Instructions to candidates

(a) *This paper contains two sections: A and B.*

(b) *Answer all the questions in section A and B.*

(c) *All answers must be written in the foolscaps provided.*

(d) *This paper consists of 3 printed pages.*

(e) *Students should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.*
SECTION A (25 MARKS)

Answer ALL questions in this section.

1. a) State two forces that shape the surface of the earth. (2 marks)
   b) State three characteristics of the crust. (3 marks)
2. a) State two traditional methods of forecasting weather. (2 marks)
   b) Mention three factors that hinder weather forecasting. (3 marks)
3. Use the diagram below of a mountain vegetation zone of a mountain in Kenya to answer the following questions.

   a) Name vegetation zones A, B, and D. (3 marks)
   b) Explain three importance of vegetation in zone C. (2 marks)
4. a) Give three components of the solar system. (3 marks)
   b) State two theories of the origin of the solar system. (2 marks)
5. The table below shows temperature and rainfall figures for Transtein, Germany. Use it to answer the questions that follow.

<table>
<thead>
<tr>
<th>Months</th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>J</th>
<th>A</th>
<th>S</th>
<th>O</th>
<th>N</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temps in °C</td>
<td>-4</td>
<td>-2</td>
<td>2</td>
<td>6</td>
<td>11</td>
<td>15</td>
<td>16</td>
<td>16</td>
<td>12</td>
<td>7</td>
<td>2</td>
<td>-2</td>
</tr>
<tr>
<td>Rainfall in mm</td>
<td>84</td>
<td>78</td>
<td>97</td>
<td>114</td>
<td>143</td>
<td>181</td>
<td>188</td>
<td>167</td>
<td>150</td>
<td>96</td>
<td>85</td>
<td>96</td>
</tr>
</tbody>
</table>

   a) Calculate the annual range of temperature. (2 marks)
   b) Describe the climate of the above station. (3 marks)

SECTION B (75 MARKS)

Answer all questions in this section.

6. a) (i) Define the term faulting. (2 marks)
   (ii) Mention three types of features associated with faulting. (3 marks)
   (iii) With the help of a diagram explain the formation of the rift valley through the tension process. Suppose you were to carry out a field study on the Rift Valley. (7 marks)
   b) (i) State any two objectives of the study. (2 marks)
(ii) State three importance of studying faulting through field work. (3 marks)

(iii) Explain the significance of faulting to human activities. (8 marks)

7. (a) (i) Name three types of rocks according to their mode of formation. (3 marks)

(ii) Mention three areas where sedimentary rocks are found in Kenya. (3 marks)

(b) (i) State four characteristics of sedimentary rocks. (4 marks)

(ii) Describe the formation of mechanically formed sedimentary rocks. (5 marks)

(c) Explain five significance of rocks to the economy of Kenya. (10 marks)

8. Explain how the following factors influence the distribution of vegetation.

(i) Climate (2 marks)

(ii) Human beings (2 marks)

(b) The map below shows some vegetation zones of Kenya. Use it to answer question (i).

(i) Name the vegetation zone marked X and Y. (2 marks)

(ii) Give two uses of Savannah vegetation. (2 marks)

(iii) Describe the characteristics of Mediterranean type of vegetation. (5 marks)

(c) Explain three ways in which desert vegetation adapts to climatic conditions. (6 marks)

(d) You are planning to carry out a field study of the vegetation within the local environment.

(i) State three preparations you will make for the field study. (3 marks)
(ii) How will you identify the different types of vegetation? (3 marks)