1. Draw a sketch map of Africa and on it mark and name:
   (i) areas with over 500 people per km$^2$,
   (ii) areas between 100 and 500 people per km$^2$,
   (iii) areas with less than 100 people per km$^2$,

b) Describe the factors which have led to a low population density in any one country in Africa.

c) Explain the problems of having a low population density in any one country in Africa.

d) Outline the measures being taken to solve the problem of a low population density in the country chosen in c) above.

2. Study the table below showing forested areas in selected African countries (2005) and answer the questions that follow:

<table>
<thead>
<tr>
<th>Country</th>
<th>Area under Forest km$^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>23,000</td>
</tr>
<tr>
<td>Botswana</td>
<td>119,000</td>
</tr>
<tr>
<td>Gabon</td>
<td>218,000</td>
</tr>
<tr>
<td>Swaziland</td>
<td>5,000</td>
</tr>
<tr>
<td>Cote d’Evoir</td>
<td>104,000</td>
</tr>
</tbody>
</table>

(a) Draw a bar graph to show the information given in the table above.

(b) Identify the country with the:
   (i) smallest
   (ii) largest

(c) (i) Mention any two forest products obtained from the country identified in b(ii) above.
   (ii) Describe the factors that have favoured the growth of forests in the country chosen in b(ii) above.

(d) Outline the problems faced by the exploitation of forests in any one country given in the table above.
REGION: RHINELANDS

1. Study figure 3: provided and answer the questions that follow.

MAP OF SWITZERLAND

(a) Name the:
   (i) Towns; F, G and H
   (ii) Lakes: I, J and K
(b) (i) Why has Switzerland had to develop an efficient railway network?  (06 marks)
   (ii) Name the three modes of transport used in Switzerland.  (03 marks)
(c) (i) Outline the problems facing the Swiss transport system.  (05 marks)
   (ii) Explain how the problems outlined in c(i) above are being solved.  (05 marks)
2. Study figure 4: of the Rhur industrial Region and answer the questions that follow.

**Figure 4: Major industrial centres in Rhur Region.**

(a) Name:-
   (i) Rivers P and Q
   (ii) Canal S
   (iii) Industrial centres U and V
   (iv) Two industries in Essen. (07 marks)

(a) Explain the factors that favoured the development of the Rhur into a large industrial region. (08 marks)

(b) Outline the:-
   (i) Problems facing the Rhur industrial region. (05 marks)
   (ii) Steps being taken to solve the problems outlined in (c)(i) above. (05 marks)
3. Study the Table IV below showing land use types in the Netherlands and answer questions that follow.

**Table IV: Netherlands land use types.**

<table>
<thead>
<tr>
<th>Land use types</th>
<th>Total land Area in Hectares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arable farming</td>
<td>777,000</td>
</tr>
<tr>
<td>Horticulture</td>
<td>140,000</td>
</tr>
<tr>
<td>Pasture</td>
<td>1,505,000</td>
</tr>
<tr>
<td>Wood and wasteland</td>
<td>525,000</td>
</tr>
<tr>
<td>Others</td>
<td>560,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,500,000</strong></td>
</tr>
</tbody>
</table>

(a) Draw a bar graph to show land use types in the Netherlands.  
(b) State the land use types which occupies: -  
   (i) Largest area  
   (ii) Smallest area  
(c) (i) Calculate the percentage of land under farmland.  
   (ii) Explain the factors that have influenced the development of agriculture in the Netherlands.  
(d) Outline the:  
   (i) Problems facing the agricultural sector in the Netherlands.  
   (ii) Steps being taken to solve the problems in (d) (i) above.

**S.4 ENGLISH (P112/1)**

1. You are the sports commentator at a match between K.C.C and Express at Mandela Stadium. Write a live commentary of the match for Radio Uganda.

**SECTION B  (Choose two)**

2. Write a story ending "...............I have never seen a day lie, that one!"

3. Describe how a friendly joke led to a serious fight between two people.

4. Write a significant experience in your life that has made you what you are now.
S.4 Chemistry

1. a) With the help of a diagram describe how Sulphur dioxide gas is prepared and collected from copper turnings.
b) State the conditions for the reaction.
c) Write the equation for the reaction
d) State three uses of Sulphur dioxide.

2. Sulphur dioxide acts as an oxidizing agent
   a) Define the term oxidizing agent
   b) State what is observed and write an equation when Sulphur dioxide reacts with
      (i) Burning magnesium ribbon
      (ii) Hydrogen sulphide gas

3. Sulphur dioxide acts as a reducing agent
   a) Define the term reducing agent
   b) State what is observed and write equation when Sulphur dioxide solution reacts with
      (i) flower petals of hibiscus flower
      (ii) concentrated nitric acid
      (iii) iron(III) chloride
      (iv) acidified potassium manganite(VII) solution
      (v) acidified potassium dichromate(VI) solution
      (vi) bromine water

4. a) Describe briefly the contact process for the industrial manufacture of sulphuric acid. Include equations
   b) Write equations of dilute sulphuric acid with the following;
      (i) magnesium ribbon
      (ii) copper(II) oxide
      (iii) sodium carbonate
      (iv) potassium hydroxide
c) State what is observed and write equations when the following substances react with concentrated sulphuric acid.

   (i) Glucose
   (ii) Hydrated copper(II) sulphate
   (iii) Ethanol

5. Name a reagent, state the observation and write ionic equations to show how a sulphate ions can be distinguished from sulphite ions.

6. a) Describe how a sample of ammonia gas can be prepared and draw a well labelled diagram for the set-up of apparatus.
   b) State 3 uses of ammonia
   c) Describe how nitric acid can be prepared

**S.4 Agriculture**

1. a) Explain the benefits of co-operative societies to farmer in Uganda.
   b) Outline the problems faced by co-operative Societies in Uganda.

2. a) Differentiate between Risks and uncertainties in farming.
   b) Describe the various ways farmers can guard against risks and uncertainties