INSTRUCTIONS TO CANDIDATES:

(a) This paper has two sections A and B.

(b) Answer ALL questions in Section A. In section B answer question 6 and any other two questions.

(c) All answers must be written in the answer booklet provided.

(d) Candidates to check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.
SECTION A
Answer ALL Questions.

1. (a) Apart from causing seasons. State two other effects of revolution of the earth round the sun. (2mks)

(b) The diagram below shows internal structure of the earth. Name the parts marked X, Y, Z. (3mks)

![Diagram of earth's structure]

X:……………………………………………………………………………………………
Y:…………………………………………………………………………………………
Z:……………………………………………………………………………………………

2. (a) The table below shows some examples of metamorphic rocks. Complete the table. (3mks)

<table>
<thead>
<tr>
<th>Original Rock</th>
<th>Metamorphic Rock</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marble</td>
<td></td>
</tr>
<tr>
<td>Augite</td>
<td></td>
</tr>
<tr>
<td>Schist</td>
<td></td>
</tr>
</tbody>
</table>

(b) Give three examples of rocks classified as intrusive plutonic rocks. (3mks)

3. Using one diagram, draw and label the following features of vulcanicity: (3mks)
   (i) Dyke
   (ii) Batholith
   (iii) Laccolith

(b) Name two lava plateaus in Kenya. (2mks)

4. (a) State three characteristics of coniferous forest. (3mks)

(b) Give the names of temperate grasslands in the following contours: (2mks)
   (i) U.S.A.
   (ii) Eurasia
   (iii) Australia
   (iv) South Africa
5. The diagram **below** shows a limestone cave. Describe how feature X forms. (4mks)

![Diagram of limestone cave with Limestone rocks and Impermeable rocks]

SECTION B
Answer question 6 and any other two questions in this section

6. (a) Study the map of Kitale (1:50,000) (sheet 75/3) provided and answer the following questions:

(i) What was magnetic variation when the map was prepared in 1960? (1mk)
(ii) Identify **two** counties represented by the area covered by the map. (2mks)

(b) (i) Give the latitudinal extend of the area covered by the map. (2mks)
(ii) Give the six figure, grid reference of trigonometric station 7586 west of Dafina Estate. (2mks)

(c) (i) Find the distance of All weather loose surface road C641 from the junction in grid square 2413 to the junction in grid square 3121. Give your answer in km. (2mks)
(ii) What is the area of Kitale Municipality in km\(^2\)? (2mks)

(e) Draw a rectangle 6cm by 4cm to represent the area enclosed by easting 34 and 40 and Northing 24 and 28. On the rectangle show:

(i) Saiwa swamp (1mk)
(ii) Dry weather road (1mk)
(iii) River Kipolet (1mk)
(iv) Kipsoen Forest (1mk)

(f) (i) Citing evidence, give **three** economic activities carried out in the area covered by the map. (3mks)
(ii) Describe the relief of the area covered by the map. (5mks)

7. (a) Give **three** processes through which wind erodes the earth surface. (3mks)

(b) Describe how the following features are formed:

(i) Rock pedestal. (5mks)
(ii) Barchan. (4mks)
(iii) Mesa and Butes (4mks)
(c) Students carried out field study on desert landforms.
   (i) State three objectives of their study. (3mks)
   (ii) Give two methods they used to collect data. (2mks)
   (iii) State four significance of desert landforms to human activities. (4mks)

8. (a) The diagram below represents part of the earth affected by faulting. Name the sections marked A, B, C and D.

(b) (i) With aid of labeled diagrams describe how a Rift Valley is formed by compressional forces. (6mks)
   (ii) Name four features associated with Gregory Rift Valley. (4mks)

(c) Name three Horst Mountains in East Africa. (3mks)

(d) Explain four effects of faulting to physical environment. (8mks)

9. (a) Differentiate between Mass Wasting and Mass Movement. (2mks)
(b) Explain three factors influencing Mass Wasting. (6mks)
(c) (i) State five causes of soil creep. (5mks)
   (ii) Explain how the following processes of mass wasting occur.
       (i) Slumping (3mks)
       (ii) Rock fall (3mks)

(d) Students are planning to carry out field study of an area affected by mass wasting.
   (i) How did they prepare for the field study? (3mks)
   (ii) Identify three problems they might have encountered? (3mks)
10. (a) The diagram **below** shows a local wind. Use it to answer questions that follow.

(i) Name the type of local wind. (1mk)
(ii) Explain how the breeze develops. (3mks)

(b) Describe the formation of relief rainfall. (6mks)

(c) World map showing climatic regions. Use it to answer questions that follow:

(i) Identify climatic regions marked U, V and W. (3mks)
(ii) Describe **three** characteristics of climate marked X. (6mks)

(d) (i) What is Micro climate? (2mks)
(ii) State **four** effects of global warming on human activities. (4mks)