Chemistry

1a. Consider the following compounds:

MnO_2, $NaHCO_3$, Na_2CO_3, NH_4Cl and $Pb(NO_3)_2$

Select the compound(s) which;

(i) has a black colour

(ii) is a basic oxide:

(ii) sublimes on heating

(iv) dissolves in water to give a solution of pH less than 7.

 (b) State the colour of each of the following aqueous solutions:

(i) Calcium hydroxide;

(ii) Iron (III) trioxonitrate (V):

(ii) Copper (II) tetraoxosulphate (VI);

(iv) Potassium heptaoxodichromate (VI)

2. Consider the set-up:

(a) Identify by name : P, Q, R, S and T.

(b)(I) What gas is produced in the set-up illustrated above?

(II) Give one physical and one chemical property of the gas.

C(I) Name the method of collection of the gas.

(II) Give a reason for your answer in 2(b)(II) above.

(III) What is the function of R in the experimental set-up?

(IV) State one chemical test to identify the gas.

CRS

1a) Who is a friend?

1b) List 3 benefits of having good friends

1c) Discuss the following examples of friendship in the Bible

(I) David and Jonathan (1 Samuel 18:1-5)

(ii) Jesus, Mary and Martha (Luke 10:38-42)

Mathematics

1) Solve simultaneously:

a) $x - 2y = 4$
$2x + 5y = 17$

b) $q - 3r = -5$
$2r + 3q = -4$

2) Solve the inequalities and represent each answer on a number line.

a) $-3(x-2) < -2(x+3)$

b) $-6 \leqslant 4 - 2x < 5 - x$

Physics

1(a) Define momentum

(b) A ball of mass 0.5kg moving at 10m/s collides with another ball of equal mass at rest. If the two balls move off together after the impact, calculate their common velocity

2(a) Define machine

(b) A block and tackle system of 5 pulleys is used to raise a load of 500 N steadily through a height of 20 m. The work done against friction is then 2000 J. Calculate (i) the work done by the effort

(ii) the efficiency of the system

(iii) the effort applied

Book Keeping

1. What is a ledger

2. write short note on the various classes of a ledger

Further Mathematics

Page 85, Exercise 6, Number 4, 6 and 16.

Page 150, Exercise 9a, Number 1a, 1f, 9, 24 and 25.

Economics

1. What is economic system?

2a. What is capitalism?

2b. Outline four features of a capitalist economy.

3. What is centrally planned economy?

Visual Art SS1

On a white cardboard paper, draw and design a flower vest

Size: 35cm by 40cm

Medium: color pencil on paper

Visual Art

Produce a well covered collage from one of the following:

I.   Nature
II.   Figure
III.   Still- life

Size: 40cm by 60cm

Biology

1) Explain the following with examples

i) Parasitism

ii) Symbiosis

iii) Commensalism

iv) Predation

Commerce

1. Write short notes on the following:

(a) Authorized capital

(b). Issued capital

(c). Working capital

2. Outline four importance of working capital.

ICT

Write a mini project on the topic

'Concept of a Computer File'

Agricultural Science

Holiday Assignment 2nd term

1. Define plant disease

2. Mention five effect of diseases on crop production

3. Give one example of disease that affect the following crops

i. Cereal crop

ii. Legumes

iii. Beverages

English Language

Read the Summary passage on page 110 and answer the questions.

Literature in English

1.Read the Maya Angelou's 'Caged Bird' and state out the themes with detailed explanation.

2. Give a detailed analysis of the 'Caged Bird' using the poetic devices deployed.

Food and Nutrition

1.Explain egg and state the composition of egg.

2.Explain the nutritional value of egg.