Instructions to candidates

(a) This paper has **TWO** sections: A and B.
(b) Answer **ALL** the questions in section A.
(c) Answer question **SIX (6)** and any other **TWO** questions from section B.
(d) All answers **must** be written in the answer booklets provided.
(e) Candidate should check the question paper to ascertain that **ALL** the pages are printed as indicated and that no question is missing.
SECTION A:
Answer ALL questions in this section

1. (a) Name two members of the solar system other than the planets. (2 marks)
   (b) Give three characteristics of Sima. (3 marks)

2. (a) State any three features one may identify on a rejuvenated river. (3 marks)
   (b) Highlight two causes of river rejuvenation. (2 marks)

3. (a) What is the cause of glacial recession. (1 mark)
   (b) In what three ways are glaciated landforms of economic value. (3 marks)

4. The table below shows climatic data of a station in Kenya. Use it to answer the questions that follow.

<table>
<thead>
<tr>
<th>Month</th>
<th>Temperature °C</th>
<th>Rainfall in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>29</td>
<td>10</td>
</tr>
<tr>
<td>F</td>
<td>28</td>
<td>9</td>
</tr>
<tr>
<td>M</td>
<td>30</td>
<td>22</td>
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<td>A</td>
<td>30</td>
<td>48</td>
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<td>M</td>
<td>29</td>
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<td>J</td>
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<td>O</td>
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<td>5</td>
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<tr>
<td>N</td>
<td>30</td>
<td>18</td>
</tr>
<tr>
<td>D</td>
<td>28</td>
<td>11</td>
</tr>
</tbody>
</table>

(a) What is the annual range of temperature at the station. (1 mark)
(b) Calculate the annual rainfall for the station. (1 mark)
(c) Give two reasons why the Tundra region has scanty vegetation. (2 marks)
(d) Give two characteristics of inter-tropical convergence zone (ITCZ). (2 marks)

5. (a) What are destructive waves. (1 mark)
   (b) Name two resultant features of wave erosion. (2 marks)
   (c) Name two types of coast. (2 marks)

SECTION B
Answer questions 6 and ANY other 2 questions in this section

6. Study the map of Kitale (1:50,000) sheet 75/3 provided and answer the following questions.
   (a) (i) Give the longitudinal extent of the area covered by the map. (2 marks)
   (ii) What was the magnetic variation in the area when the map was drawn. (2 marks)
   (iii) What is the direction of the air photo principal point in grid square 2931 from the air photo principal point in grid square 3426. (2 marks)
   (iv) Name the two districts represented in this map extract. (2 marks)

   (b) Draw a rectangle 10cm by 15cm to represent the area in the map extract bounded by eastings 40 and 50 and northings 11 and 26. (2 marks)
   In it draw and label.
   (i) An all weather road loose surface. (1 mark)
   (ii) A district boundary. (1 mark)
   (iii) A trigonometrical station. (1 mark)
   (iv) A forest. (1 mark)
(c) Describe the relief of the area covered by the map. (5 marks)
(d) Citing evidence from the map, identify three factors which have influenced the distribution of settlement in the area represented by the map. (6 marks)

7. (a) (i) Define the term vulcanism. (2 marks)
     (ii) State three types of lava associated with volcanic activities. (3 marks)
(b) (i) Identify four types of intrusive igneous landforms. (4 marks)
     (ii) With aid of diagrams, describe how a crater lake is formed by violent disintegration. (6 marks)
(c) Explain three economic significance of volcanic activities. (6 marks)
(d) You recently carried out a field study of an area which has been affected by vulcanicity.
     (i) Give two ways in which you prepared for the field study. (2 marks)
     (ii) Outline two factors that made it difficult for you to collect and acculate data during the field study. (2 marks)

8. Use the map of Africa provided below and answer questions that follow.

   ![Map of Africa]

(a) Name the climatic regions marked 1 - 4. (4 marks)
(b) State and explain any four characteristics of the climatic region marked 1. (8 marks)
(c) Explain four effects of climatic change. (8 marks)
(d) You intend to carry out a field study near your school on climate.
     (i) Identify three reasons why it is necessary to carry out a reconnaissance. (3 marks)
     (ii) Cite two reasons why a map of the location is needed. (2 marks)

9. (a) (i) Identify the three main categories of vegetation. (3 marks)
     (ii) Describe three physiographic factors that influence vegetation distribution. (6 marks)
The diagram below represents vegetation succession on a mountain slope.

(i) Name the types of vegetation marked P, Q, R and S. (4 marks)
(ii) Explain the characteristics of coniferous (boreal) forests. (6 marks)

(c) Explain the three factors that have led to the decline of the natural grasslands in Kenya. (6 marks)

10. (a) (i) What is a desert. (2 marks)
(ii) State three factors which contribute to the development of deserts. (3 marks)
(iii) Describe two processes of wind transportation in the desert. (4 marks)

(b) Identify the features below and describe how each of them is formed.
(i) (5 marks)
(ii) (5 marks)

(c) Explain three positive effects of desert features to the human environment. (6 marks)