

NAME.....INDEX NO:.....
CANDIDATE'S SIGNATURE.....DATE.....

KIKUYU SUBCOUNTY JOINT KCSE TRIAL EXAMINATION SEPTEMBER 2017

312/1

Geography

Paper 1

2²hours
4

Kenya certificate of secondary education

Geography

Paper 1

2-³hours
4

Instructions

this paper consists of two sections: A and B.

Answer ALL questions in section A. In section b answer question 6 and any other TWO questions.

All answers to be written on the answer booklet provided.

Candidates should check the question paper to ascertain that ALL pages are printed as indicated and that no questions are missing.

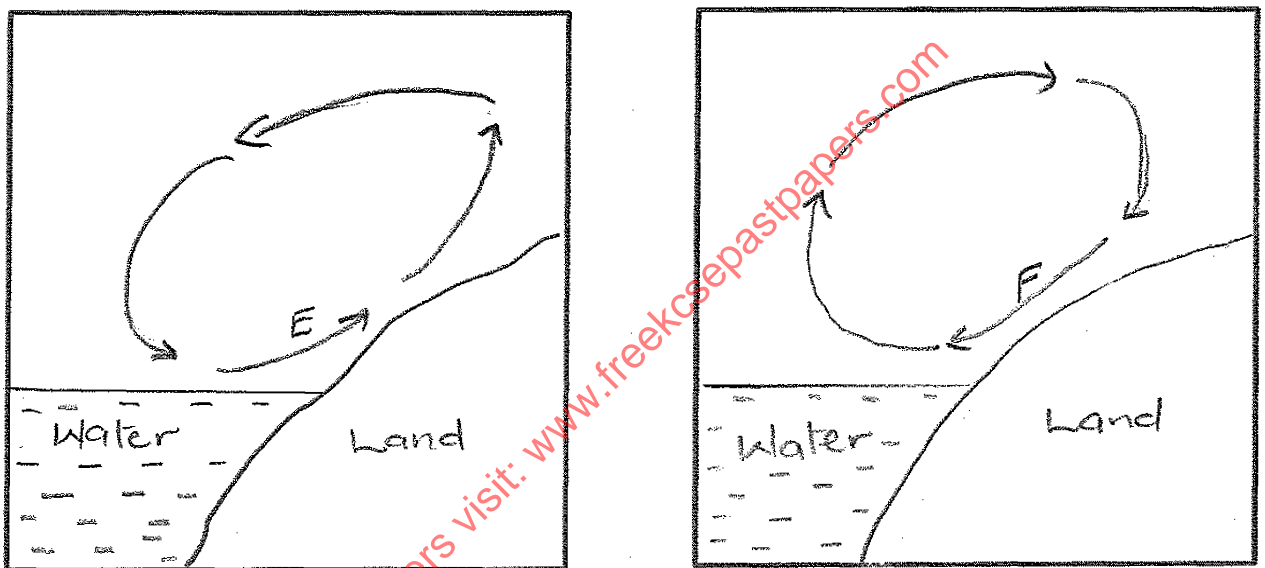
This paper consists of 6 printed pages

SECTION A

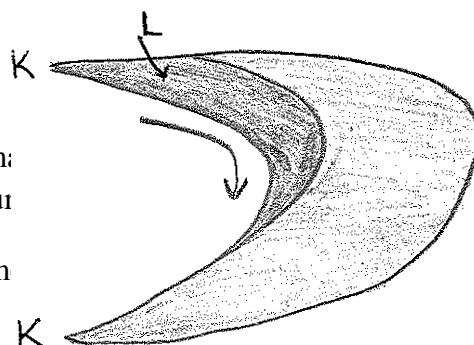
Answer all the questions in this section

- 1 .(a) Name two theories of the origin of the earth (2mks)
 (b) Name four layers of the earth's atmosphere (4mks)

2. The diagram below represent the flow of air currents. Use them to answer question



- (a) name the air current marked F
 (ii) Why does the air current marked E blow at night?
 (b) Give the reason why air cools as it rises
 3. (a) The diagram below shows a barchans



- i. Name feature m (1mk)
 ii. Name the air cur (1mk)
 (b) How is an oasis form (3mks)

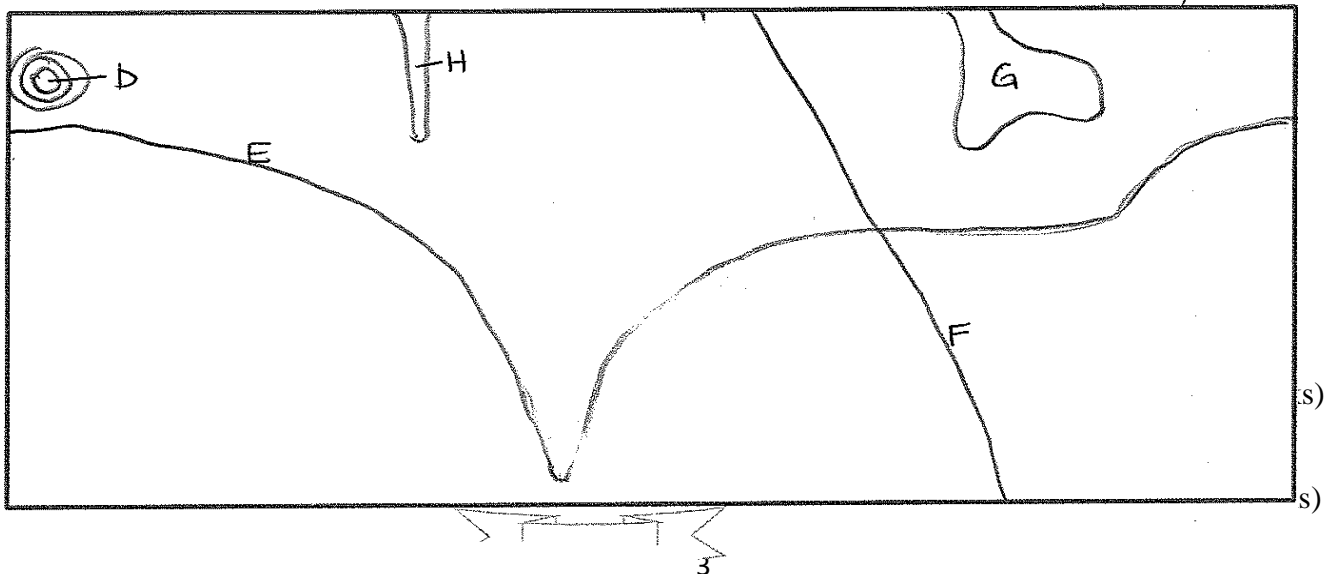
4. (a) What is an isobar? (link)
- (b) List four characteristics of modified equatorial climate (such as experienced in the Lake Victoria Basin) (4mks)
5. (a) What is the effect of the international Date line on time? (2mks)
- (b) If the local time in Nairobi at longitude 37° E is 10:00a.m, what will the time be at Buchanan in Liberia at longitude 10° W (2mks)

SECTION B

Answer question 6 and any other two questions

6. Study the map of Busia 1:50,000(sheet 101/1) provided and answer the following questions

- (a) (i) Give two artificial features found on the grid square 2129 on the map (2mks)
- (ii) State the longitudinal extent of the area covered by the map (1mk)
- (iii) Calculate the bearing of the air photo principal point at grid square 2539 from the air photo principal point at grid square 3141 (2mks)
- (b) (i) The rectangle below represent the area in the map extract bounded by Easting 30 and 39 and Northings 28 and 35. Identify and name the features marked D, E, F, G and H (5mks)



- (d) Describe the drainage of the area covered by the map (5mks)
7. (a) (i) What is a river divide? (2mks)
- (ii) Describe three ways by which a river transports its load (6mks)
- (b) Describe the characteristics of a river in its old stage (6mks)
- (c) Describe each of the following drainage patterns
- (i) Superimposed drainage pattern (3mks)
- (ii) Centripetal drainage pattern (2mks)
- (d) You have planned to carry out a study of a river in its youthful stage
- (i) State three ways in which you would prepare for the study (3mks)
- (ii) List three problems you are likely to experience during the study (3mks)
8. (a) i What is a rock? (1mk)
- (ii) Differentiate between plutonic rocks and volcanic rocks (4mks)
- (b) i State three conditions necessary for the growth of coral polyps (3mks)
- (ii) Give an example of each of the following types of igneous rocks
- Plutonic rocks (1 mk)
 - Hypabyssal rocks (1 mk)
 - Volcanic rocks (1 mk)
- (c) Explain four ways in which rocks contribute to the economy of Kenya (8mks)
- (d) Students from Maweni School went to study rocks in selected hillocks near their school (i) State why they required the following items during the field study
- Magnifying lens (2mks)
 - Acids (2mks)
 - Pick axe (2mks)
9. (a) State four characteristics of the inter-tropical convergence zone (4mks)
- (b) With the aid of a labelled diagram describe how relief rainfall is formed (6mks)
- (c) State five characteristics of the hot desert climate (5mks)

(d) You are required to carry out a field study to determine the relationship between climate and vegetation in your district

(i) Give three reasons why you would need the map of the district (3mks)

(ii) Give four reasons why sampling would be appropriate for the field study (4mks)

(iii) State three methods you would use to record data during the field study (3mks) S

10. (a) i What is soil catena? (2mks)

(ii) Draw a well labelled diagram to show a well-developed soil profile (5mks)

(iii) State three characteristics of soil found in the arid regions of Kenya (3mks) S

(b) (i) Give two factors that determine soil leaching (2mks)

(ii) State three economic uses of soils (3mks)

(c). Describe how the following types of erosion occur

(i) Sheet erosion (2mks)

(ii) Gully erosion (2mks) G

(d) Explain three ways in which human activities may lead to soil erosion (6mks)