312/1  
**GEOGRAPHY**  
PAPER 1  
OCTOBER 2016  
2¾ HRS

**KANDARA SUB-COUNTY SECONDARY SCHOOLS FORM 3 2016  
JOINT EXAMINATION**

Kenya Certificate of Secondary Education (KCSE)

**GEOGRAPHY**

Paper 1

October 2016

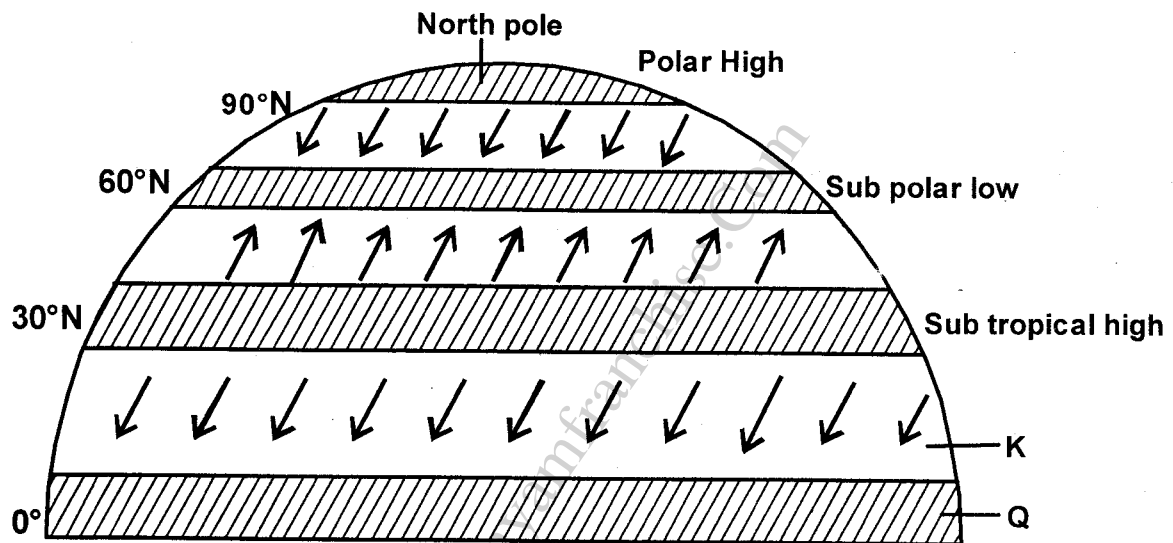
Time: 2¾ hours

**INSTRUCTIONS TO CANDIDATES**

- a) This paper has **two** sections **A and B**.
- b) Answer **All** questions in section **A** .
- c) Answer **questions 6** and any other **two** questions in section **B**.

## SECTION A

1. a) Give three components of the solar system. (3 marks)  
b) Identify two types of high level clouds. (2 marks)
2. a) Give three causes of earthquakes. (3 marks)  
b) Name two major earthquakes zones of the world. (3 marks)
3. a) Apart from carbonation, name two other chemical weathering process. (2 marks)  
b) Briefly describe carbonation as a weathering process. (3 marks)
4. a) The diagram below shows the world pressure belts of Northern hemisphere.

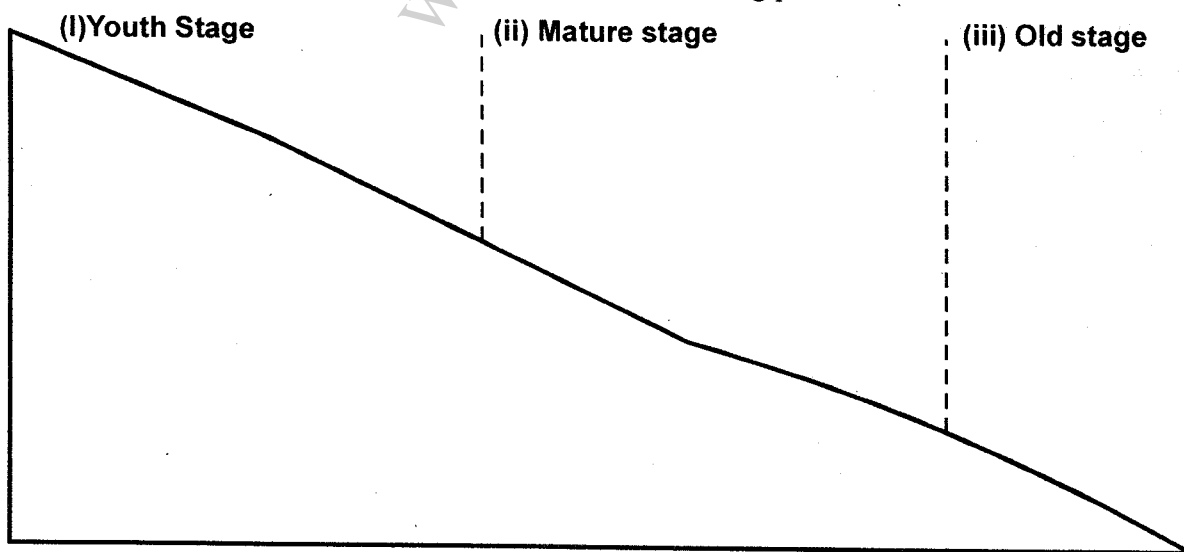


- a) Name the pressure belt marked  
i) Q. (1 mark)  
ii) Name the planetary wind system marked K. (1 mark)
  - b) State three characteristics of ITCZ. (3 marks)
5. a) Define the term soil. (1 mark)  
b) Differentiate between soil profile and soil catena. (2 marks)  
c) State two ways in which humus is important in maintaining soil fertility. (2 marks)

**SECTION B**

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

6. a) Study the map is Busia 1:50,000 (sheet 101/1) provide and answer the following questions.
- i) What type of map is Busia sheet. (1 mark)
  - ii) Convert the ratio scale of the map extract into a statement scale. (2 marks)
  - iii) What is the magnetic variation of the map of Busia when it was drawn. (2 marks)
  - iv) Give any two methods used to represent relief on the map. (2 marks)
  - v) What is the bearing of the trigonometrical station at Odiado hill grid reference 290333 from the road junction at Bumala market grid reference 336339. (2 marks)
- b) Draw a square 10cm by 10cm to represent the area West of Eastings 30 and Northing 40. On the square mark and label;
- i) An international boundary (5 marks)
  - ii) An air photo principal point
  - iii) River Sio
  - iv) The area above 1200 metres above the sea level
- c) Describe the drainage of the area covered by the map of Busia. (5 marks)
- d) Explain how drainage has influenced the distribution of settlement in the area covered by the map. (2 marks)
- e) Citing evidence from the map state two economic activities carried out in the area covered by the map. (4 marks)
7. a) i) Name two sources of river. (2 marks)
- ii) The diagram below shows the three stages of the long profile of a river.



- Give two features formed by the river in each of the three stages. (6 marks)
- b) Describe the process by which a river transports its load. (6 marks)

- c) Describe each of the following drainage patterns.
- i) Dendritic pattern (3 marks)
  - ii) Trellis pattern (3 marks)
- d) You are required to carry out a field study on the minerals deposited by a river:
- i) State two methods you would use to collect the data. (2 marks)
  - ii) State three advantages of studying the work of rivers through field work. (3 marks)
8. a) i) Give two processes through which wind erodes the earth's surface. (2 marks)
- ii) Explain the three ways through which the wind transports its loads. (6 marks)
- b) Describe how the following features found in hot deserts are formed;
- i) an oasis (5 marks)
  - ii) a zeugen (5 marks)
- c) You are supposed to carry out a field study of a semi-arid area in Kenya.
- i) State two ways through which you would prepare yourself for the field study. (2 marks)
  - ii) What information would you collect through observation that would indicate the area is turning into a desert. (2 marks)
  - iii) State three measures you would recommend to be put in place to control desertification in the area. (3 marks)
9. a) i) What is mechanical weathering. (2 marks)
- ii) Describe how an exfoliation dome is formed. (4 marks)
- b) Explain how the following factors influence weathering;
- i) Climate (3 marks)
  - ii) Plants and animals (4 marks)
- c) Describe three effects of soil creep. (6 marks)
- d) What is the significance of weathering. (6 marks)
10. a) Identify three types of submerged coasts. (3 marks)
- b) Describe these processes of marine erosion:
- i) Hydraulic (2 marks)
  - ii) Abrasion (2 marks)
  - iii) Attrition (2 marks)
- c) i) With the aid of a labelled diagram, describe the process through which a stack is formed. (8 marks)
- ii) Name three coastal features you are likely to find at the coastal of Kenya. (3 marks)
  - iii) State five ways in which Kenya benefits from her coastal feature. (5 marks)