## FORM FOUR CLUSTER KCSE MODEL13

## **GEOHRAPHY PAPER 1 QUESTIONS**

# **SECTION A (25 Marks)**

### Answer all the questions

- 1. (a)
  - (i) State two weaknesses of the passing star theory in explaining the origin of the earth.
  - (ii) Identify two characteristics of the sial layer of the earth's crust.
  - (b)
  - (i) Differentiate between local time and standard time.

(ii) Calculate the longitude of a place whose local time is 8.00 p.m. when the local time at Greenwich meridian is noon.

(iii) What does the term equinox refer to?

2. Use the diagram below to answer the question which follow:



- (a) Identify the type of earth movement shown in the diagram.
- (b) State the effect of the movement in the diagram on crustal rocks.
- 3. (a) Name two plate tectonic boundaries.

(b) State three characteristics of tectonic boundaries.

- 4. (a) List two theories which explain the formation of Fold Mountains.
  - (b) A part from Fold Mountains, name three other features which result from folding.
- 5. (a) What is a 'nunatak'?

(b) State two processes by which ice may move.

# SECTION B (75 Marks)

#### Answer question 6 and any other 2

6. Study the map extract, Karatina (Kenya 1:50,000) provided and answer the questions which follow.

(a)

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- (i) What type of map is the Karatina extract (1:50,000)?
- (ii) Give the longitudinal and latitudinal extend of the map.
- (iii) Identify the index to the adjoining sheet to the South-West of the Karatina sheet.

(b)

- (i) What was the magnetic declination of the sheet as at January 1992?
- (ii) Identify the main method used to show relief on the map.

(c)

- (i) Citing evidence from the map extract, describe the economic activities carried out in the area.
- (ii) Calculate the area of Mt. Kenya Forest in Kirinyaga District.
- (d) Give any four functions of Karatina Municipality, giving evidence from the map.
- (e) Give three proofs that the area covered is a highland region.

(f) Form three students of Tumutumu Girls High School plan to carry out a field study on the types of vegetation in their school neighbourhood.

- (i) State two objectives for their study.
- (ii) Formulate one null hypothesis for their field work.
- (iii) Give one activity they will carry out while in the field.

#### 7. (a)

- (i) Distinguish between minerals and rocks.
- (ii) List four types of igneous rocks based on their chemical composition.

(b)

- (i) Explain why intrusive igneous rocks are coarse grained.
- (ii) Briefly, describe the formation of organically formed sedimentary rocks.

(c)

- (i) Identify three types of metamorphism.
- (ii) List three methods by which the age of rocks may be determined.

(d) Form three students of Kipsis High School plan to carry out field work on rocks in the Mt. Elgon Sub-county.

- (i) List two activities they may carry out as they prepare.
- (ii) Why would they need to carry a hammer and polythene bag?
- (iii) State any two problems they are likely to encounter while in the field.

8. (a)

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- (i) What is a solfatara?
- (ii) List three types of volcanoes based on their life cycle.
- (b) State three ways in which a caldera may be formed.
- (c) Study the diagram below and answer the questions that follow.



(i) Identify the feature illustrated in the diagram.

(ii) Describe how the feature in (c i) above is formed.

(d) Explain four negative influence of vulcanicity on the physical and human environment.

(e) Form three students of Naro Moru High School carried out a field study on the influence of vulcanicity around their school.

(i) List two reasons which made it necessary for them to carry out a pre-visit.

- (ii) Identify two methods they used to present their data.
- (iii) Name any two types of volcanic rocks they may have identified in their study.

#### 9. (a)

- (i) What is river regime?
- (ii) Using a well-labeled diagram describe the long profile of a river.
- (b)
- (i) List four types of river flow.
- (ii) Describe four methods by which a river transports its load.
- (c) Using a diagram, describe the trellis pattern of drainage.

(d) Form three students of Ndivisi Girls School intend to carry out a field study on a major river near their school.

- (i) Give one reason why they would need a work-schedule.
- (ii) State two positive influences which the river has on the people living in the area of study.

#### <u>10. (a)</u>

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- (ii) Name two inorganic components of soil.
- (b) Describe the following processes of soil formation.
- (i) Organic accumulation.
- (ii) Eluviation.

(c)

- (i) Differentiate between soil profile and soil catena.
- (ii) Using a well-labeled diagram, show a simple soil profile of a mature soil.
- (d) (i) What is 'soil degeneration'?
- (ii) State five methods used to conserve soil in Kenya.

(e) Students of Sichei Friends School plan to carry out a field study on soil within the school vicinity.

- (i) State any two objectives for their field study.
- (ii) Name one tool they may carry along on their field work.