

# **NATIONAL SCHOOLS PREMOCK**

**2023 SERIES 1 EXAMS**

**ALL SUBJECTS**

*The First Trial Joint Pre-mock Examinations for Select National Schools for the current KCSE 2023 Candidates in the Republic of Kenya.*

## **SUBJECTS COMPILED;**

*Mathematics, English, Kiswahili, Biology, Chemistry, Physics, CRE, Geography, History, Business Studies, Agriculture & Computer Studies.*

---

**SERIES 1**

---

*For Marking Schemes*

**Mr Isaboke 0746-222-000 / 0742-999-000**

**MWALIMU CONSULTANCY**

# NATIONAL SCHOOLS PREMOCK

**KCSE 2023 SERIES 1**

## **BIOLOGY**

**PAPER 1**

**TIME: 2 HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

231/1

## **BIOLOGY**

**PAPER 1**

**TIME: 2 HOURS**

### **INSTRUCTIONS TO CANDIDATES:**

- 1) Write your *name* and *index number* and *school* in the spaces provided above.
- 2) Sign and write *date* of the examination in the spaces provided above
- 3) Answer *all* the questions in section A and B

### **FOR EXAMINER'S USE ONLY:**

QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
1-29	80	

### **SECTION A (40MARKS)**

Answer all the questions in this section in the spaces provided.

1. State the functions of each of the following structures in a cell.

Golgi apparatus

(2mks)

.....

Cell sap

(2mks)

.....

2. Give **two** distinguishing characteristics of cervical vertebrae.

(2mks)

.....

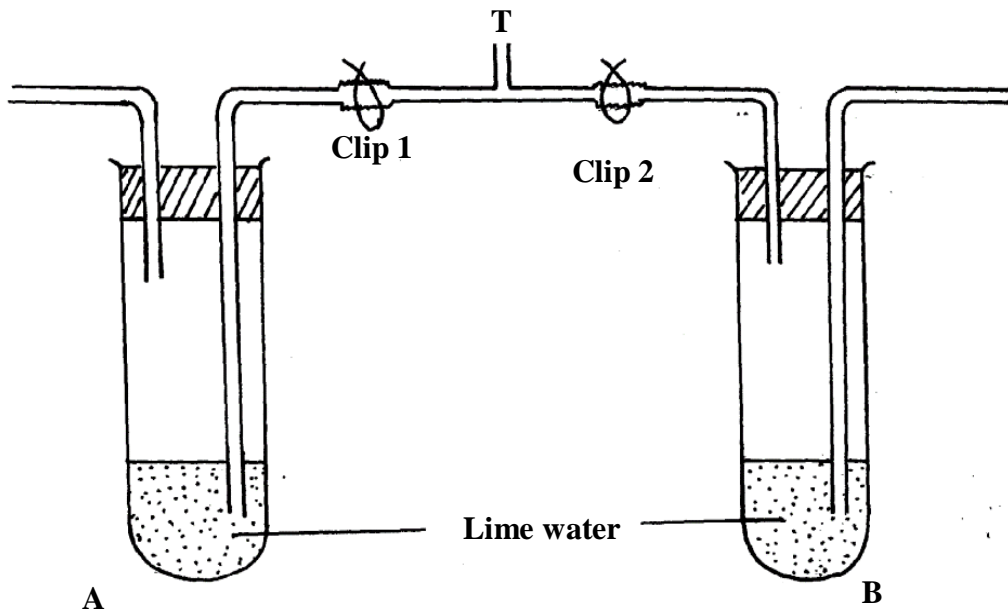
.....

3. (a) Name the carbon compound responsible for raising of the dough during baking of bread.

(1mk)

.....

(b) The diagram below represents an experiment set-up to determine a certain physiological aspect of man. Air was breathed in and out several times at tube labelled T.



(i) What was the aim of the experiment?

(1mk)

.....

.....

(ii) State the observations made on lime water in tubes A and B.

(2mks)

.....

.....

4. A child of blood group O is born to a woman of blood group A and a man of blood group B. What are the genotypes of the parents? (2mks)

Mother

.....

Father

.....

5. Name **three** parts of the nephron found in the cortex. (3mks)

.....

.....

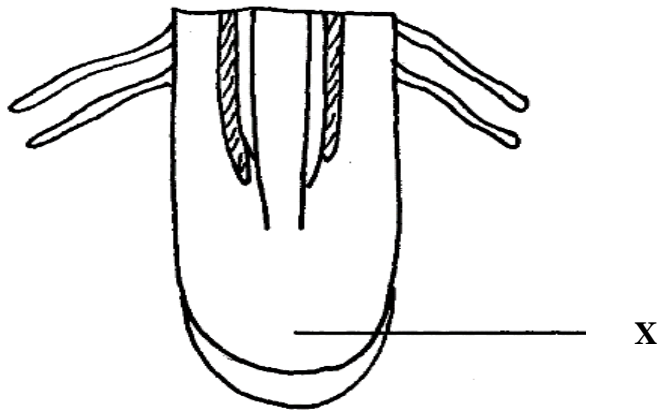
.....

6. State **two** symptoms of diabetes mellitus. (2mks)

.....

.....

7. The diagram below represents a longitudinal section of a plant.



State **three** characteristics of cells found at the part labelled X. (3mks)

.....

.....

.....

8. Name **three** classes of phylum chordate characterized by presence of scales. (1mk)

.....

.....

.....

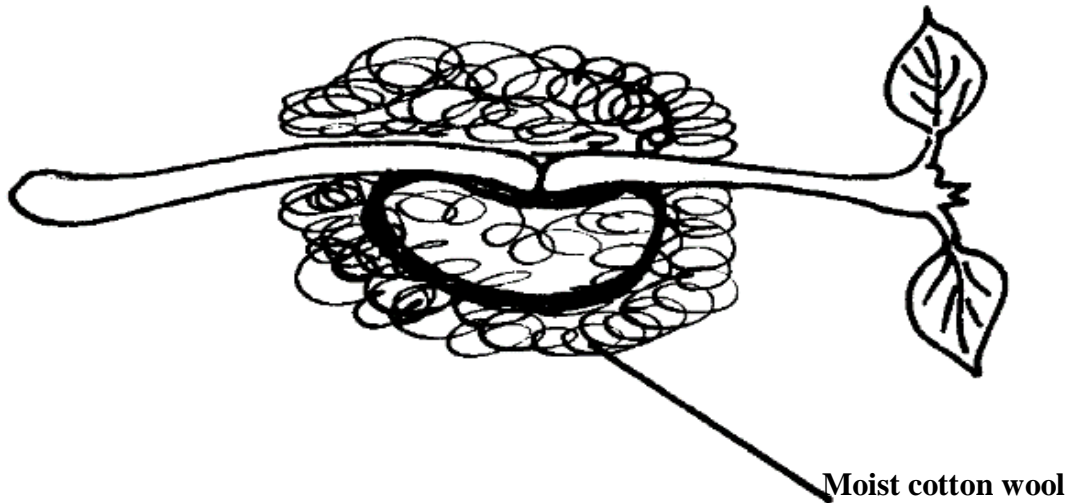
9. What is natural selection? (2mks)

.....  
.....

10. Name the structure on the bodies of arthropods responsible for the intermittent growth curve pattern. (1mk)

.....

11. The diagram below represents a seedling growing horizontally in a moist cotton wool.



Account for the results that would be observed on the radicle after 5 days of growth. (3mks)

.....  
.....  
.....

12. Give a reason for each of the following on a mammalian Red blood cell.

(a) Absence of the nucleus (1mk)

.....

(b) Biconcave shape (1mk)

.....

13. How is the pulp cavity adapted to its functions? (2mks)

.....  
.....  
.....

14. (a) Name the tissue in higher plants responsible for transport of manufactured foods. (1mk)

.....

(b) Give **two** importance of transpiration in plants. (2mks)

.....

.....

15. Distinguish between;

(a) Biomass and carrying capacity. (2mks)

.....

.....

.....

(b) Interspecific and intraspecific competitions. (2mks)

.....

.....

.....

16. Name **two** bacterial diseases controlled by boiling drinking water. (2mks)

.....

.....

17. State the function of nectarines in an insect pollinated flower. (2mks)

.....

.....

18. State **two** factors in a seed that causes seed dormancy. (2mks)

.....

.....

19. The equation below summarizes a reaction that occurs in a plant organ.



(a) Name the pigment A and product X. (2mks)

Pigment A

.....

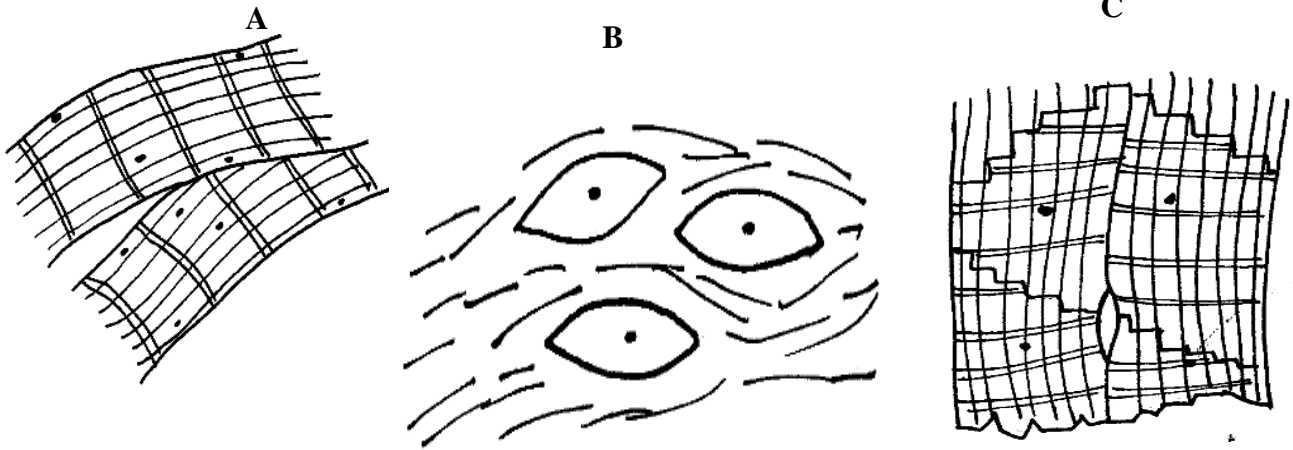
Product X

.....

(b) Name the organelle in plants where the above reaction occurs. (1mk)

.....

20. The diagrams below represent three types of muscles found on a mammalian body.



Name the location of each of the three types of muscles on the body. (3mks)

A.....

B.....

C.....

21. Give a reason why herbaceous plants remain upright. (2mks)

.....  
.....

22. (a) State the significance of emulsification of fats in the bodies of human beings. (2mks)

.....  
.....  
.....

(b) Name the structure in the body of a mammal that stores bile. (1mk)

.....  
.....

23. State two functions of a pollen tube. (2mks)

.....  
.....

24. The table below shows relative rates of transpiration in three different trees growing under similar conditions.

Tree	Relative rate of transpiration
A	195
B	20
C	70

(a) State the most likely habitat for plant B. (1mk)

.....

(b) State the structural adaptations of the stomata on the leaves of plant B. (2mks)

.....

.....

25. Name two hormones responsible for regulation of blood sugar. (2mks)

.....

.....

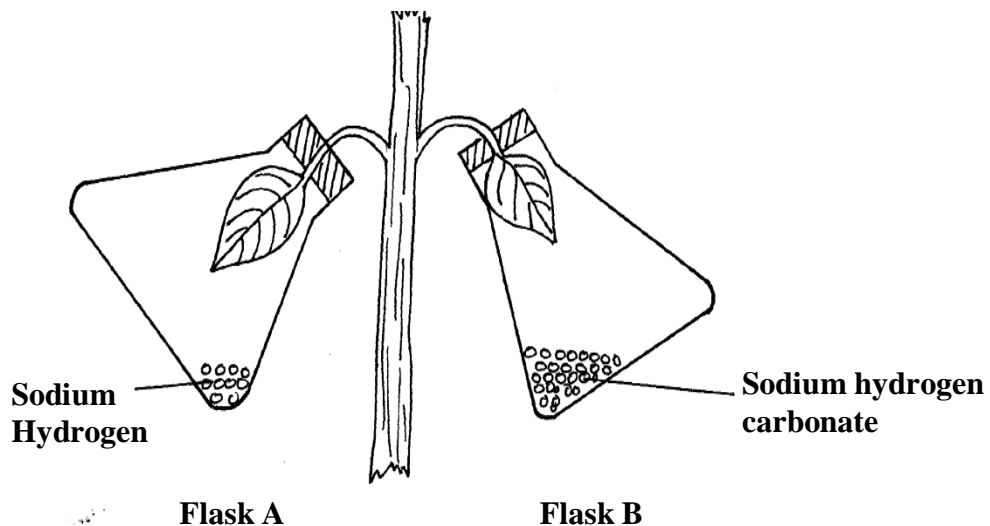
26. Account for the decrease in dry weight of endosperm of a cereal during germination. (2mks)

.....

.....

.....

27. A healthy plant was kept in dark for 24 hours. Two of its leaves were enclosed in glass jars as shown in the diagram below. The plants were then exposed to light for shows.



(i) Leaves in flask A and B were tested for a food substance. Name the food substance tested for in each of the flasks. (1mk)

.....



(ii) What were the results of the test started in (i) above. (2mks)

Flask A.....

Flask B.....

28. Name two main support tissues in woody plants. (2mks)

.....  
.....

29. (a) State two functions of a synovial fluid at a movable joint. (2mks)

.....  
.....

(b) Name the structure at a movable joint responsible for secretion of synovial fluid. (1mk)

.....

30. State two advantages of hybrid vigour. (2mks)

.....  
.....

31. How is ascaris lumbricoides adapted to its parasitic mode of life? (2mks)

.....  
.....  
.....

32. (a) At what stage of meiosis does crossing over take place. (1mk)

.....

(b) What is the importance of crossing-over? (1mk)

.....  
.....

33. Explain the functions of the ear drum. (2mks)

.....  
.....  
.....

# NATIONAL SCHOOLS PREMOCK

**KCSE 2023 SERIES 1**

## **BIOLOGY**

**PAPER 2**

**TIME: 2 HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

**231/2**

## **BIOLOGY**

**PAPER 2**

**TIME: 2 HOURS**

### **INSTRUCTIONS TO CANDIDATES:**

- 1) Write *your name and index number* in the spaces provided.
- 2) Answer *all* the questions in Section A in the spaces provided.
- 3) In section *B* answer questions 6 (*compulsory*) and either question 7 or 8 in the spaces provided

### **FOR EXAMINER'S USE ONLY:**

<b>SECTION</b>	<b>QUESTIONS</b>	<b>MAXIMUM SCORE</b>	<b>CANDIDATES SCORE</b>
<b>A</b>	1	8	
	2	8	
	3	8	
	4	8	
	5	8	
<b>B</b>	6	20	
	7	20	
	8	20	
	<b>TOTAL</b>	<b>80</b>	

**SECTION A (40MARKS)**

**Answer all the questions in this section in the spaces provided.**

1. In human beings the phenotypes and genotypes with respect to the condition of sickle anaemia are as follows

Phenotype	Genotype
Unaffected	SS
Sickle cell trait	Ss
Sickle cell anaemia	ss

a) Carry out a genetic cross to predict the outcome of a man and a woman with the sickle cell trait. (4mks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

b) What are the phenotypic and genotypic ratios. (2mks)

.....

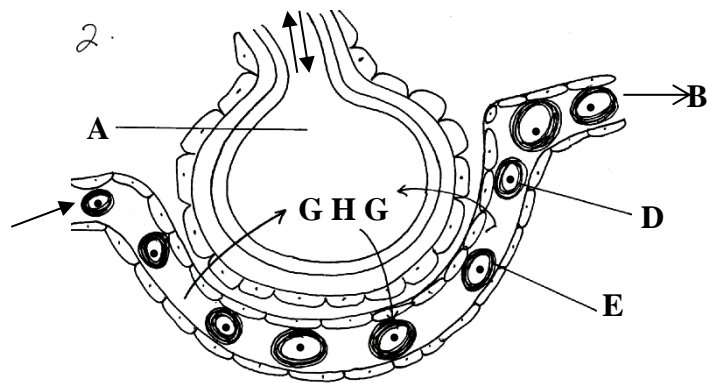
.....

c) Name the **two** possible sets of chromosomes that can be found in a normal cell. (2mks)

.....

.....

2. The diagram below represents a unit of gaseous exchange in man. Study it carefully and answer the questions that follow.



a) Name the blood vessel that brings blood to the lungs and the vessel which takes blood away from the lungs. (2mks)

.....

b) Name the structure above. (1mk)

.....

c) Label A and E. (2mks)

A.....

E.....

d) In what form is carbon (IV) oxide transported in structure labeled E. (1mk)

.....

e) Name the gas G. (1mk)

.....

3. Gastrin is a hormone produced by mammals.

(a) (i) Where is the hormone produced? (1mk)

.....

.....

(ii) What is the function of gastrin? (1mk)

.....

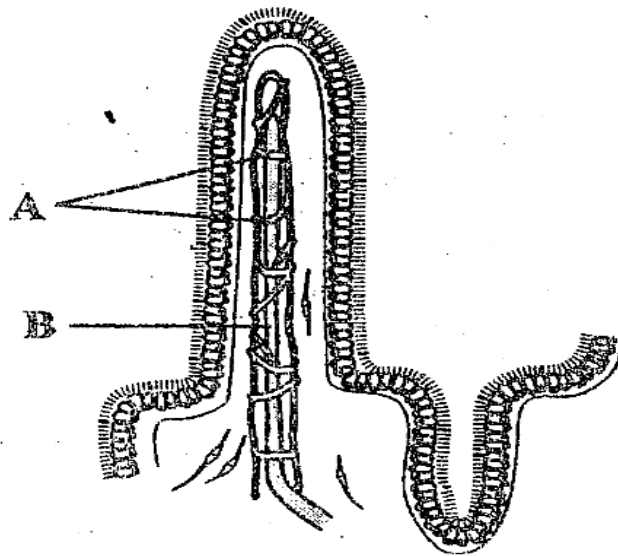
.....

(b) What stimulates the production of gastrin. (1mk)

.....

.....

(c) The diagram below shows part of the human intestine.



(i) Identify the parts labeled **A** and **B** (1mk)

**A**.....

**B**..... (1mk)

(ii) To which circulatory system does the part labeled **B** belong. (1mk)

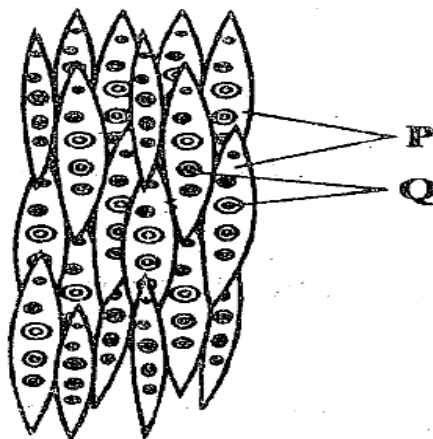
.....

**d)** State any **two** adaptations of the human large intestine to its function. (2mks)

.....

.....

4 The diagram below represents part of a xylem tissue.



a) (i) Name the parts labeled **P** and **Q** (2mks)

**P** .....

**Q** .....

(ii) Give the function of the part labeled P.

(1mks)

.....

b) State the function of the phloem tissue.

(1mk)

.....

.....

c) (i) State how the functioning of the phloem tissue is affected if the companion cell is destroyed.

(1mk)

.....

.....

(ii) Give a reason for your answer.

(1mk)

.....

.....

d) State any two structural differences between phloem and xylem tissues.

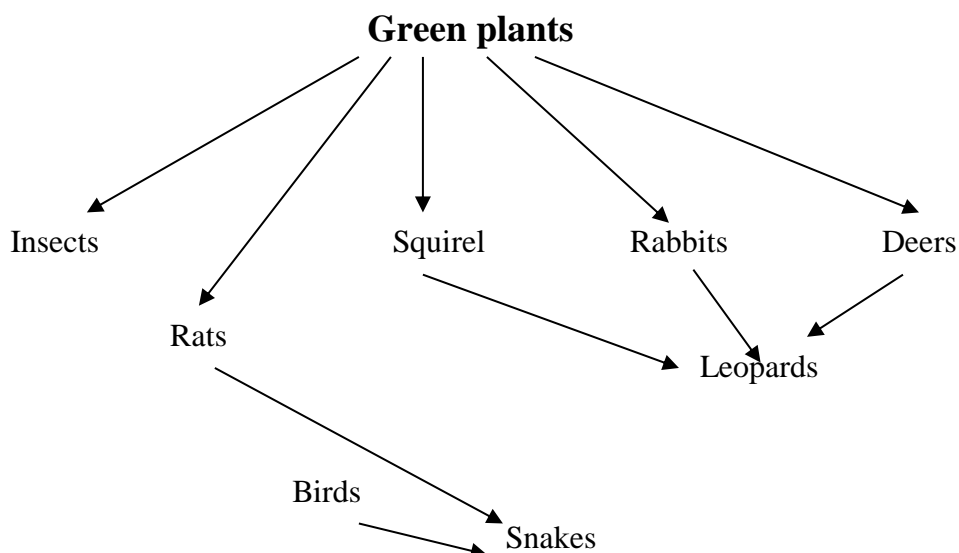
(2mks)

.....

.....

.....

5 The diagram below represents a food web from Lake Nakuru national park.



a) With a reason, identify the organism with the largest biomass. (2mks)

.....  
.....

b) From the food web isolate a food chain ending with snakes as tertiary consumer. (1mk)

.....  
.....

c) (i) Name any **two** organisms not shown in the food web but would be present in the ecosystem. (1mk)

.....

(ii) What is the role of the organisms stated in (i) above in the ecosystem. (2mks)

.....  
.....

d) From the food web, snakes and leopards feed on rabbits. What name is given to this kind of competition. (1mk)

.....

e) Name an organisms that may be both secondary and tertiary consumer. (1mk)

.....

## SECTION B (40MARKS)

*Answer questions 6(compulsory) and either questions 7 or 8*

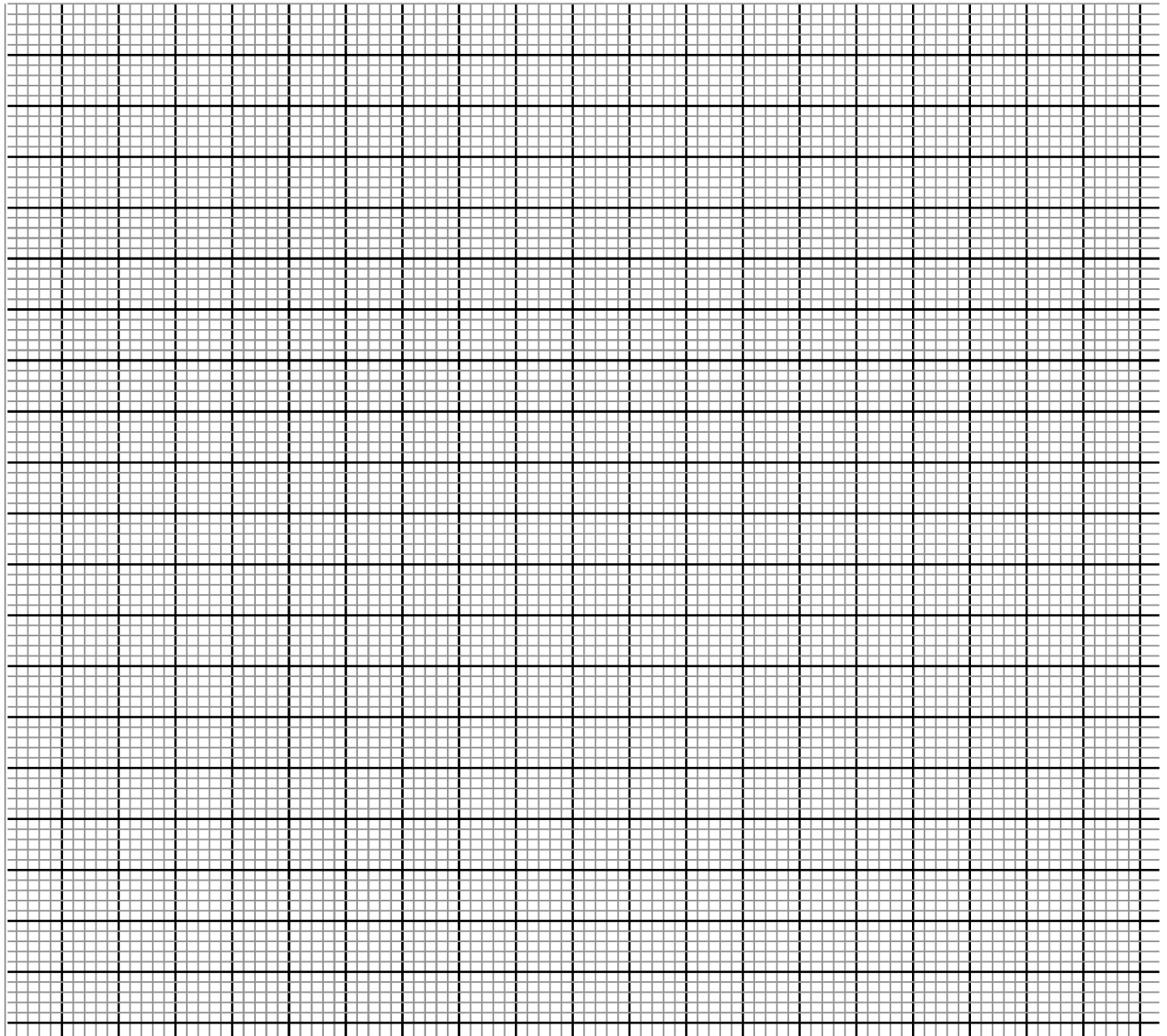
6. In an experiment to determine the effect of exercise on the concentration of lactic acid in blood, the following data was obtained. Study the data and use it to answer the questions that follow.

The lactic acid concentration was measured before, during and after the exercise.

Time minutes	0	10	20	25	30	40	50	60	70	80	90	100
Lactic acid conc. (arbitrary units)	0.5	0.5	5	13	12	8	6	4	3	2	1	0.9

a) Using a suitable scale, plot a graph of the concentration of lactic acid against time.

**(6mks)**



b) From the graph you have drawn determine

(i) The period of exercise . Explain.

**(2mks)**

.....  
.....  
.....

(ii) The time when oxygen debt occurred Explain.

**(2mks)**

.....  
.....  
.....



**(iii)** The duration it took to pay back the oxygen debt. Explain **(2mk)**

.....  
.....  
.....

**c)** On the same set of axes plot a hypothetical curve for oxygen intake during the experiment period of 90 minutes. **(2mks)**

**d)** Why does lactic acid level usually continue to rise in the blood after exercise ceases. **(2mks)**

.....  
.....  
.....

**e)** Suggest the **two** importance of anaerobic respiration to animals. **(2mks)**

.....  
.....

**d)** What is oxygen debt? **(2mks)**

.....  
.....

**7.** What is the role of the liver in the maintenance of a constant level of materials in the body. **(20mks)**

**8 (a)** What is organic evolution? **(2mks)**

**(b)** Distinguish between homologous and analogous structure. **(2mks)**

# NATIONAL SCHOOLS PREMOCK

**KCSE 2023 SERIES 1**

**BIOLOGY**

**CONFIDENTIAL**

**231/3**

**PAPER 3**

**PRACTICAL**

**INSTRUCTIONS TO SCHOOLS**

1. The information contained in this paper is to enable the head of school and the teacher in charge of Biology to make adequate preparations for this Biology Practical examination. **NO ONE ELSE** should have access to this paper or acquire knowledge of its contents. Great care **MUST** be taken to ensure that the information here does not reach the candidates either directly or indirectly.
2. The **Biology teacher** should note that it is his / her responsibility to ensure that each apparatus acquired for this examination agrees with the specifications given.
3. The question paper will not be opened in advance.

**Each candidate will require.**

1. *A specimen labeled R (Potato)*
2. *Pestle and motor*
3. *4 test tubes*
4. *8mls of hydrogen peroxide solution*
5. *Scalpel / surgical blade*
6. *10ml measuring cylinder*
7. *Means of heating*
8. *A beaker (50ml / 100ml beaker)*
9. *Wooden splint*
10. *15cm / 30cm long ruler*
11. *A test tube rack*

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

# BIOLOGY

### PAPER 3

TIME: 1¾ HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

### INSTRUCTIONS TO CANDIDATES

1. Write your name, school, index number, signature and date in the spaces provided above.
2. Answer ALL the questions in spaces provided.
3. You are required to spend the first 15 minutes of the 1¾ allowed for this paper reading the whole paper carefully before commencing your work.
4. Answers must be written in the spaces provided in the question paper.
5. Additional pages must not be inserted.

### FOR OFFICIAL USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1	12	
2	14	
3	14	
TOTAL SCORE	40	

1. You are provided with a potato labelled R. Cut 4 equal pieces of the potato about  $1\text{cm}^3$ .
- (a) Place one piece in a test-tube and label it A.
  - (b) Place a second piece onto a white tile or petri-dish and crush it into a paste using a motor or a glass rod. Put it into a second test-tube and label it B.
  - (c) To each of the two test tubes, add  $2\text{cm}^3$  of hydrogen peroxide.

**I. Record your observations. (2 marks)**

.....

.....

.....

- (d) Put a third piece of potato onto the white tile and crush it into a paste using the motor and the pestle. Put it into a third test tube and label it C.

Add some little water to the paste and boil it for about 10 minutes. Let it cool.

Add  $2\text{cm}^3$  of hydrogen peroxide.

**II. Record your observations. (1 mark)**

.....

.....

**III. Explain the results in (a) and (b) above. (4 marks)**

.....

.....

.....

.....

**IV. Crush the fourth piece of potato and put it into a test-tube, add  $2\text{cm}^3$  of hydrogen peroxide to it. Test the gas produced and record your observations. (1 mark)**

.....

.....

**V. Make a conclusion based on results in (d) above. (1 mark)**

.....

**VI. Write a word equation for the reaction that produces the gas. (1 mark)**

.....

.....

**VII. Where in your body does such a reaction occur? (1 mark)**

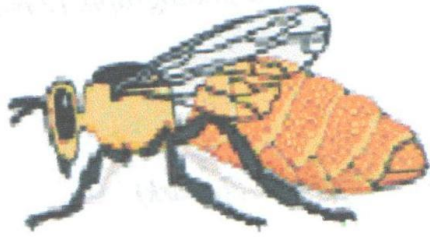
.....

**VIII. What is the importance of such a reaction in the body? (1 mark)**

.....

.....

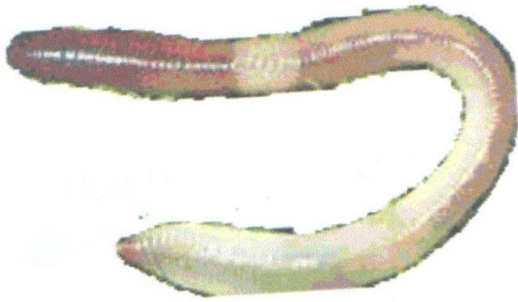
2. You are provided with specimens labelled A, B, C, D, E, F and G.



A



B



C



D



E



F



G

A dichotomous key shown below can be used to identify them

- 1. a) Jointed legs present ----- go to 2
- b) Jointed legs absent ----- go to 6
- 2. a) Three pairs of legs ----- go to 3
- b) More than three pairs of legs ----- go to 5
- 3. a) Wings present ----- go to 4
- b) Wings absent ----- Bedbug
- 4. a) Two pairs of wings ----- Batesian butterfly
- b) One pair of wings ----- Apis mellifera
- 5. a) Antennae present ----- Crab
- b) Antennae absent ----- Scorpion
- 6. a) Shell present ----- Snail
- b) Shell absent ----- go to 7
- 7. a) Prominent clitellum ----- Earthworm
- b) No clitellum visible ----- Leech

a) Use the dichotomous key to identify each of the animal specimens provided.

In each case show the sequence of steps that you followed to arrive at the identity of each specimen. (7 marks)

Specimen	Steps followed	Identity
A		
B		
C		
D		
E		
F		
G		

**b) i)** Name the class to which specimen D belongs. **(1 mark)**

.....

**ii)** Name **two** observable features used to classify specimen D in (b) (i) above. **(2 marks)**

.....

.....

**c) i)** Name the type of skeleton found in organism A. **(1 mark)**

.....

**ii)** Name **one** function of the skeleton found in c(i) above. **(1 mark)**

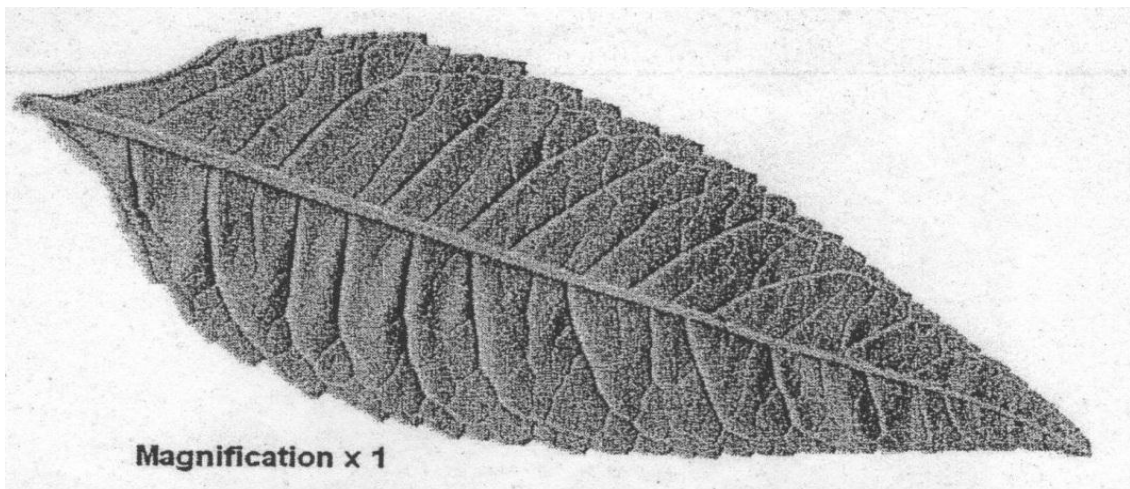
.....

**d)** State **two** economic importance of specimen A in an ecosystem. **(2 marks)**

.....

.....

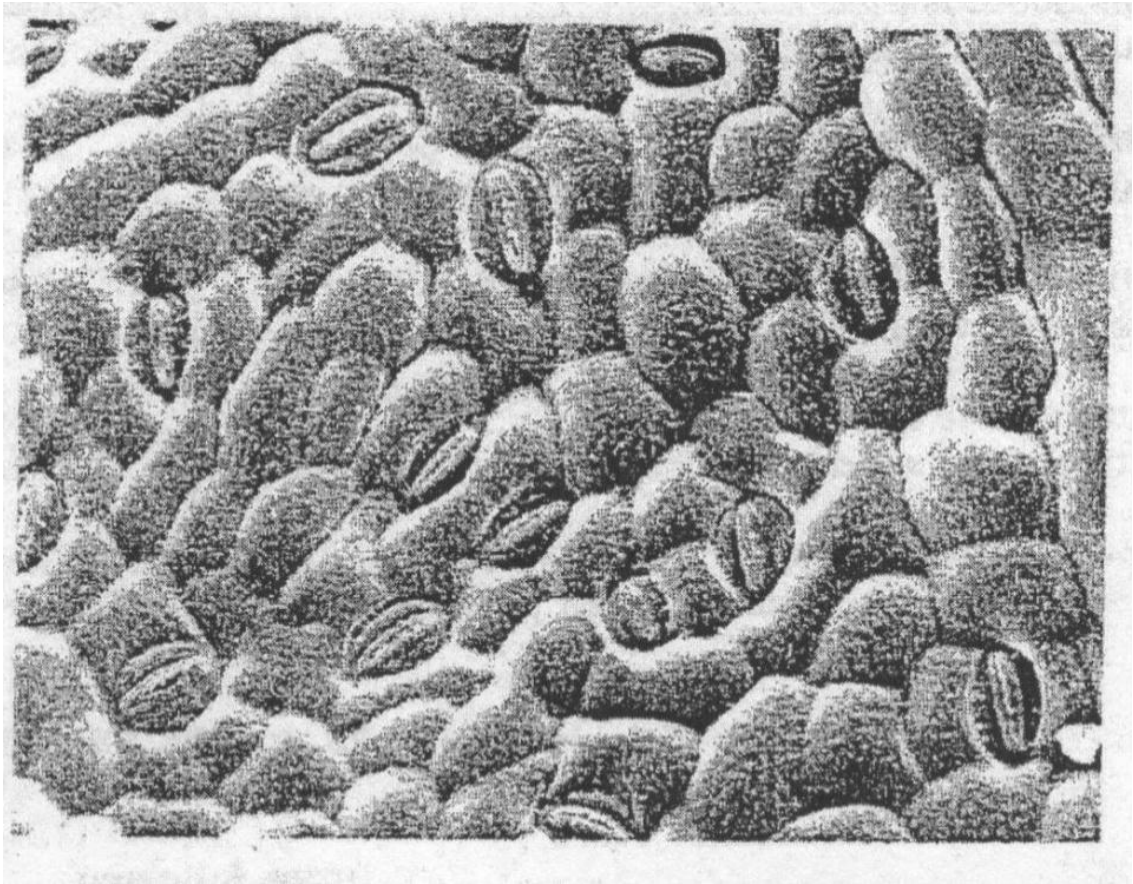
**3.** Figure 1.1 below shows the lower surface of a dicotyledonous leaf.



**a)** Make a labelled drawing of the leaf.

Your drawing should be of the same size as that shown in the figure 1.1 **(6 marks)**

b) Figure 1.2 below shows part of the lower surface of the leaf in figure 1.1 as seen under a light microscope.



- i) On the figure 1.2, label using lines two different types of cells. **(2 marks)**
  
- ii) On the figure 1.2 put a circle around two of the cells where chloroplasts are normally present. **(2 marks)**
  
- c) Suggest how you could determine the number of stomata present on one surface of a whole leaf. **(4 marks)**

.....

.....

.....

.....

.....

.....



# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

# CHEMISTRY

PAPER 1

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

233/1

# CHEMISTRY

PAPER 1

(THEORY)

TIME: 2 HOURS

### INSTRUCTIONS

1. Write your name and index no. in the spaces provided above.
2. Sign and write the date of examination in the space provided above.
3. Answer **ALL** the questions in the spaces provided.
4. Mathematical tables and silent electronic calculators may be used.
5. All working **MUST** be clearly shown where necessary.

### FOR EXAMINER'S USE ONLY

QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
1 – 29	80 marks	

1. The table below shows the pH values of some solutions.

Solutions	J	K	L	M	N
pH	6	13	2	10	7

a) Which solution is likely to be:

i) Potassium hydroxide. (1 mark)

.....

ii) Lemon juice. (1 mark)

.....

b) Explain why a solution of hydrogen chloride gas in methylbenzene was identified as N.

(1 mark)

.....

.....

c) Compare the electrical conductivity of solution J and L.

(1 mark)

.....

.....

2. Name the process that takes place when:

i) Sulphur is heated with natural rubber. (1 mark)

.....

ii) Fats or oils are hydrolysed using an alkali. (1 mark)

.....

3. a) Oxygen is obtained by fractional distillation of liquid air.

Name **two** other gases which are obtained from this process during distillation. (1 mark)

.....

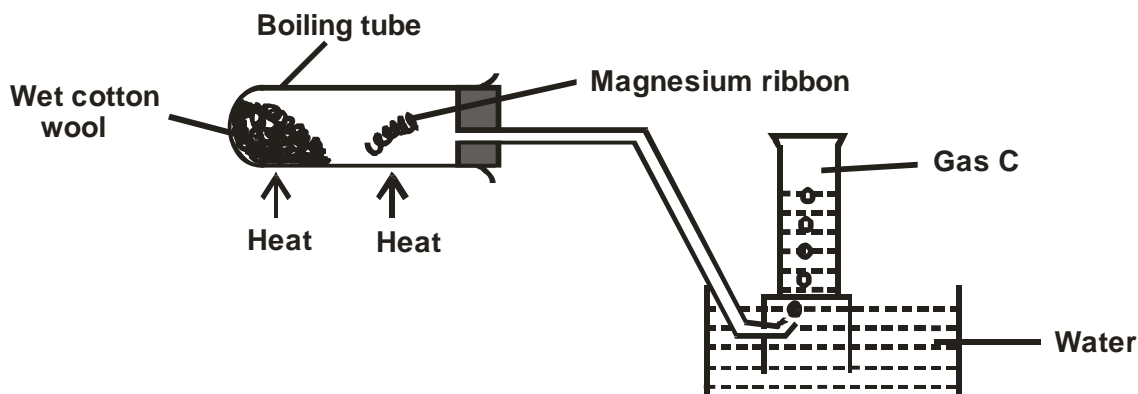
.....

b) Give **two** industrial uses of oxygen gas. (2 marks)

.....

.....

4. The diagram below represents the apparatus used to react steam with magnesium.



a) State an observation made in the boiling tube. (1 mark)

.....

b) Write an equation for the reaction that takes place in the boiling tube. (1 mark)

.....

.....

c) State and explain **one** precaution required before the heating is stopped. (2 marks)

.....

.....

5. State and explain how an increase in pressure will affect the equilibrium position in the following reactions.

a)  $2\text{SO}_2(\text{g}) + \text{O}_2(\text{g}) \rightleftharpoons 2\text{SO}_3(\text{g})$  (1 mark)

.....

.....

.....

b)  $\text{H}_2(\text{g}) + \text{Cl}_2(\text{g}) \rightleftharpoons 2\text{HCl}(\text{g})$  (1 mark)

.....

.....

.....

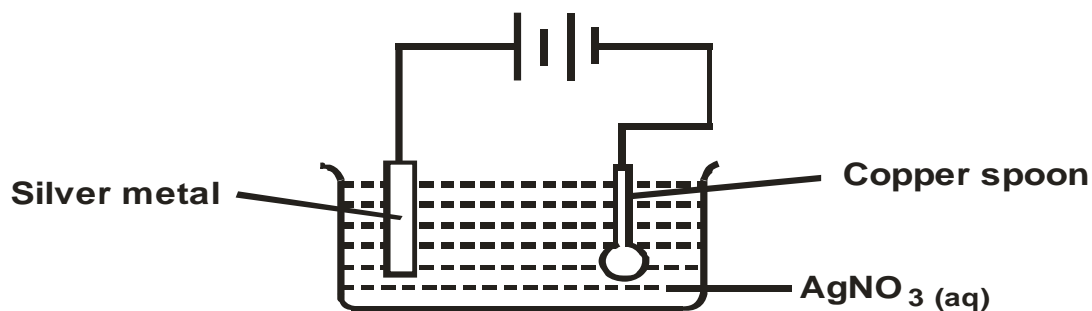
6. Given a mixture of sodium chloride, silver chloride and ammonium chloride, describe how each component can be obtained. (2 marks)

.....

.....

.....

7. A copper spoon was coated with silver metal as shown below.



i) Write an equation for the reaction that occurs at the copper spoon (cathode). (1 mark)

.....  
.....

ii) How many grams of silver would be deposited on the spoon in two hours using steady current of 0.03A? (IF = 96500C, Ag = 108.0) (3 marks)

.....  
.....  
.....  
.....

8. Using dots (•) and crosses (X) to represent electrons, show bonding in

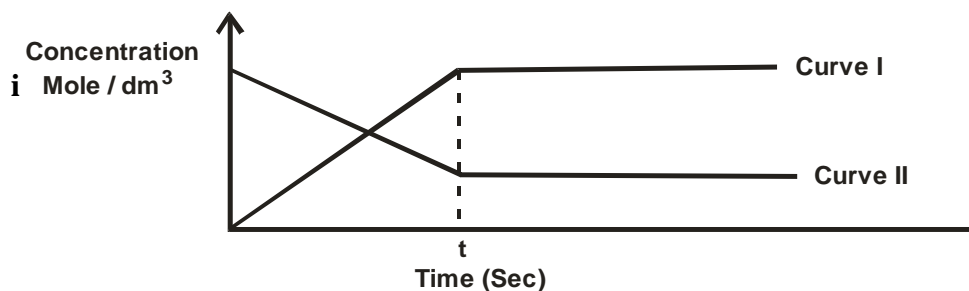
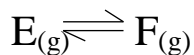
a) Ammonia molecule. (1 mark)

.....  
.....  
.....  
.....  
.....

b) Calcium oxide. (1 mark)

.....  
.....  
.....  
.....  
.....  
.....

9. The curve below represents the changes in the concentration of substances E and F with time in the equation.



a) Which curve represents the changes in the concentration of substance F? Give a reason.

(2 marks)

.....  
 .....

b) Give a reason for the shapes of the curves after time (t) seconds. (1 mark)

.....  
 .....

10. The following two tests were carried out on chlorine water contained in two test-tubes.

a) A piece of blue flower was dropped into the first test-tube. Explain why the flower bleached. (2 marks)

.....  
 .....

b) The second test-tube was corked and exposed to sunlight. After a few days, it was found to contain a gas that rekindled a glowing splint.

Write an equation for the reaction which produced the gas. (1 mark)

.....

11. State any **two** differences between a luminous and a non-luminous flame. (2 marks)

.....  
 .....

12. Potassium hydroxide of mass Yg was dissolved in distilled water to make 200cm<sup>3</sup> of solution. 100cm<sup>3</sup> of the solution required 100cm<sup>3</sup> of 2M nitric acid for complete neutralization.

Calculate the value of Y. (K = 39, O = 16, H = 1) (3 marks)

.....

.....

.....

.....

13. Explain how electrical conductivity may be used to distinguish between magnesium oxide and silicon (IV) oxide. (3 marks)

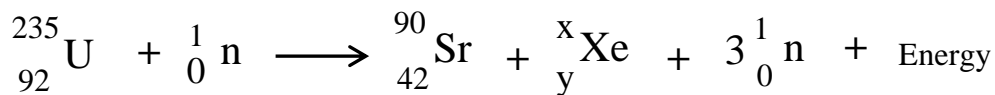
.....

.....

.....

.....

14. In the nuclear reaction below:



a) Identify the value of x and y.

x (1/2 mark)

.....

y (1/2 mark)

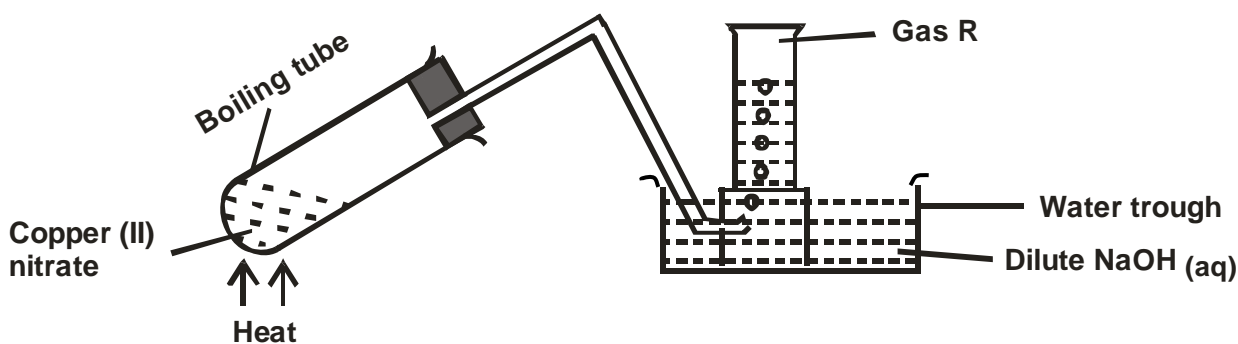
.....

b) State two applications for radioisotopes. (1 mark)

.....

.....

15. The diagram below shows the effect of heat on copper (II) nitrate.



a) State **two** observations made in the boiling tube. (1 mark)

.....  
.....

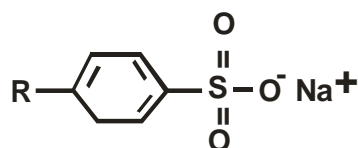
b) Write the equation for the reaction that takes place in the water trough. (1 mark)

.....

c) How would you confirm the identity of gas R? (1 mark)

.....  
.....

16. The structure below represents a cleaning agent which is said to have both an advantage and a disadvantage.



a) Which type of cleaning agent does the structure above represent? (1 mark)

.....

b) State:

i) **one** advantage (1 mark)

.....

ii) **one** disadvantage (1 mark)

.....

17. a) State and explain Boyle's law on the behavior of gases. (2 marks)

.....  
.....  
.....

b) State **two** conditions under which gases are likely to behave as ideal. (1 mark)

.....  
.....

18. Both diamond and graphite have giant atomic structures.

Explain why diamond is hard while graphite is soft.

(2 marks)

.....  
.....

19. a) What is meant by the terms

i) Element

(1 mark)

.....  
.....

ii) Atomic number

(1 mark)

.....  
.....

b) The formula for a chloride of Titanium is  $TiCl_3$ . What is the formula for its sulphate?

(1 mark)

.....  
.....

20. A student investigated the effect of an electric current by passing it through some substances.

The student used inert electrodes and connected a bulb to the circuit.

The table below shows the substances used and their states.

Experiment	Substance	State
1	Potassium carbonate	Solid
2	Copper (II) Sulphate	Solution
3	Sugar	Solution
4	Lead (II) Iodide	Molten

a) In which experiment did the bulb not light?

(1 mark)

.....



.....  
b) Explain your answer in (a) above. (2 marks)

.....  
.....  
.....  
21. a) Name **one** natural polymer. (1 mark)

.....  
b) Give **one** advantage of synthetic fibres over natural fibres. (1 mark)

.....  
22. The table below gives the atomic numbers of elements, W, X, Y and Z. the letters do not represent the actual symbols of the elements.

Element	W	X	Y	Z
Atomic number	9	10	11	12

a) Which one of the elements is least reactive? Explain. (1 mark)

.....  
.....  
b) i) Which **two** elements would react most vigorously with each other? (1 mark)

.....  
.....  
ii) Give formula of the compound formed when the elements in b (i) react. (1 mark)

.....  
.....  
23. a) Name **two** ores from which copper is extracted? (1 mark)

.....  
.....  
b) During extraction of copper metal, the ore is subjected to froth flotation.  
Give a reason why this process is necessary. (1 mark)

.....  
.....  
c) Name **one** alloy of copper and state its use. (1 mark)

.....  
**24.** The table below is part of the periodic table. The letters do not represent the actual symbols of the elements. Study it and answer the questions that follow.

					C	D	E	F
G	H						I	

**a)** Select an element which is stored in paraffin in the laboratory. **(1 mark)**

.....

**b)** How do the Ionic radii of E and I compare? Explain. **(2 marks)**

.....

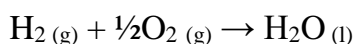
.....

.....

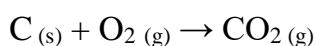
**25.** Use the information below to answer the questions that follow.

Equation

Enthalpy of formation



$$\Delta H_1 = -286 \text{ KJmol}^{-1}$$



$$\Delta H_2 = -394 \text{ KJmol}^{-1}$$



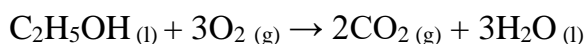
$$\Delta H_3 = -277 \text{ KJmol}^{-1}$$

**a)** Define the term enthalpy of formation of a compound. **(1 mark)**

.....

.....

**b)** Calculate the molar enthalpy of combustion  $\Delta H_4$  of ethanol.



**(2 marks)**

.....

.....

.....

**26.** Nitrogen forms many compounds in which its oxidation state varies.

**a)** What is meant by oxidation state? **(1 mark)**

.....

.....

b) What is the oxidation state of nitrogen in  $Mg_3N_2$ ? (1 mark)

.....

.....

c) Explain why high temperature is required for nitrogen to react with oxygen. (1 mark)

.....

.....

27. Draw and name the isomers of pentane. (3 marks)

.....

.....

.....

.....

.....

.....

.....

28. When a student was stung by a nettle plant a teacher applied an aqueous solution of ammonia to the affected area of the skin and the student was relieved of pain. Explain. (2 marks)

.....

.....

.....

29. Distinguish between ionization energy and electron affinity of an element. (2 marks)

.....

.....

.....

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

# CHEMISTRY

PAPER 2

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

233/2

# CHEMISTRY

PAPER 2

### INSTRUCTIONS:

- (a) Write your name, school and index number in the spaces provided above.
- (b) Sign and write the date of the examination in the spaces provided above.
- (c) Answer **ALL** the questions in the spaces provided.
- (d) Mathematical tables and silent electronic calculators may be used.

### FOR EXAMINER'S USE ONLY

Question	Maximum score	Candidate's score
1	12	
2	12	
3	8	
4	12	
5	15	
6	12	
7	9	
<b>Total score</b>	<b>80</b>	

1. Study the table below and answer the questions that follow.

Element	Atomic number	Relative atomic mass	Melting point (°C)
Aluminum	13	27.0	
Calcium	20	40.0	850
Carbon	—	12.0	3730
Hydrogen	—	1.0	- 259
Magnesium	12	24.0	650
Neon	—	20.0	- 249
Phosphorous	15	31.0	44.2 white 590 red
sodium	—	23	97.8

a) Complete the table by filling in the missing atomic numbers. (2 marks)

b) Write the electron arrangement for the following ion. (2 marks)

i)  $\text{Ca}^{2+}$

.....

ii)  $\text{P}^{3-}$

.....

c) What is the melting point of hydrogen in Kelvin? (1 mark)

.....

d) Which of the allotropes of phosphorous has a higher density? Explain. (2 marks)

.....

.....

.....

e) The mass numbers of three isotopes of magnesium are 24, 25 and 26.

What is the mass number of the most abundant isotope of magnesium? Explain. **(2 marks)**

.....

.....

.....

f) Give the formula of the compound formed between aluminum and carbon. **(1 mark)**

.....

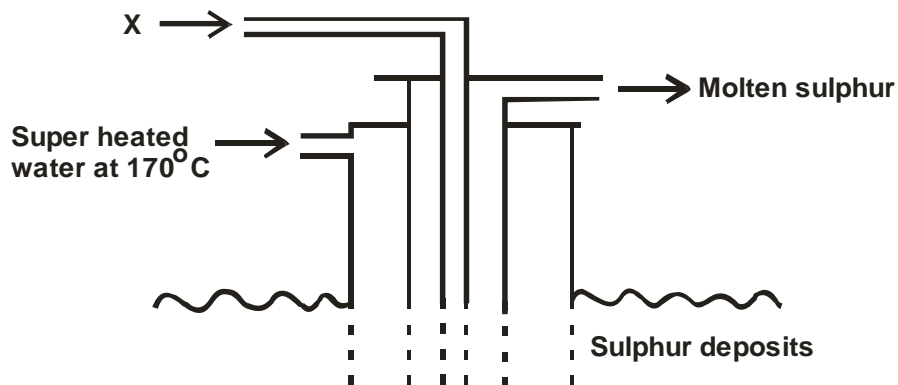
g) Explain the difference in the melting points of magnesium and sodium. **(2 marks)**

.....

.....

.....

2. a) The diagram below shows the Frasch process used for extraction of sulphur. Use it to answer to answer the questions that follow.



i) Identify X. **(1 mark)**

.....

ii) Why is it necessary to use super-heated water in this process? **(1 mark)**

.....

.....

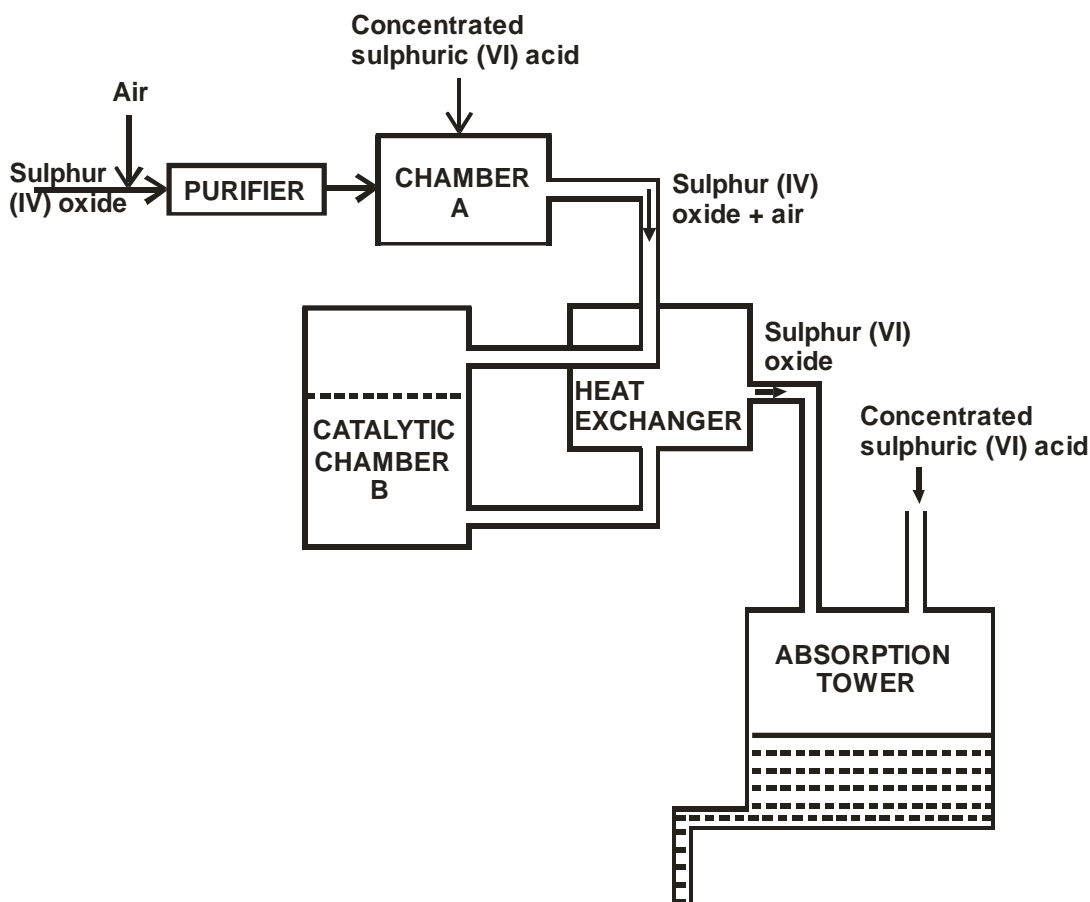
iii) State **two** physical properties of sulphur that makes it possible for it to be extracted by this method. **(2 marks)**

.....

.....

.....

b) The diagram below shows part of the process in the manufacture of sulphuric (VI) acid. Study it and answer the questions that follow.



i) Write an equation for the formation of sulphur (IV) oxide from sulphur. (1 mark)

.....  
 .....

ii) What is the role of concentrated sulphuric (VI) acid in chamber A? (1 mark)

.....

iii) Name **two** catalysts that can be used in the catalytic chamber B. (1 mark)

.....  
 .....

iv) State **two** roles of the heat exchanger. (2 marks)

.....  
 .....

c) Explain **one** way in which sulphur (IV) oxide is a pollutant. (1 mark)

.....  
 .....

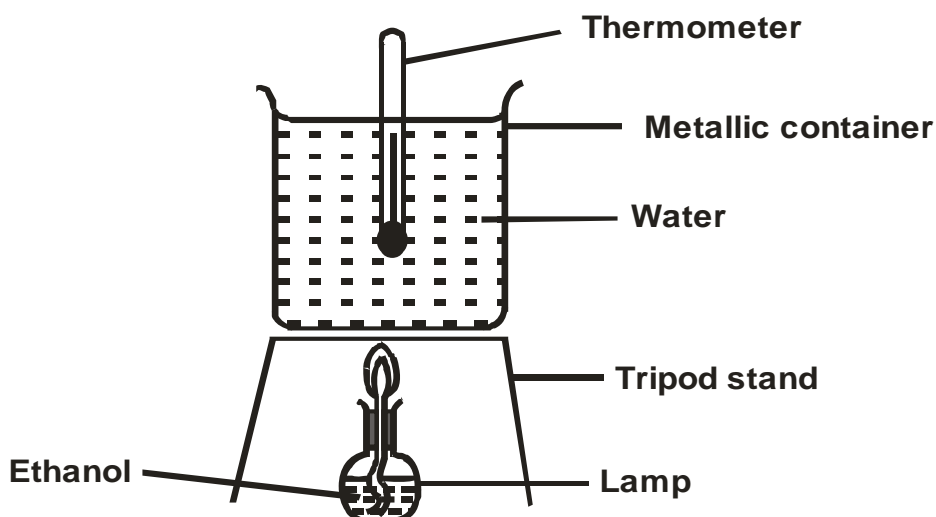
d) What observation will be made when a few drops of concentrated sulphuric (VI) acid are added to crystals of sugar? Explain your answer. (2 marks)

.....  
.....  
.....

3. a) State two factors that should be considered when choosing a fuel for cooking. (2 marks)

.....  
.....

b) The diagram below represents a set-up that was used to determine the molar heat of combustion of ethanol.



During the experiment the data given below was recorded.

Volume of water = 450cm<sup>3</sup>

Initial temperature of water = 25°C

Final temperature of water = 46.5°C

Mass of ethanol + lamp before burning = 125.5g

Mass of ethanol + lamp after burning = 124.0g

**Calculate the:**

i) Heat evolved during the experiment.

(Density of water = 1g/cm<sup>3</sup> specific heat capacity of water = 4.2Jg<sup>-1</sup>K<sup>-1</sup>). (2 marks)

ii) Molar heat of combustion of ethanol

(2 marks)

.....  
.....  
.....  
.....



c) Write the equation for the complete combustion of ethanol. (1 mark)

.....

d) The value of the molar heat of combustion of ethanol obtained in b (ii) above is lower than the theoretical value. State **one** source of error in the (1 mark)

.....

4. a) Crude oil is a source of many compounds that contain carbon and hydrogen only.

i) Name the process used to separate the components of crude oil. (1 mark)

.....

ii) State **two** physical properties of the above components that determine the separation. (2 marks)

.....

.....

b) Under certain conditions, Heptane can be converted to two products.

The formula of one of the products is  $C_3H_8$ .

i) Write the formula of the other product. (1 mark)

.....

.....

ii) Determine a simple chemical reaction to show the difference between the two products formed in **b(i)** above. (2 marks)

.....

.....

.....

c) Butyne  $C_4H_6$  is another compound found in crude oil. One mole of butyne was reacted with one mole of hydrogen chloride gas and a product P1 was formed. P1 was then reacted with excess hydrogen gas to form P2. Draw the structure of P1 and P2. (2 marks)

.....

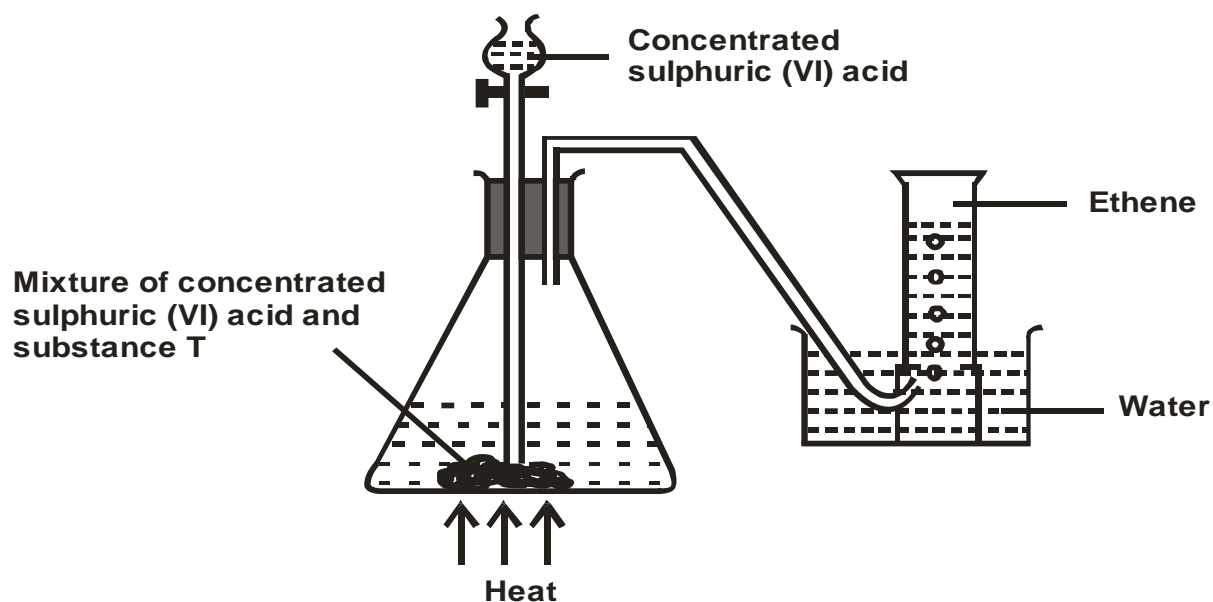
.....

.....

.....

d) The set up below was used to prepare and collect ethene gas.

Study it and answer the questions that follow.



i) Name substance T. (1 mark)

.....

ii) Give the property of ethene that allows it to be collected as shown in the set-up. (1 mark)

.....

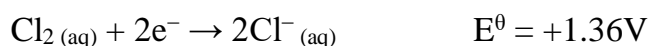
e) One of the reactions undergone by ethene is addition polymerization.

Give the name of the polymer and **one** disadvantage of the polymer it forms. (2 marks)

Name

Disadvantage

5. a) The standard electrode potentials for the elements chloride and magnesium are:

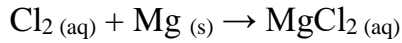


i) Which one for the two elements will act as an oxidizing agent? Explain your choice.

(2 marks)

.....  
.....  
.....

ii) Calculate the electromotive force of a cell where the overall reaction is:



(1 mark)

.....  
 .....  
 .....

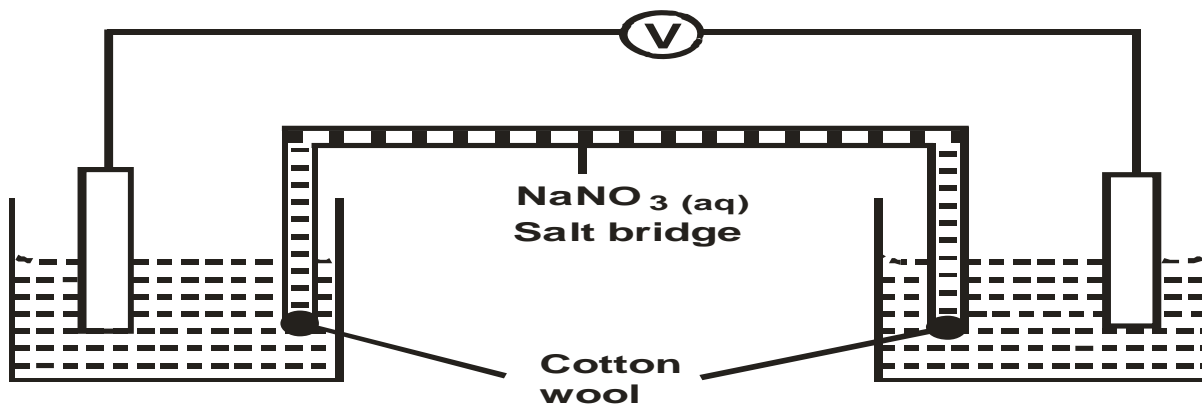
b) The table below gives the standard electrode potentials for divalent metals represented by the letters P, Q, R and S (not their symbols of elements). Use it to answer the question that follow.

Metal	$E^\theta$ (volts)
P	+1.50
Q	+0.44
R	+0.34
S	-0.76

i) Which one of the metals cannot be displaced from a solution of its ions by any other metals in the table? Explain. (2 marks)

.....  
 .....  
 .....

ii) Metals P and Q were connected to form a cell as shown in the diagram below.



I. On the diagram label the metals P and Q and indicate the ions in solution. (2 marks)

II. Write equations (half equations) of the reactions taking place at the electrodes.

Electrode P

(1 mark)

.....  
.....

Electrode Q

(1 mark)

.....  
.....

III. State **two** functions of the salt bridge.

(2 marks)

.....  
.....

IV. What must be observed about the choice of a salt bridge?

(1 mark)

.....  
.....

iii) A metallic couple of the metal S and Z produced a voltage of +1.71 volts.

(Assume that S has the higher negative electrode potential)

I. Calculate the standard electrode potential (S.E.P) for metal Z.

(1 mark)

.....  
.....

II. Arrange the metals P, Q, R and Z in their decreasing order of reactivity.

(2 marks)

.....  
.....  
.....

6. a) Define the term solubility.

(1 mark)

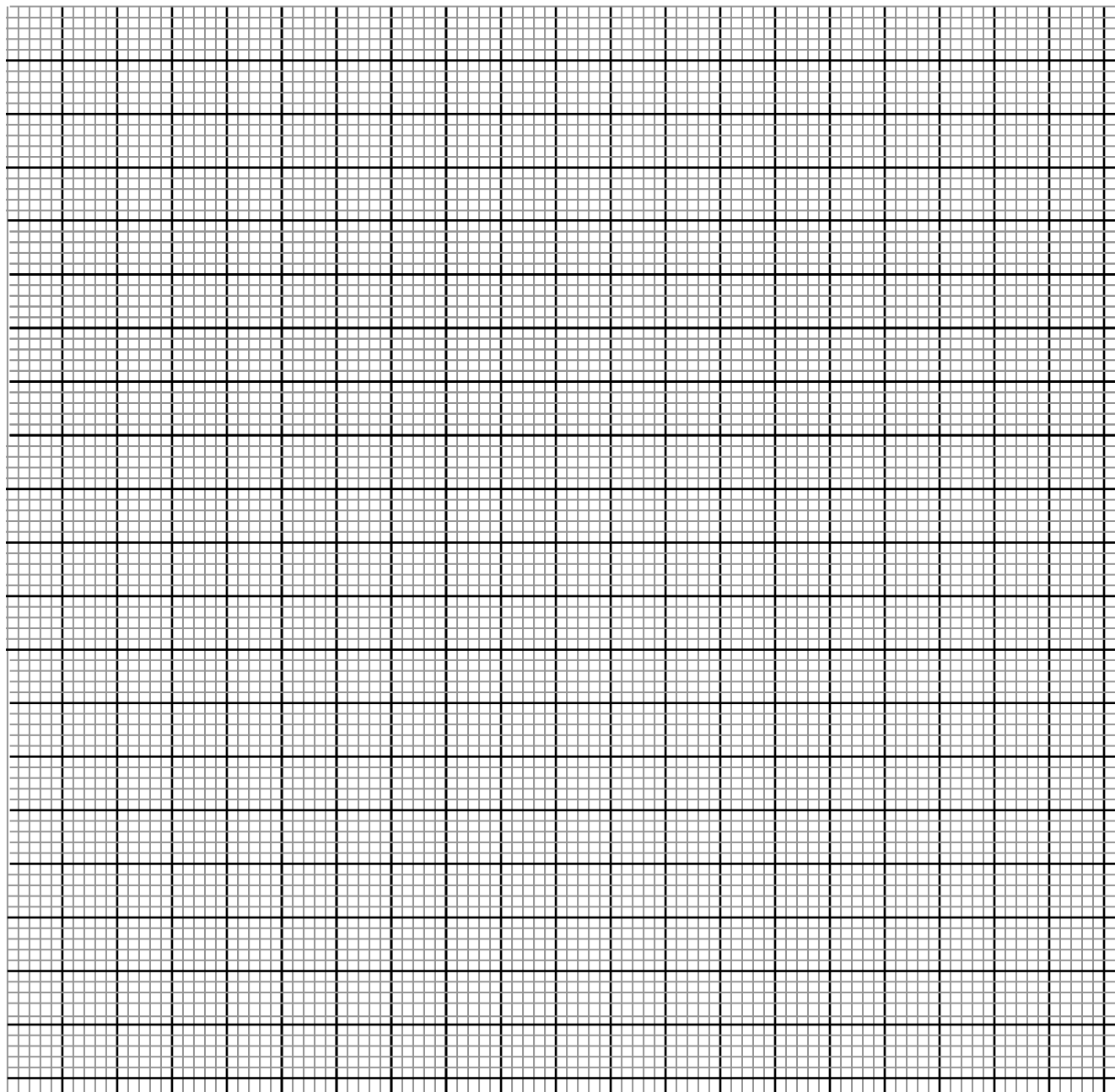
.....  
.....

b) In an experiment to determine the solubility of two salts X and Y at different temperatures, a candidate recorded her observations as shown below.

Temperature (°C)	0	10	20	30	40	50	60	70	80	90
Solubility of X in g/100g of H <sub>2</sub> O	14.3	17.4	20.7	25.0	28.5	33.3	40.0	47.0	55.0	64.0
Solubility of Y in g/100g of H <sub>2</sub> O	25.0	27.5	30.0	32.5	35.0	37.6	40.1	42.4	45.0	48.0

On the same axes plot the solubility curves of X and Y against temperature.

**(5 marks)**



c) From the graph determine;

i) Solubility of X and Y at 47°C.

Solubility of X.

**(½ mark)**

.....  
.....

Solubility of Y.

**(½ mark)**

.....  
.....

ii) The temperature at which the two salts have the same solubility in water. **(1 mark)**

.....  
.....

**d)** If 60g of X is dissolved in 100g of water and heated to 90°C, calculate the amount of salt that crystallized out if cooled to 20°C. **(1 mark)**

.....  
.....

**e)** State what would happen if a mixture of salt X in 100g of water and 30g of Y in 100g of water were cooled from 90°C to 70°C. **(2 marks)**

.....  
.....

**f)** State **one** application of solubility. **(1 mark)**

.....

**7.** In an experiment, a piece of magnesium ribbon was cleaned with steel wool. 2.4g of the clean magnesium ribbon was placed in crucible and completely burnt in oxygen.

After cooling, the product weighed 4.0g.

**a)** Explain why it is necessary to clean the magnesium ribbon. **(1 mark)**

.....  
.....

**b)** What observation was made in the crucible after burning? **(1 mark)**

.....

**c)** Why was there an increase in mass? **(1 mark)**

.....

**d)** Write the equation for the reaction which took place in the crucible. **(1 mark)**

.....

**e)** The product in the crucible was shaken with water and filtered.

Explain the observation which was made when blue and red litmus papers were dropped into the filtrate. **(2 marks)**

.....  
.....

**f)** Calculate the volume of oxygen gas used during the burning.

(O = 16, molar volume of gas = 24000cm<sup>3</sup> at room temperature) **(3 marks)**

.....  
.....  
.....  
.....

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

# CHEMISTRY

### PAPER 3

### (PRACTICAL)

### CONFIDENTIAL

### INSTRUCTIONS TO ALL SCHOOLS

1. The information contained in this paper is to enable the head of school and the teacher in charge of **Chemistry** to make adequate preparations for this **Chemistry** Practical examination. **NO ONE ELSE** should have access to this paper or acquire knowledge of its contents. Great care **MUST** be taken to ensure that the information herein does not reach the candidates either directly or indirectly.
2. The **Chemistry teacher** should note that it is his / her responsibility to ensure that each apparatus acquired for this examination agrees with the specifications given.
3. The teacher in charge of Chemistry **should not** perform any of the experiments in the same room as the candidates nor make the results of the experiments available to the candidates or give any other information related to the experiments to the candidates. Doing so will constitute an examination irregularity which is punishable.
4. The question paper will not be opened in advance.

**In addition to the fittings and apparatus found in a chemistry laboratory, each candidate will require.**

1. *About 120cm<sup>3</sup> of solution A*
2. *About 120cm<sup>3</sup> of solution B*
3. *About 100cm<sup>3</sup> of solution C*
4. *One pipette 25.0ml*
5. *One pipette filler*
6. *One volumetric flask 250ml*
7. *One burette 0 – 50ml*
8. *Two conical flasks*
9. *6 clean dry test-tubes*
10. *Test-tube rack*

11. One thermometer – 10°C – 110°C
12. Two boiling tubes
13. About 0.5g of solid Q in a stoppered container
14. About 0.5g of solid Y in a stoppered container
15. One 10ml measuring cylinder
16. One 100 ml beaker
17. About 500ml of distilled water in a wash bottle
18. One metallic spatula
19. 1g of sodium hydrogen carbonate (solid)
20. One label

### **Access to:**

1. Methyl orange indicator supplied with a dropper.
2. Bunsen burner.
3. 2M aqueous ammonia
4. 2M sodium hydroxide supplied with a dropper.
5. 0.5M barium nitrate solution.
6. 0.5M lead (II) nitrate.
7. 2M nitric (V) acid.
8. Acidified potassium manganate (VII) solution supplied with a dropper.

### **Preparations:**

1. Solution A is prepared by dissolving 88cm<sup>3</sup> of 1.18g/cm<sup>3</sup> (35%) concentrated hydrochloric acid in about 600cm<sup>3</sup> of distilled water and diluting to one litre of solution.
2. Solution B is prepared by dissolving 8.0g sodium carbonate in about 500cm<sup>3</sup> of distilled water and diluting to one litre of solution.
3. Solution C is prepared by dissolving 60.0g of sodium hydroxide pellets in about 700cm<sup>3</sup> of distilled water and diluting to one litre of solution.
4. Acidified potassium manganate (VII) is prepared by dissolving 3.16g of solid potassium manganate (VII) in about 600cm<sup>3</sup> of 2M Sulphuric (VI) acid and adding distilled water to make 1litre.
5. Solid Q is aluminum chloride.
6. Solid Y is maleic acid.



# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

# CHEMISTRY

PAPER 3

TIME: 2¼ HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

233/3

# CHEMISTRY

PAPER 3

(PRACTICAL)

### INSTRUCTIONS:

- 1) Write your name and index number in the spaces provided above.
- 2) Answer **ALL** questions in the spaces provided.
- 3) You are **NOT** allowed to start working with the apparatus for the first 15 minutes of the 2¼ hours allowed for this paper. This time will enable you read through the question paper and make sure you have all the chemicals and apparatus required.
- 4) Mathematical tables and electronic calculators may be used.
- 5) All working **must be** clearly shown where necessary.

### FOR EXAMINER'S USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1	21	
2	12	
3	07	
TOTAL SCORE	40	

**1. You are provided with;**

- Aqueous hydrochloric acid labeled solution A.
- Solution B containing 8.0 g per litre of sodium carbonate.
- An aqueous solution of substance C labeled solution C.
- 

**You are required to determine the;**

- Concentration of solution A.
- Enthalpy of reaction between hydrochloric acid and substance C.

**Procedure I**

Using a pipette and pipette filler, place 25.0cm<sup>3</sup> of solution A into a 250ml, volumetric flask. Add distilled water to make 250cm<sup>3</sup> of solution. Label this solution D.

Place solution D in a burette. Clean the pipette and use it to place 25.0cm<sup>3</sup> of solution B into a conical flask. Add 2 drops of methyl orange indicator provided and titrate with solution D. Record your results in table 1. Repeat the titration two more times and complete the table.

**Table 1**

	I	II	III
Final burette reading			
Initial burette reading			
Volume of solution D used (cm <sup>3</sup> )			

**(4 marks)**

Calculate;

- i) Average volume of solution D used. **(1 mark)**

.....  
.....  
.....

- ii) Concentration of sodium carbonate in solution B. **(1 mark)**  
(Na = 23.0, O = 16.0, C = 12.0)

.....  
.....  
.....

iii) Concentration of hydrochloric acid in solution D. (2 marks)

.....

.....

.....

.....

iv) Concentration of hydrochloric acid in solution A. (1 mark)

.....

.....

.....

### **PROCEDURE II**

Using a clean burette, place 2 cm<sup>3</sup> of solution A into a boiling tube. Take the initial temperature of the solution in the boiling tube and record it in table 2. Using a clean measuring cylinder, measure 14 cm<sup>3</sup> of solution C into 100cm<sup>3</sup> beaker and add it to a solution A in the boiling tube. Stir the mixture immediately with a thermometer and record in table 2 the highest temperature reached. Repeat the experiment with the other sets of volumes of A and C in the table and complete it.

(Rinse the thermometer and the boiling tube with distilled water after each experiment)

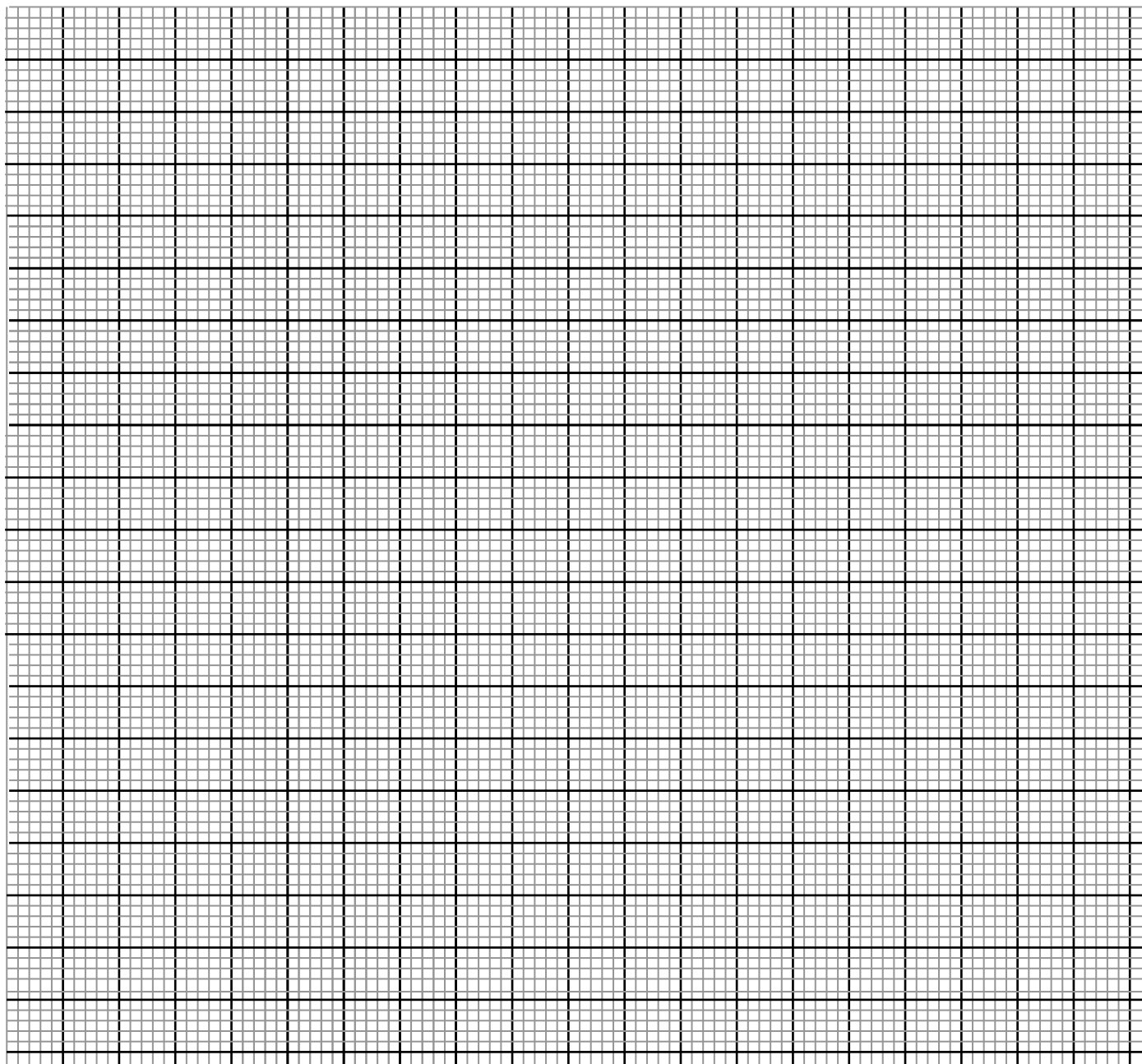
**Table 2**

Volume of solution A (cm <sup>3</sup> )	2	4	6	8	10	12	14
Volume of solution C (cm <sup>3</sup> )	14	12	10	8	6	4	2
Initial temperature of solution C (°C)							
Highest temperature of solution C (°C)							
Change in temperature $\Delta T$ (°C)							

(5 marks)

i) On the grid provided, draw a graph of  $\Delta T$  (vertical axis) against volume of solution A used .

**(3 marks)**



ii) From the graph, determine;

I The maximum change in temperature.

**(1/2 mark)**

.....  
.....

II. The volume of solution A required to completely neutralize solution C.

**(1/2 mark)**

.....  
.....  
.....

iii) Calculate the;

I. Number of moles of hydrochloric acid required to completely neutralize solution C. (1 mark)

.....  
.....  
.....

II. Molar enthalpy of reaction between hydrochloric acid and substance C (in kilojoules per mole of hydrochloric acid). Assume the specific heat capacity of the solution is  $4.2 \text{ Jg}^{-1}\text{K}^{-1}$  and density of solution is  $1.0 \text{ gcm}^{-3}$ . (2 marks)

.....  
.....  
.....

2. You are provided with solid Q. Carry out the following tests on Q and record your observations and inferences in the spaces provided.

a) Place a spatula of solid Q into a boiling tube and add  $12 \text{ cm}^3$  of distilled water.

Shake the mixture thoroughly. Divide the mixture into five portions.

Observations	Inferences
(1 mark)	(1 mark)

b) To the first portion, add  $5 \text{ cm}^3$  of 2M Nitric (V) acid.

Observations	Inferences
(1 mark)	(1 mark)

c) To the second portion, add four drops of lead (II) nitrate solution.

<b>Observations</b>	<b>Inferences</b>
(1 mark)	(1 mark)

d) To the third portion, add four drops of Barium nitrate solution.

<b>Observations</b>	<b>Inferences</b>
(1 mark)	(1 mark)

e) To the fourth portion, add sodium hydroxide solution dropwise until in excess.

<b>Observations</b>	<b>Inferences</b>
(1 mark)	(1 mark)

f) To the fifth portion, add ammonia solution dropwise until in excess.

<b>Observations</b>	<b>Inferences</b>
(1 mark)	(1 mark)

3. You are provided with substance Y.

Carry out the following tests on Y and record your observations and inferences in the spaces provided.

a) Describe the appearance of solid Y. (1 mark)

.....  
.....

b) Scoop a little solid Y with a clean metallic spatula and ignite it using non-luminous part of the Bunsen burner flame.

Observations	Inferences
(1 mark)	(1 mark)

c) Add about 10 cm<sup>3</sup> of distilled water to the remaining solid Y in a boiling tube. Divide the resulting mixture into 2 portions.

i) To the portion one, add 3 drops of acidified potassium manganate (VII) solution.

Observations	Inferences
(1 mark)	(1 mark)

ii) To portion two, add sodium hydrogen carbonate.

Observations	Inferences
(1 mark)	(1 mark)

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

# PHYSICS

### PAPER 1

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

### INSTRUCTIONS

1. Write your name, school and index number in the spaces provided above.
2. Sign and write the date of examination in the spaces provided above.
3. This paper consists of **two** sections, **section A** and **B**.
4. Answer **ALL** the questions in **section A** and **B** in the spaces provided.
5. **ALL** answers and working **MUST** be clearly shown.

Where necessary take -  $g = 10 \text{ ms}^{-2}$

- Specific heat capacity of copper =  $400 \text{ Jkg}^{-1}\text{k}^{-1}$

- Specific heat capacity of oil =  $2400 \text{ J/kg}^{-1}\text{k}^{-1}$

Specific latent heat of fusion of ice =  $336000 \text{ Jkg}^{-1}$

### FOR OFFICIAL USE ONLY

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1-13	25	
B	14	12	
	15	12	
	16	11	
	17	11	
	18	09	
	TOTAL		80



**SECTION A (25 MARKS)**

*Answer ALL the questions in this section in the spaces provided.*

1. The micrometer screw gauge represented in figure 1 below has a thimble scale of 50 divisions.

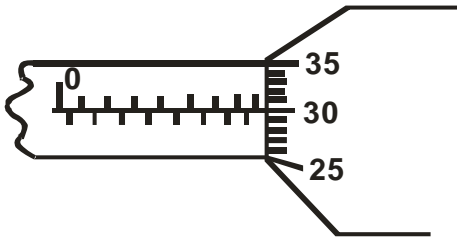


Figure 1

What is the reading shown?

**(1 mark)**

2. Two identical tubes A and B held horizontally contain air and water respectively. A small quantity of coloured gas is introduced at one end of A while a small quantity of coloured water is introduced to one end of B. State with reasons the tube in which the colour will reach the other end faster. **(2 marks)**

.....  
.....  
.....

3. In the study of free fall, it is assumed that the force  $F$  acting on a given body of mass,  $m$ , is gravitational, given by  $F = ma$ . State **two** other forces that act on the same body. **(2 marks)**

.....  
.....

4. Figure 2 below shows a uniform metre rule of weight, 1N with two weights of 0.18N and 0.12N suspended from its ends.

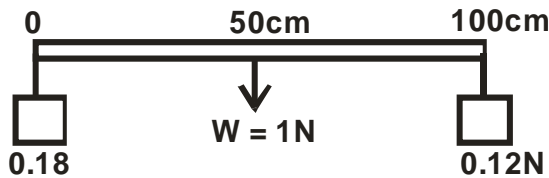


Figure 2

Determine how far from the 0.18N a pivot should be placed in order to balance the metre rule.

**(3 marks)**

5. Sketch a velocity time graph for a body moving down a viscous fluid. **(1 mark)**

6. State the reason why banking of a circular part of road is necessary. **(1 mark)**

.....  
.....

7. A lady of mass 80kg walks up a flight of 10 stairs each 20cm high in 5 seconds.  
Determine the power she develops. **(3 marks)**

8. Figure 3 shows a fire alarm circuit.

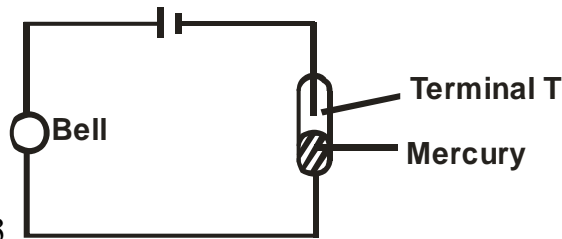


Figure 3

Explain how it works. **(3 marks)**

.....  
.....  
.....  
.....

9. A light spiral spring extends by 4mm when loaded with a weight  $W$ . The spring is connected in series with an identical spring. The combination is loaded with weight  $W$ .  
Determine the extension of the combination. **(2 marks)**

10. In an experiment to demonstrate atmospheric pressure, a plastic bottle is partially filled with hot water and the bottle is then tightly corked. After some time the bottle starts to get deformed.

i) State the purpose of hot water. **(1 mark)**

.....  
.....

ii) State the reason why the bottle gets deformed. (1 mark)

.....

iii) Explain your answer in (ii) above. (2 marks)

.....

.....

.....

11. Define the term angular velocity. (1 mark)

.....

.....

12. Tall buildings are built with lighter materials at the upper part. Explain. (1 mark)

.....

.....

13. State how the pressure in a moving fluid varies with speed of the fluid. (1 mark)

.....

.....

**SECTION B (55 MARKS)**

**Answer ALL questions in this section in the spaces provided.**

14. a) When a bullet of mass 0.02kg was fired into a block of ballistick pendulum of mass 1.98kg, the block rose through a height of 15cm as in the figure 4 below.

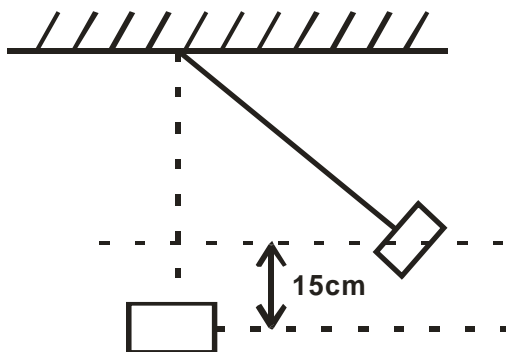


Figure 4

Determine:

i) The potential energy of the block and the bullet. (2 marks)

**ii)** The velocity of the bullet and block.

**(2 marks)**

**b)** A trolley of mass 1kg moving at  $1 \text{ ms}^{-1}$  collides with a stationary block of wood of mass 2kg. If the trolley and the block of wood are stuck together and moved a distance of 0.1m before coming to rest. Find the,

i) Velocity of the system after collision.

**(2 marks)**

ii) Kinetic energy after collision.

**(2 marks)**

**iii)** The frictional force.

**(2 marks)**

**c)** In the figure 5 below shows a velocity time graph for an object in a certain motion.

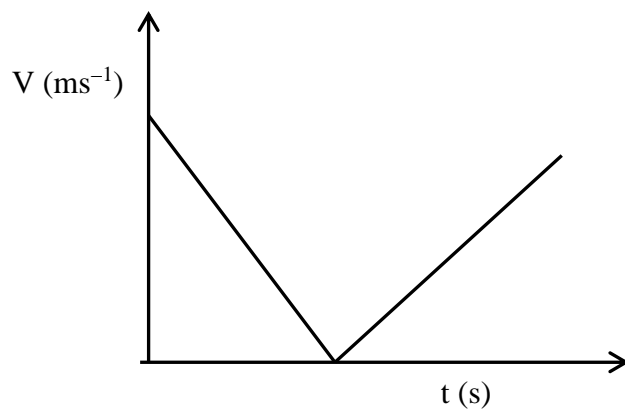


Figure 5

Describe the motion of the body.

(2 marks)

.....  
.....  
.....

15. a) Explain why bodies in circular motion undergo acceleration even when their speed is constant. (1 mark)

.....  
.....

b) A particle moving along a circular path of radius 5m describes an arc length 2m every 2 seconds.

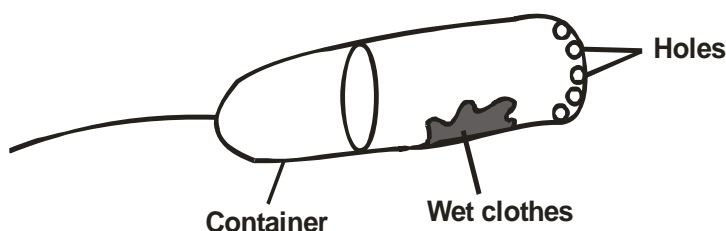
Determine:

i) Its angular velocity. (2 marks)

ii) Its periodic time. (2 marks)

c) A stone of mass 40g tied to the end of a string of 50cm and whirled in a vertical circle at 2 revolutions per second. Calculate the maximum tension in the string. (3 marks)

d) Figure 6 below shows a container with small holes at the bottom in which wet clothes have been put.



When the container is whirled at high speed, it is observed that the clothes dry faster.

Explain how the rotation of the container causes the clothes to dry faster. **(2 marks)**

.....  
.....  
.....

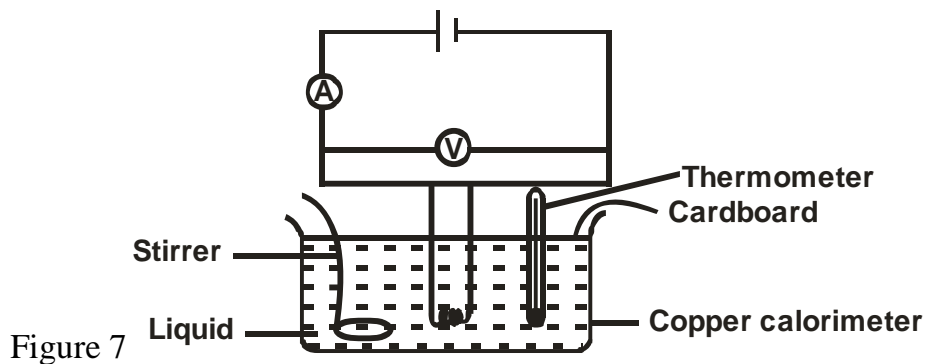
e) State **two** factors affecting centripetal force. **(2 marks)**

.....  
.....

16. a) Distinguish between heat capacity and specific heat capacity. **(2 marks)**

.....  
.....  
.....

b) Figure 7 below shows a set up that may be used to determine specific heat capacity of the liquid.



i) Outline the measurements that should be taken in the experiment. **(2 marks)**

.....  
.....  
.....

ii) Explain how the measurements in (i) above are used to determine the specific heat capacity of the liquid. **(3 marks)**

.....  
.....  
.....  
.....

iii) State **one** precaution one would take in modifying the setup for accurate results. **(1 mark)**

.....

c) An electric heater rated 2kW is used to heat a 400g aluminium container filled with 1kg of water. Assuming no heat is lost to surrounding; calculate the time taken to raise the temperature of the water by 10°C. Take specific heat capacity of aluminium as  $900\text{Jkg}^{-1}\text{k}^{-1}$  and that of water as  $4200\text{Jkg}^{-1}\text{k}^{-1}$ . **(3 marks)**

17. a) Define the term work and state its SI units. **(2 marks)**

.....  
.....

b) A crane lifts a load of 500kg through a vertical distance of 4m in 8 seconds. Determine

i) **Work** done by the crane. **(2 marks)**

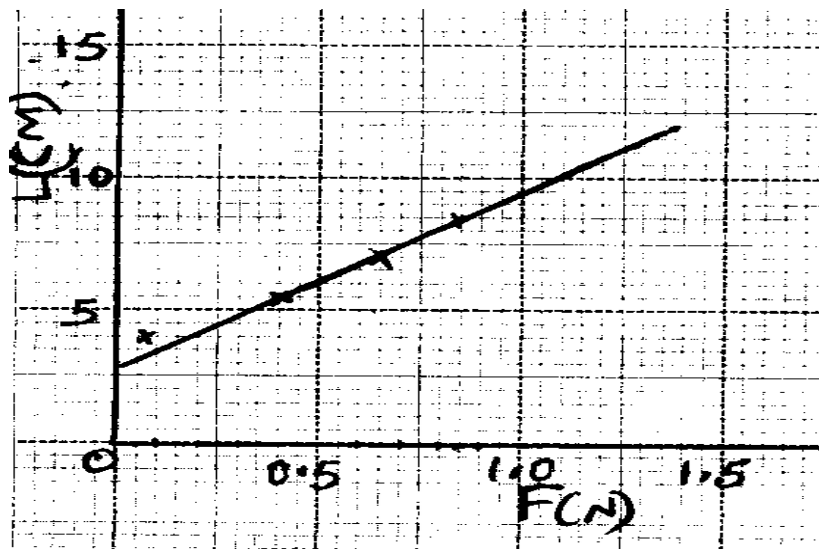
ii) Power developed by the crane. **(2 marks)**

iii) Efficiency of the crane given that it's operated by an electric motor rated 2.8kW. **(3 marks)**

iv) State **two** factors that contribute to the efficiency being less than 100%. **(2 marks)**

.....  
.....

18. The graph below shows force  $F$  applied to a spring and the corresponding length  $h$  of the spring.



a) Use the graph above to find;  
 i) The length of the unloaded spring. (1 mark)

ii) The gradient of the graph. (2 marks)

iii) The spring constant in SI unit. (2 marks)

b) A body weighing 25N displaces 1.4kg of water when totally immersed in it.  
 Find the reading of a spring balance supporting the body in water. (2 marks)

c) When a stone is placed on water, it sinks. But when the same stone is placed on a block of wood, both are found to float. Explain this observation. (2 marks)

.....  
 .....



# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

# PHYSICS

### PAPER 2

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

### INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the spaces provided above.
2. Sign and write the date of examination in the spaces provided above.
3. This paper consists of two sections, **section A** and **B**.
4. Answer **all** the questions in **section A** and **B** in the spaces provided.

Where necessary take: -  $g = 10\text{N/kg}$

- Plank's constant,  $h = 6.63 \times 10^{-34} \text{ J.S}$

- Speed of light,  $C = 3.0 \times 10^8 \text{ ms}^{-1}$

### FOR EXAMINER'S USE ONLY

Section	Question	Maximum score	Candidate's score
A	1–13	25	
B	14	11	
	15	09	
	16	14	
	17	11	
	18	10	
	Total	80	

**SECTION A** (25 MARKS)

*Answer ALL the questions in this section in the spaces provided.*

1. An object 10cm tall is placed 20cm in front of a diverging lens of focal length 15cm.  
Determine the nature, position and magnification of the image by calculation. **(3 marks)**

2. Explain why the image formed in a pinhole camera gets blurred when the hole is enlarged.  
**(1 mark)**

.....  
.....

3. Figure 1 shows a cell of e.m.f 2.5V connected in series with a resistor R and a switch S.  
Voltmeter,  $V_1$  and  $V_2$  are connected across the cell and the resistor respectively.

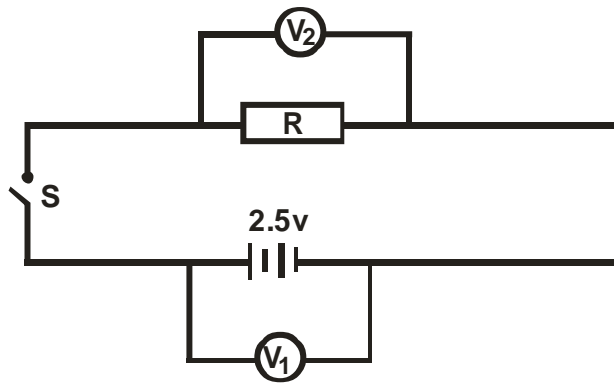
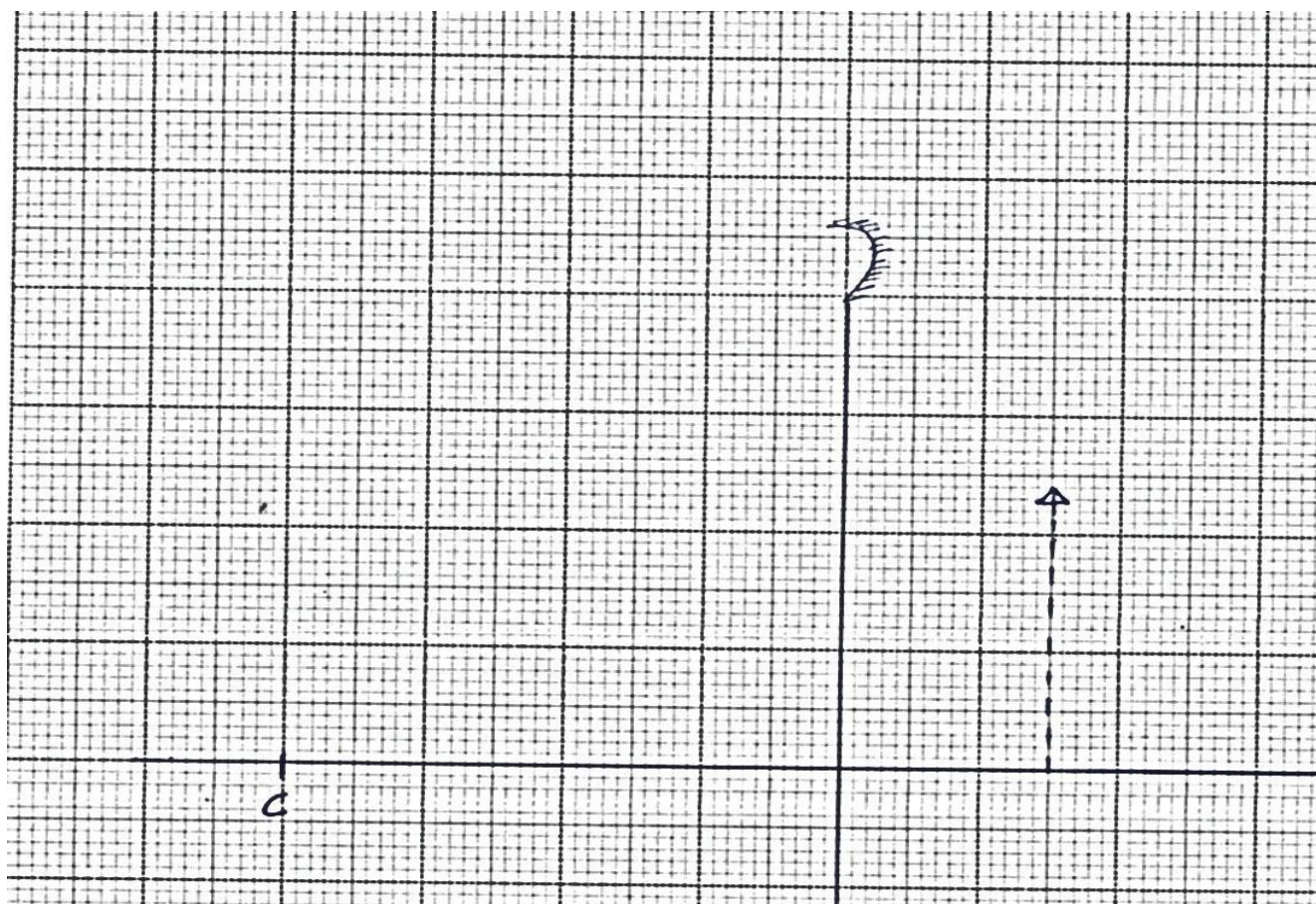


Figure 1

- a) State the reading of  $V_1$  with S open. **(1 mark)**

- b) With S closed,  $V_1$  reads 1.6V. State the reading of  $V_2$ . **(1 mark)**

4. Figure 2 shows the image of an object formed by reflection in a converging mirror.  
C is the centre of curvature of the mirror.



**Figure 2**

Complete the diagram to show:

- How incident rays are reflected to form the image. **(2 marks)**
  - The object position. **(1 mark)**
5. The equation below represents a nuclear reaction in which two deuterium nuclei fuse to form helium and X.
- $${}^2_1\text{H} + {}^2_1\text{H} \longrightarrow {}^4_2\text{He} + {}^a_b\text{X}$$
- Determine the values of a and b. **(1 mark)**
  - Identify X. **(1 mark)**

6. Figure 3 shows a simple transformer connected to a 24v a.c source and an a.c voltmeter.

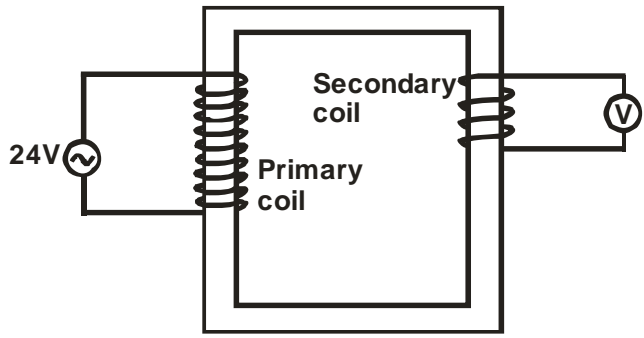


Figure 3

By counting the number of turns in each coil, determine the reading on the voltmeter.

(2 marks)

7. In domestic wiring systems lamps in the lighting circuit are required to be in parallel and not in series. State **two** reasons for this requirement. (2 marks)

.....  
 .....

8. Figure 4 shows a narrow beam of x-rays passing between two metal plates in air. The plates are connected in series with a switch, a cell and a milliammeter.

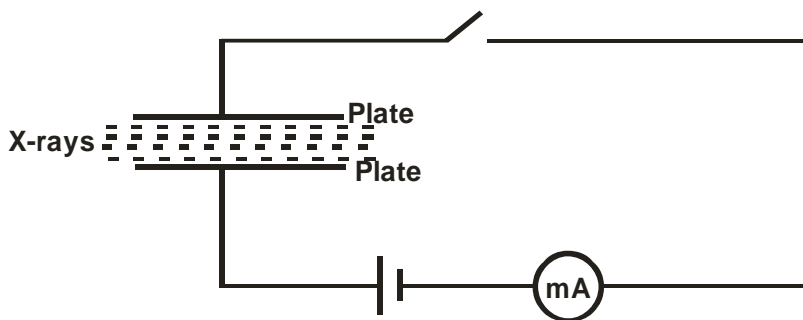


Figure 4

It is observed that when the switch is closed a current flows in the milliammeter.

Explain this observation.

(2 marks)

.....  
 .....

9. The anode of an x-ray tube becomes hot when the tube is in use. State the reason for this.

(1 mark)

.....  
 .....

10. Draw a ray diagram to show how a ray of light may be totally internally reflected two times in an isosceles right-angled glass prism. (Assume that the critical angle of glass is  $42^\circ$ .)  
(2 marks)

11. Given that the velocity of sound in air is  $330\text{ms}^{-1}$ .  
Calculate the wavelength of sound produced by a tuning fork rated 0.44 kHz. (2 marks)

12. Figure 5 below shows two bar magnets and soft iron ring placed between the magnets.

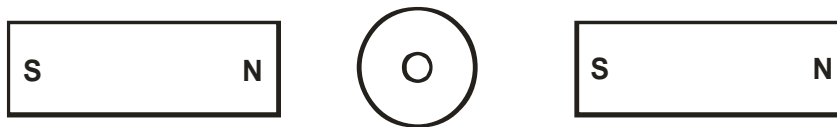


Figure 5

Complete the diagram to show the magnetic field pattern through the soft iron ring.

(1 mark)

13. Determine the power of a lens whose focal length is 40cm. (2 marks)

**SECTION B (55 MARKS)**

*Answer ALL questions in this section in the spaces provided.*

14. a) Explain how a negatively charged electroscope gets discharged when the cap is touched with a finger using a simple diagram. **(2 marks)**

.....  
.....

- b) Figure 6 shows capacitors A and B connected in series with a battery of e.m.f 4V.

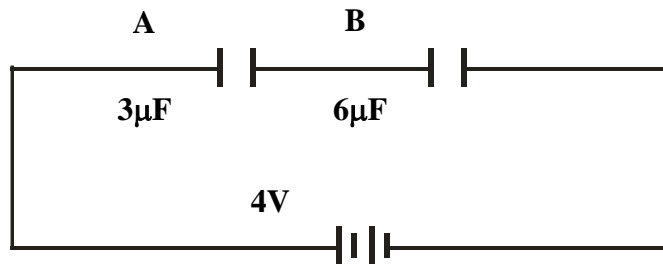


Figure 6  
Determine:

- i) The effective capacitance of the circuit. **(3 marks)**

- ii) The quantity of charge in capacitor A. **(3 marks)**

- iii) The quantity of charge in capacitor B. **(1 mark)**

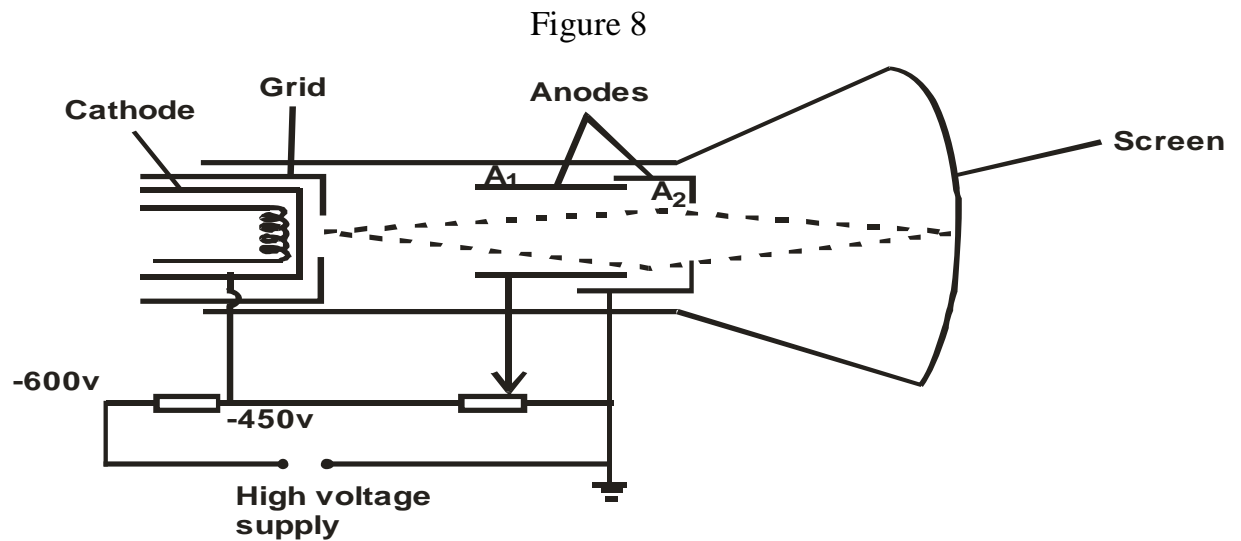
- c) Figure 7 shows an isolated positive point charge Q.



Figure 7

On the figure, sketch the electric field pattern around the charge. (2 marks)

15. a) Figure 8 below shows a cathode ray tube in which a beam of electrons is cast on the screen.



i) State how the electrons are produced in the tube. (1 mark)

---

---

---

ii) State how the electron beam is detected. (1 mark)

---

---

---

iii) State the reason for having a variable potential difference (p.d) at the:

I. grid (1 mark)

---

---

---

II. anodes (1 mark)

---

---

---

b) Figure 9 below shows the wave form of a signal applied at the y-plates of an oscilloscope whose time base is switched to the scale of 20 milliseconds per centimeter.

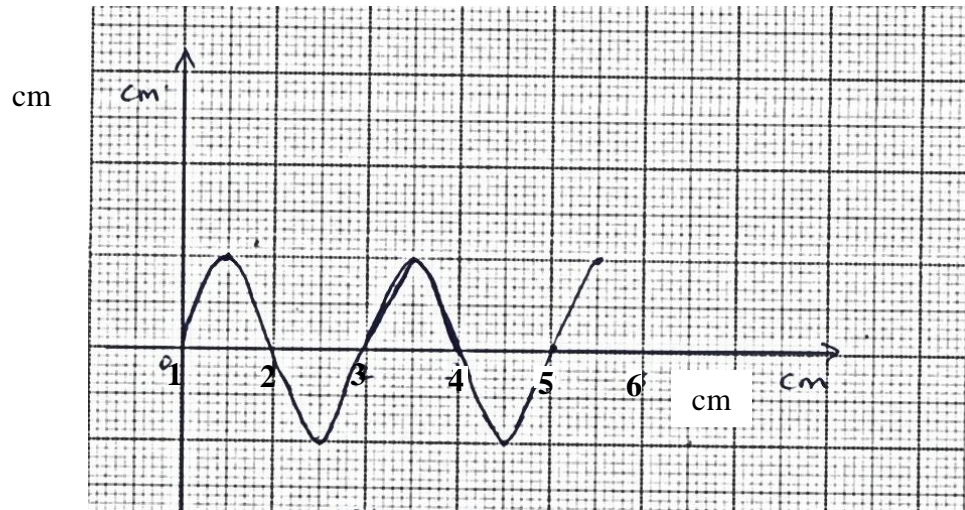


Figure 9

Determine:

i) The period of the signal. (2 marks)

ii) The frequency of the signal. (3 marks)

16. An X-ray tube requires an anode potential of  $10^5\text{V}$  and a current of  $0.02\text{A}$  to operate.

Determine:

a) The number of electrons hitting the target per second. (3 marks)

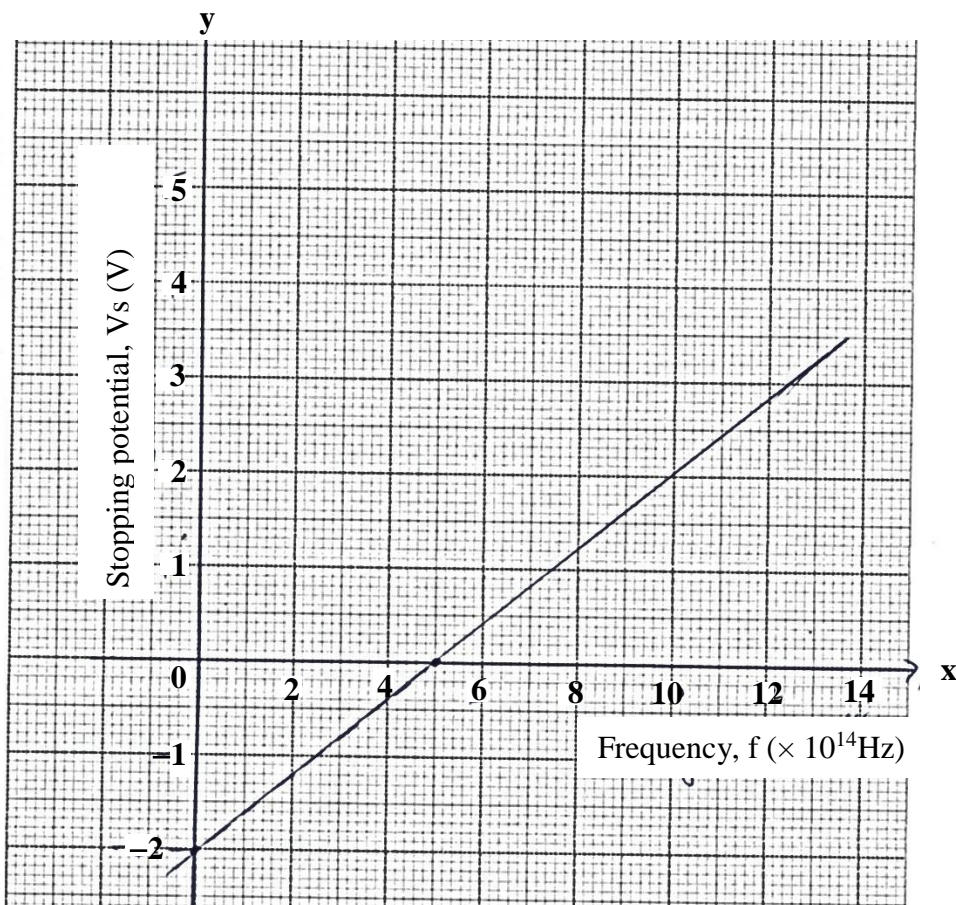


b) The velocity with which the electrons hit the target.

( $e = 1.6 \times 10^{-19}\text{C}$ ,  $m_e = 9.0 \times 10^{-31}\text{kg}$ )

(2 marks)

c) In an experiment to investigate the relationship between energy of radiation and stopping potential, the results were shown in a graph below. (Velocity of light =  $3 \times 10^8 \text{ ms}^{-1}$  and  $e = 1.6 \times 10^{-19}\text{C}$ ).



From the graph determine:

i) The threshold frequency.

(1 mark)

ii) The threshold wavelength.

(2 marks)

iii) Planck's constant.

(3 marks)

iv) The work function.

(3 marks)

17. a) A ray of light is incident on a plane mirror as shown in figure 9 below.

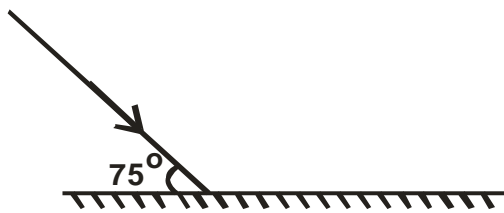


Figure 9

What is the angle of reflection?

(1 mark)

b) The mirror is then rotated clockwise through  $20^\circ$ . Determine:

i) The angle through which the reflected ray is turned.

(2 marks)

ii) The angle between the incident ray and new reflected ray.

(2 marks)

c) Explain **two** ways in which power loss is reduced in transmission of mains electricity.

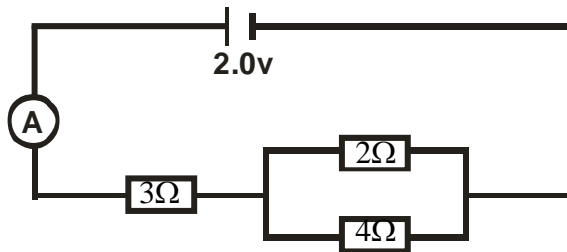
(2 marks)

---

---

---

d) The diagram below shows resistors connected in a circuit diagram.

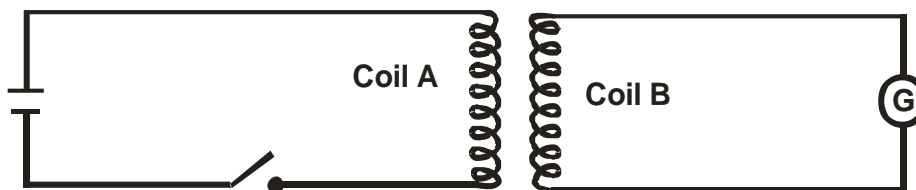


i) Determine the effective resistance of the above circuit. **(2 marks)**

ii) Determine the ammeter reading. **(2 marks)**

18. a) The figure 10 shows two coils A and B placed close to each other.

A is connected to a steady D.C supply and a switch, B is connected to a sensitive galvanometer.



i) The switch is now closed. State the observation made on the galvanometer. **(1 mark)**

---

---

ii) State what would be observed if the switch is then opened. **(1 mark)**

---

---

b) Define the term electromotive force (e.m.f) of a cell. **(1 mark)**

---

---

---

c) The graph in figure 11 shows how the voltage,  $v$ , varies with the current,  $I$  for a filament lamp.

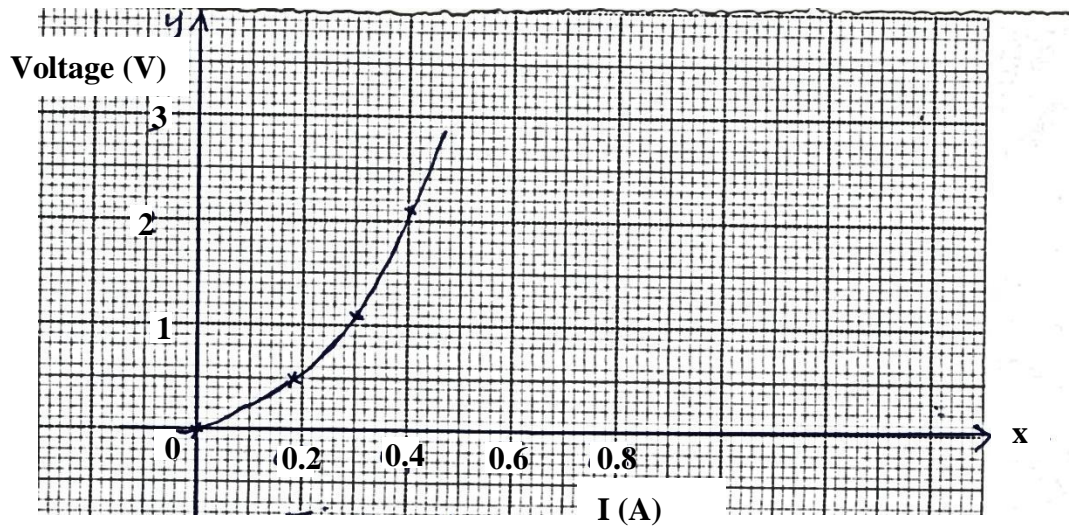


Figure 11

i) From the graph, determine the resistance of the lamp when a current of 0.4A flows. (2 marks)

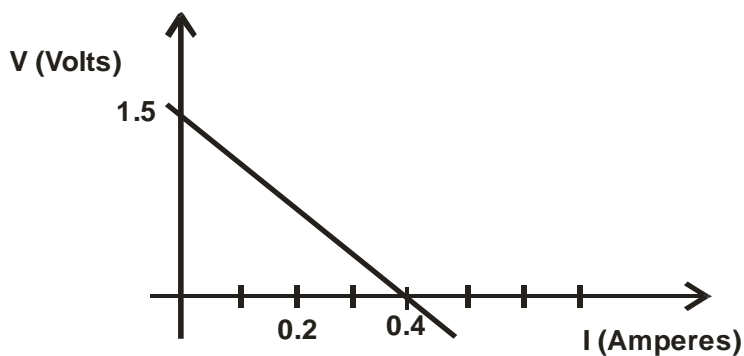
ii) State with a reason whether the device is ohmic or non-ohmic. (1 mark)

---



---

d) Figure 12 shows the variation of voltage against current.



Given that  $E = V + Ir$

Find from the graph,

i) The e.m.f,  $E$  of the cell. (1 mark)

ii) The internal resistance,  $r$ , of the cell. (3 marks)

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

### PHYSICS

#### PAPER 3

232/3

#### PRACTICAL

### CONFIDENTIAL

#### INSTRUCTIONS TO SCHOOLS

1. The information contained in this paper is to enable the head of school and the teacher in charge of Physics to make adequate preparations for this year's Physics practical examination. **NO ONE ELSE** should have access to this paper or acquire knowledge of its contents. Great care **MUST** be taken to ensure that the information herein does not reach the candidates either directly or indirectly.
2. The Physics teacher is **NOT** expected to perform the experiments.
3. The apparatus required by each candidate for the Physics practical examination are set out on page 2.  
It is expected that the ordinary apparatus of a Physics laboratory will be available.  
The Physics teacher should note that it is his/ her responsibility to ensure that each apparatus acquired for this examination agrees with the specification on pages 2.
4. The question paper will NOT be opened in advance.

#### QUESTION 1

##### **Each candidate to be provided with**

- *A pendulum bob with a piece of thread (70cm long) attached*
- *Two pieces of wooden block*
- *A clamp, boss and retort stand*
- *A metre rule*
- *Half metre rule attached to a wooden block*
- *Cellotape about 15cm long*
- *A stop watch*

## **QUESTION 2**

### **Part A**

- *A Nichrome wire, 1m long, mounted on mm scale and labelled PQ at the ends*
- *A Nichrome wire of length 15cm labelled X*
- *A 10 ohm resistor labelled Y*
- *Two dry cells (New – size D)*
- *A switch*
- *A voltmeter (0 – 2.5V or any other range)*
- *8 connecting wires (4 with crocodile clips)*

### **Part B**

- *Five optical pins and four office pins*
- *A plain white A4 piece of paper*
- *Soft board*
- *Glass slab*

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

# PHYSICS

### PAPER 3

TIME: 2½ HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

### INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the spaces provided above.
2. Sign and write the date of the examination in the spaces provided above.
3. This paper consists of **two** questions.
4. Answer **all** the questions in the spaces provided in the question paper.
5. **All** working must be clearly shown.
6. You are not allowed to start working with the apparatus for the first ¼ hours of the 2½ hours allowed for this paper. This time is to enable you read the question paper and make sure you have all the apparatus you may need.
- 7.

### FOR OFFICIAL USE ONLY

Question 1	a(i)	(ii)	(iii)	(iv)	(v)	b(i)	(ii)	Total
Maximum score	1	6	5	2	1	2	3	
Candidate's score								

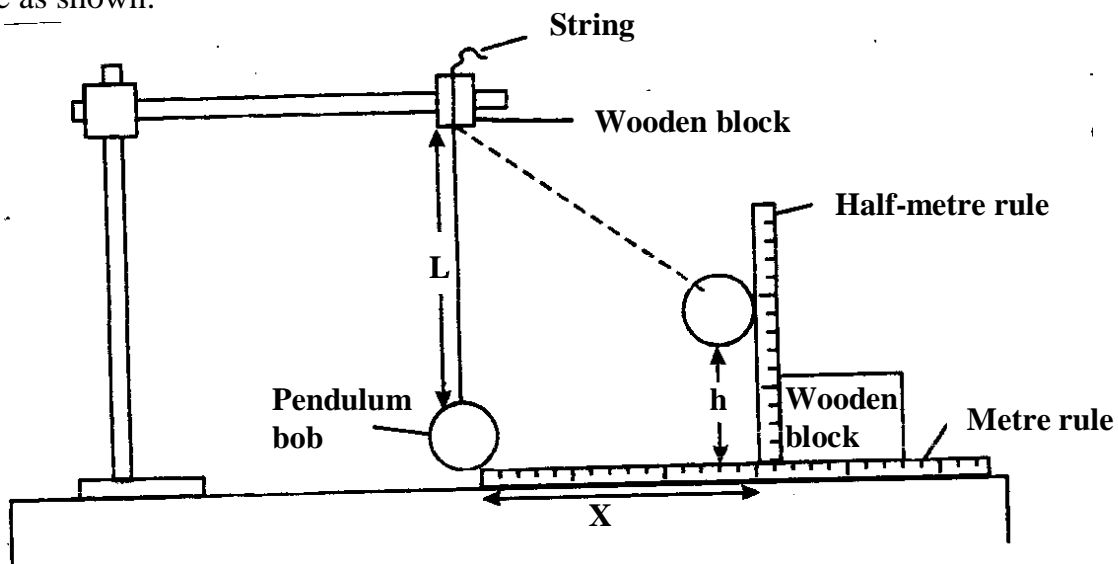
Question 2	a(iv)	b(iii)	c	d(i)	(ii)	e	h(i)	h(ii)	h(iii)	h(iv)	Total	Grand total
Maximum score	2	2	6	1	1	2	2	2	1	1		
Candidate's score												

1. You are provided with:

- A pendulum bob with a piece of thread attached
- Two wooden blocks
- Clamp, boss and retort stand
- Metre rule
- Half metre rule attached to wooden block
- Cellotape about 10cm long
- Stop watch

**Proceed as follows**

a) Fix the thread between the two wooden blocks and fasten in the clamp. Adjust the thread so that the length  $L$  shown below is 50.0cm. Fix the metre rule horizontally to the bench using the cellotape provided. Adjust the clamp so that the pendulum bob is next to the end of the metre rule as shown.



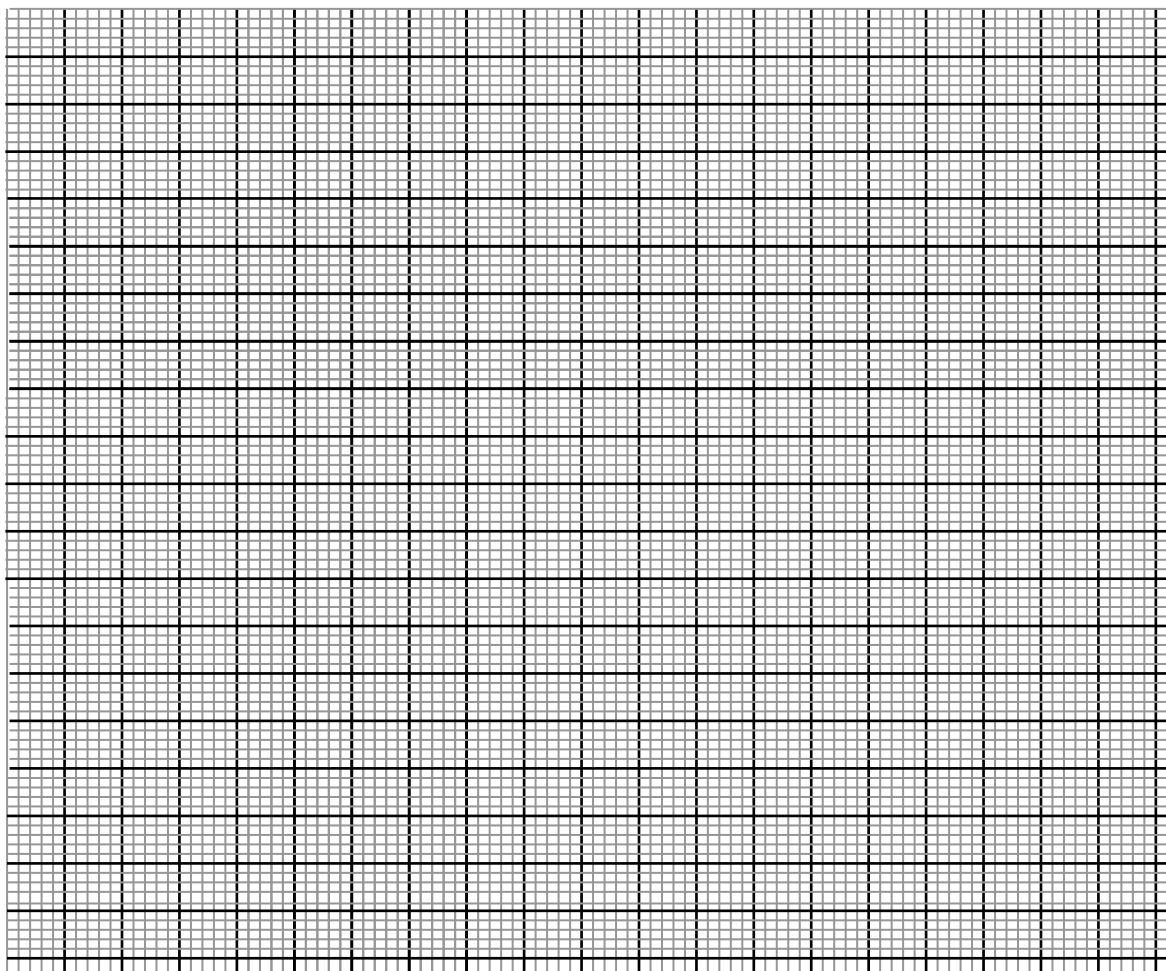
- i) Displace the marble by a horizontal distance  $x = 20\text{cm}$  and measure the corresponding vertical displacement  $h = \underline{\hspace{2cm}}$  cm **(1 mark)**
- ii) Repeat the experiment to find  $h$  for each of the following values of  $x$  : 25cm, 30cm, 35cm, 40cm and 45cm. Complete the table below. **(6 marks)**

$x$ (cm)	$h$ (cm)	$x^2$ (cm <sup>2</sup> )	$\frac{x^2}{h}$ (cm)
20		400	
25		625	
30		900	
35		1225	
40		1600	
45		2025	



iii) Plot the graph of  $\frac{x^2}{h}$  (y – axis) against h.

(5 marks)



iv) Determine the slope of the graph.

(2 marks)

v) From the graph, find the value of  $\frac{x^2}{h}$  when  $h = 0$ .

(1 mark)

b) Raise the clamp slightly without changing the length L so that the pendulum is free to swing.

i) Determine the period, T, for one oscillation by timing 20 oscillations.

Time for 20 oscillations = \_\_\_\_\_ seconds

(1 mark)

ii) Period T = \_\_\_\_\_ seconds

(1 mark)

iii) Calculate the value of P from the following equation.

(3 marks)

$$T = 2\pi \sqrt{\frac{P}{g}} \text{ where } g = 10\text{ms}^{-2}$$

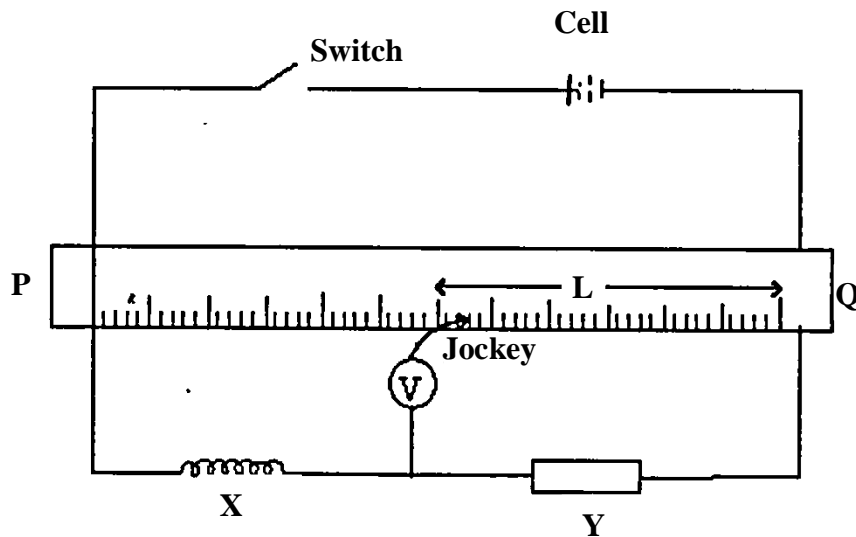
## 2. Part A

You are provided with:

- A Nichrome wire, 1m long, mounted on mm scale and labelled PQ at the ends.
- A Nichrome wire of length 15cm labelled X
- A 10 ohm resistor labelled Y
- A dry cell (New)
- A switch
- A voltmeter (0 – 2.5V) and
- 8 connecting wires (4 with crocodile clips)

**Proceed as follows**

- a) i) Set up your apparatus as shown.



- i) Close the switch, place the jockey at P and then at Q. (The voltmeter deflects in opposite directions)
- iii) Place the contact J, 5cm from Q and record the voltmeter reading.
- iv) Repeat this for values of L indicated in table 2. Record the corresponding values of V.

Length (cm)	5	15	25	35	45
V (volts)					

**Table 2**

**(2 marks)**

- b) i) Interchange the voltmeter terminals. Place jockey at P and make sure the voltmeter pointer deflects to the right.
- ii) Place the jockey on the wire 95cm from Q and record the voltmeter reading.
- iii) Repeat this for values of L given in table 3.

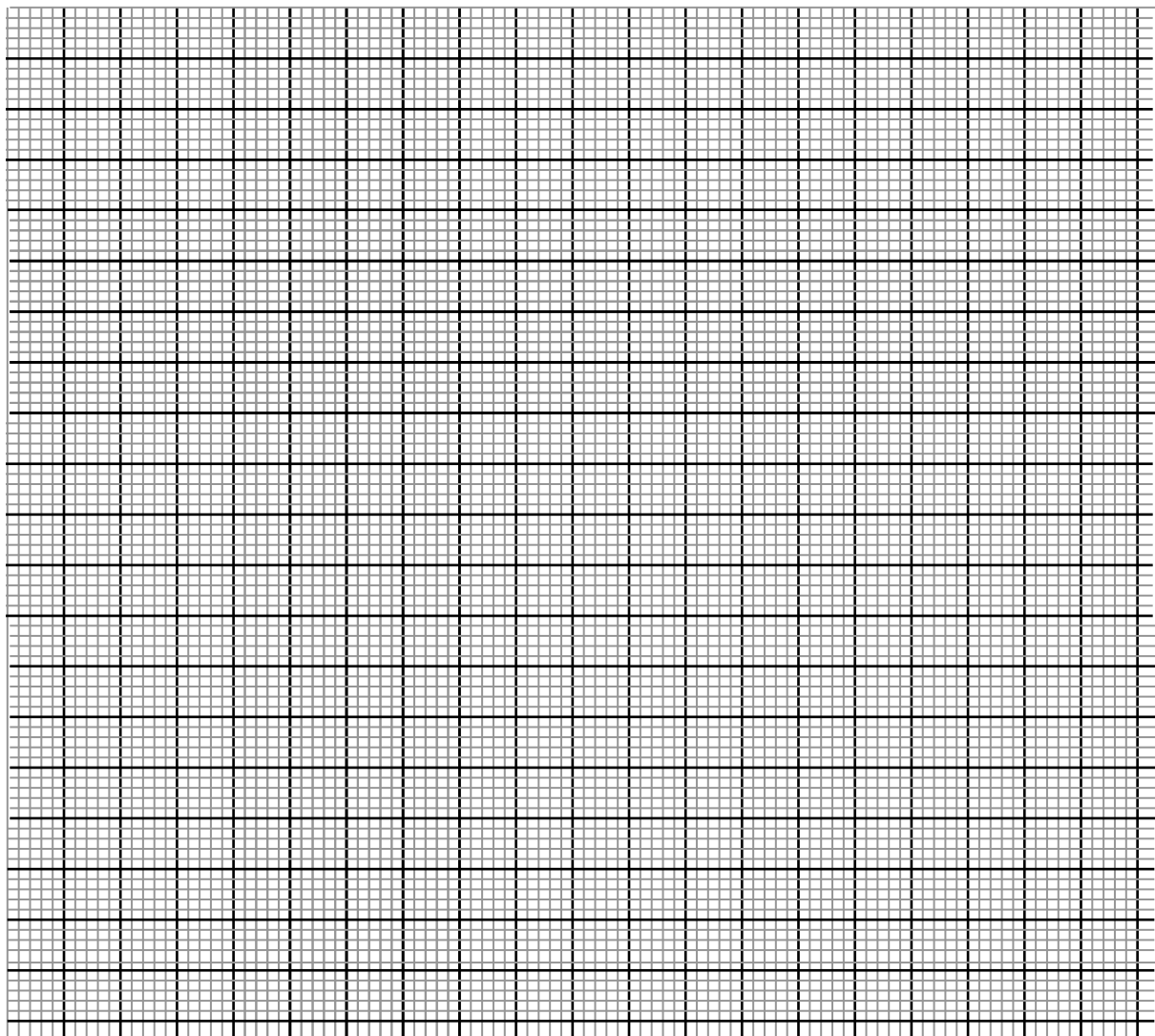
Length (cm)	95	90	85	80	75
V (volts)					

**Table 3**

**(2 marks)**

- c) On the same axis plot two graphs of V(y – axis) against L using the values in table 2 and table 3.

**(6 marks)**



**d)** From your graphs determine.

**i)** The value of  $V$  when  $L = 0$  **(1 mark)**

**ii)** The value of  $L$  where the two graphs intersect. **(1 mark)**

$L =$  \_\_\_\_\_

**e)** Work out the value of the unknown resistance of wire X,  $R_X$  using the expression.

Where  $R_y$  is the resistance of resistor  $y$ . **(2 marks)**

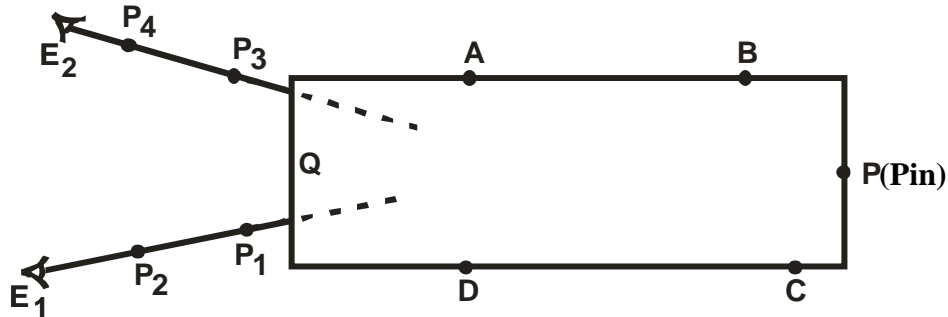
$$\frac{R_X}{R_Y} = \frac{L}{100-L}$$

## Part B

f) You are provided with the apparatus below.

- Five optical pins and four office pins
- A plain white A4 piece of paper
- Soft board
- Glass slab

Place the glass slab on the white piece of paper and trace its outline. Secure it in place (In its position) by the office pins A, B, C, D as shown in the diagram below.



- g) i) Fix the pin P firmly at the end of the slab and with your eye  $E_1$  at the opposite of the slab fix pin  $P_1$  and then  $P_2$  in line with the image I of the pin (See diagram)  
Remove the pins  $P_1$  and  $P_2$  and mark their positions  $P_1$  and  $P_2$  respectively.
- ii) Similarly fix  $P_3$  and then  $P_4$  so that they are in line with the image I of P. Again remove the pins  $P_3$  and  $P_4$  and mark their positions respectively. Remove the glass slab and pins ABCD
- h) Join  $P_1P_2$  produced with the tracing of the slab outline. Join  $P_3P_4$  produced to intersect line  $P_1P_2$ .

Label this point of intersection I, the supposed position of the image of pin P.

- i) Submit the plain paper used in the experiment. **(2 marks)**

ii) Measure the lengths QP and QI

QP **(1 mark)**

QI **(1 mark)**

iii) Determine the ratio  $\frac{QP}{QI}$  **(1 mark)**

iv) What is the significance of the ratio in (II) above? **(1 mark)**

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

# AGRICULTURE

### PAPER 1

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

### INSTRUCTIONS TO CANDIDATES

- 1) Write your name and index number in the spaces provided above.
- 2) Sign and write the date of the examination in the spaces provided above.
- 3) This paper consists of three sections: A, B and C.
- 4) Answer **all** the questions in section A and B and **any two** questions from section C.
- 5) All answers must be written in the spaces provided in this booklet.

### FOR OFFICIAL USE ONLY

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A	1 – 17	30	
B	18 – 21	20	
C		20	
		20	
	<b>TOTAL SCORE</b>	<b>90</b>	

**SECTION A** (30 MARKS)

*Answer ALL questions in this section.*

1. Give **four** methods of applying fertilizers to crops. (2 marks)

.....  
.....  
.....  
.....

2. State **four** beneficial biotic factors that influence agriculture. (2 marks)

.....  
.....  
.....  
.....

3. Give **four** branches of Agriculture. (2 marks)

.....  
.....  
.....  
.....

4. State **four** advantages of co-operative land tenure system. (2 marks)

.....  
.....  
.....  
.....

5. State **four** benefits of organic mulch in crop production. (2 marks)

.....  
.....  
.....  
.....

6. State **four** conditions under which shifting cultivation is practiced. (2 marks)

.....  
.....

.....  
.....  
7. Give **four** effects of mass wasting. (2 marks)

.....  
.....  
.....  
.....

8. Give **four** factors that affect the rooting of cuttings. (2 marks)

.....  
.....  
.....  
.....

9. Name **four** details that are included in a farm marketing record. (2 marks)

.....  
.....  
.....  
.....

10. Give **four** examples of product-product relationships in the management of agricultural enterprises. (2 marks)

.....  
.....  
.....  
.....

11. State **three** entries that are made in a journal. (1½ marks)

.....  
.....  
.....  
.....

12. Give **two** reasons for cutting back pyrethrum. (1 mark)

.....  
.....

13. State **three** parameters used to indicate national development. (1½ mark)

.....  
.....  
.....

14. State **four** symptoms of viral diseases in crops. (2 marks)

.....  
.....  
.....  
.....

15. Give **four** reasons for draining land as part of land reclamation. (2 marks)

.....  
.....  
.....  
.....  
.....

16. State **two** reasons for topping a pasture. (1 mark)

.....  
.....  
.....

17. State **two** advantages of metal pipes over plastic pipes in piping water in the farm. (1 mark)

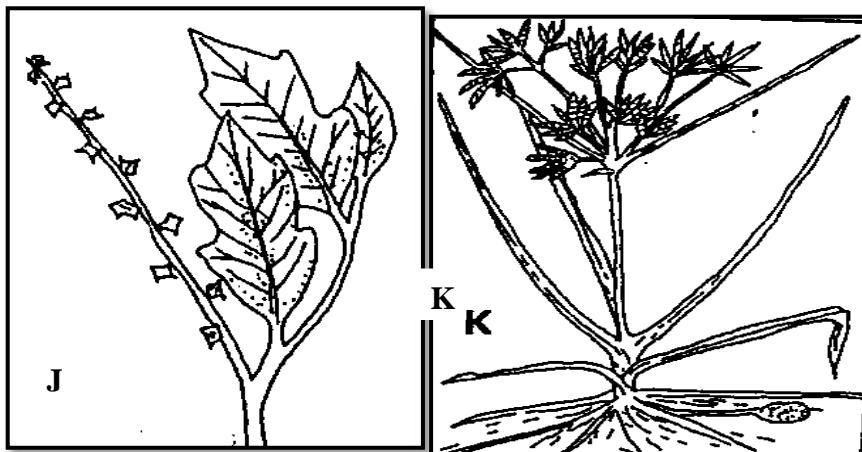
.....  
.....  
.....



**SECTION A (30 MARKS)**

**Answer ALL questions in this section.**

18. Study the following weeds and answer questions that follow.



a) Give the identity of weeds J and K. (2 marks)

J \_\_\_\_\_  
K \_\_\_\_\_

b) What makes weed K difficult to control? (1 mark)

.....  
.....

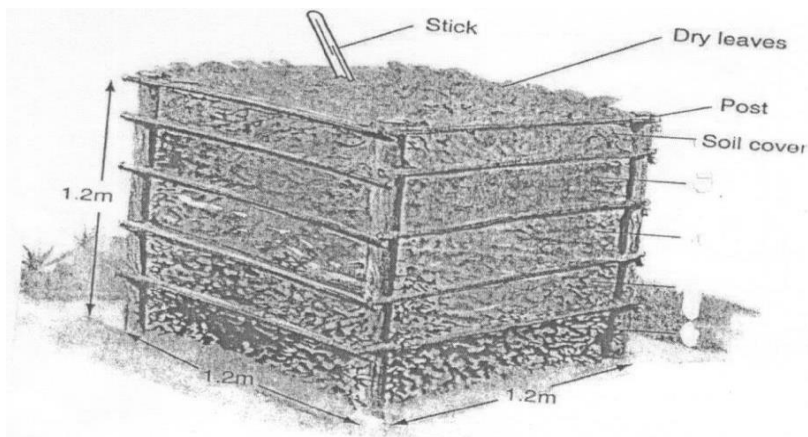
c) Give the economic importance of weed J. (1 mark)

.....  
.....

d) State **one** reason that makes weeds excellently adapted to various environments. (1 mark)

.....  
.....

19. Study the diagram below of a method of compost making and answer the questions that follow.



a) Identify the methods of compost making.

(1 mark)

.....

b) State **four** factors to consider when siting the structure.

(2 marks)

.....

.....

.....

.....

c) What is the function of the following materials in preparation of compost manure?

i) Top soil

(1 mark)

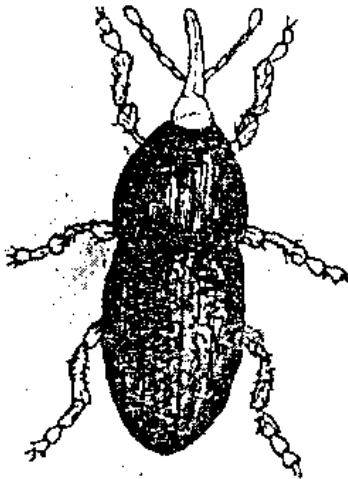
.....

ii) Wood ash

(1 mark)

.....

20. Two maize pests are shown in the diagram below. Study them and answer questions that follow.



A



B

a) Identify the pests in the diagram labeled A and B.

(1 mark)

A \_\_\_\_\_

B \_\_\_\_\_

b) At what stage of maize production does each pest damage the crop?

(2 marks)

A \_\_\_\_\_

B \_\_\_\_\_

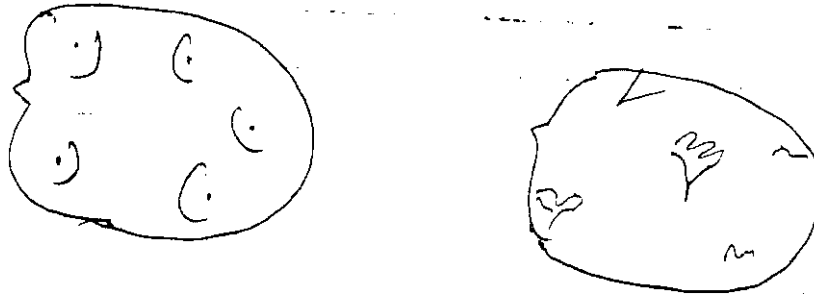
c) Give **one** way of controlling each of the pests in the field.

(2 marks)

.....

.....

21. The diagram below represents a vegetative material used to prepare a certain crop. Study them and answer the questions that follow.



- i) Give the name of the material illustrated above. **(1 mark)**  
 .....
- ii) Give the name of the preparation done on the material to make it ready for planting. **(1 mark)**  
 .....
- iii) State **three** advantages of carrying out the practice in (ii) above before planting. **(3 marks)**  
 .....  
 .....  
 .....

**SECTION C (40 MARKS)**

**Answer ANY TWO questions from this section in the spaces provided**

22. a) Describe the growing of dry bean seeds under the following subheadings. **(3 marks)**
- Selection and preparation of planting materials **(3 marks)**
  - Planting **(4 marks)**
  - Weeding **(3 marks)**
- b) Describe the environmental conditions that may lead to low crop yields. **(10 marks)**
23. a) Explain **six** factors considered in designing a crop rotation programme **(6 marks)**
- b) Explain the factors that influence the type of irrigation to be used in a farm. **(8 marks)**
- c) Explain **six** post-harvest practices carried out on production of maize. **(6 marks)**
24. a) Explain **five** advantages of budgeting in farming. **(10 marks)**
- b) Explain **five** various types of risks and uncertainties. **(5 marks)**
- c) Describe the importance of pruning perennial crops. **(5 marks)**

# NATIONAL SCHOOLS PREMOCK

**KCSE 2023 SERIES 1**

# **AGRICULTURE**

**PAPER 2**

**TIME: 2 HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

**443/2**

# **AGRICULTURE**

**PAPER 2**

## **INSTRUCTIONS TO CANDIDATES**

- 1) Write your name and index number in the spaces provided above.
- 2) Sign and write the date of the examination in the spaces provided above.
- 3) This paper consists of three sections: A, B and C.
- 4) Answer **all** the questions in section A and B and **any two** questions from section C.
- 5) All answers must be written in the spaces provided in this booklet.

## **FOR OFFICIAL USE ONLY**

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A	1 – 18	30	
B	19 – 22	20	
C		20	
		20	
	<b>TOTAL SCORE</b>	<b>90</b>	

**SECTION A** (30 MARKS)

*Answer **all** the questions in this section in the spaces provided.*

1. Give **three** factors that affect the quality of honey. (1½ marks)

.....  
.....  
.....

2. State **three** conditions that make a cow to withhold milk during milking. (1½ marks)

.....  
.....  
.....

3. State **four** signs of furrowing observed in pigs. (2 marks)

.....  
.....  
.....  
.....

4. Give **three** factors that may make birds to lay eggs on the floor in a deep litter. (1½ marks)

.....  
.....  
.....

5. Give **three** characteristics of clean and high quality milk. (1½ mark)

.....  
.....  
.....  
.....

6. Outline **four** control measures of round worms. (2 marks)

.....  
.....  
.....  
.....

7. State **four** signs of liver fluke infestation in cattle. (2 marks)

.....  
.....  
.....  
.....

8. Give **four** reasons of breeding in cattle. (2 marks)

.....  
.....  
.....  
.....

9. List **four** methods of preserving fish. (2 marks)

.....  
.....  
.....  
.....

10. Name **two** classes of livestock feedstuffs. (1 mark)

.....  
.....

11. Give **two** roles of ovaries in cows' reproductive system. (1 mark)

.....  
.....

12. Give **two** reasons for flushing in sheep. (1 mark)

.....  
.....

13. Give **four** reasons for treating timber used in construction of farm buildings. (2 marks)

.....  
.....  
.....  
.....

14. State **four** factors that influence the daily water intake in an animal. **(2 marks)**

.....  
.....  
.....  
.....

15. Name **two** functions of a clutch in the tractors transmission system. **(1 mark)**

.....  
.....

16. Give **four** characteristics of a good calf pen. **(2 marks)**

.....  
.....  
.....  
.....

17. State **four** factors that influence the choice of the poultry system of rearing to use. **(2 marks)**

.....  
.....  
.....  
.....

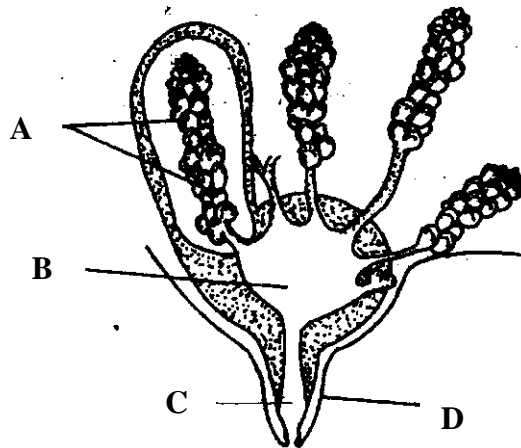
18. State **four** routine management practices carried out on a replacement stock that is a heifer. **(2 marks)**

.....  
.....  
.....  
.....  
.....

**SECTION B** (20 MARKS)

*Answer ALL questions in this section in the spaces provided.*

19. The diagram below is a cross section of part of a cow's udder.



a) Name the parts marked A, B, C and D. (2 marks)

- A \_\_\_\_\_
- B \_\_\_\_\_
- C \_\_\_\_\_
- D \_\_\_\_\_

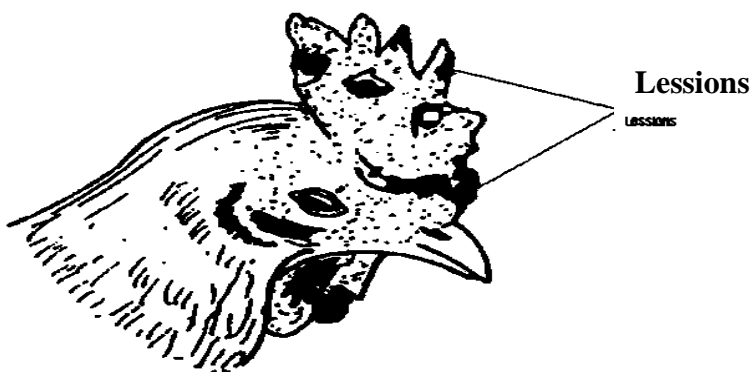
b) Name **two** hormones that control milk let down in a dairy cow. (2 marks)

.....  
.....

c) What is a dry cow therapy? (1 mark)

.....  
.....

20. The diagram below shows the head of a chicken having symptoms of a poultry disease.



a) Identify the disease. (1 mark)

.....  
.....



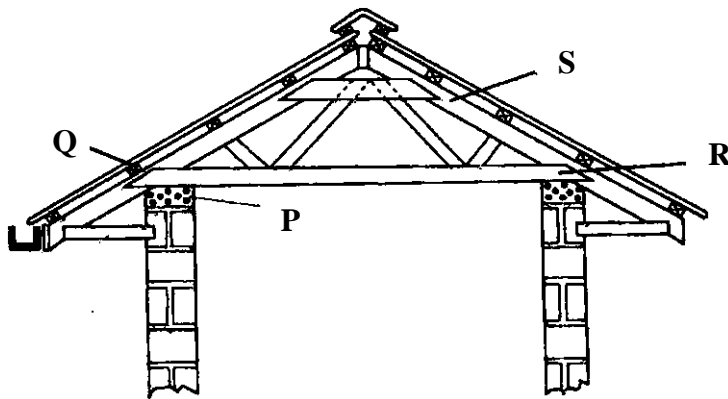
b) Give **two** reasons why the disease is of economic importance. (2 marks)

.....  
.....

c) Outline **two** methods of controlling the above disease. (2 marks)

.....  
.....

21. The following diagram shows parts of a roof. Study it carefully and answer the questions that follow.



a) Name the parts labeled **P, Q, R** and **S**. (2 marks)

**P** \_\_\_\_\_  
**Q** \_\_\_\_\_  
**R** \_\_\_\_\_  
**S** \_\_\_\_\_

b) State the functions of **P** and **Q**. (2 marks)

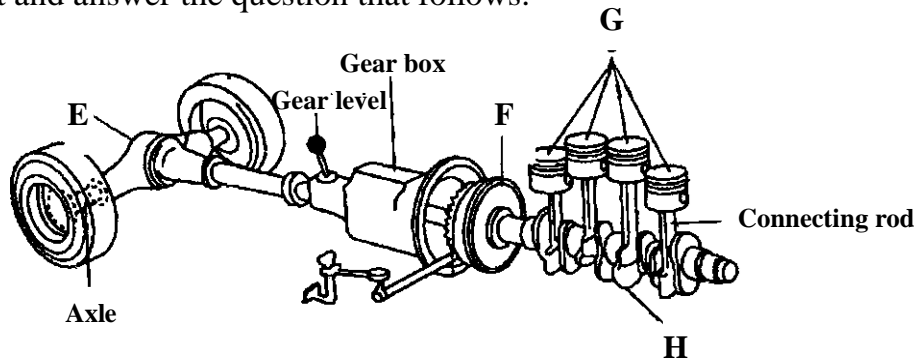
.....  
.....

c) Give **two** chemical preservatives for treating timber before use in the construction of farm structures. (2 marks)

.....  
.....

22. Below is a diagram of power transmission system of tractor engine.

Study it and answer the question that follows.



a) Name the parts labeled E, F, G and H. (2 marks)

E \_\_\_\_\_

F \_\_\_\_\_

G \_\_\_\_\_

H \_\_\_\_\_

b) State the functions of E and H. (2 marks)

E \_\_\_\_\_

H \_\_\_\_\_

### SECTION C (40 MARKS)

*Answer ANY TWO questions from this section.*

23. a) Describe **five** pre-disposing factors of livestock diseases. (5 marks)

b) Describe **six** mechanical methods of controlling ticks. (6 marks)

c) Describe the factors that affect milk composition of a cow. (9 marks)

24. a) State **five** advantages of farm mechanization. (5 marks)

b) Explain **five** advantages of using a mould board plough in seed bed preparation. (5 mks)

c) Describe the use of various materials in construction of a Kenya Top bar hive. (5 marks)

d) Outline the care and maintenance of a tractor water cooling system. (5 marks)

25. a) State **four** physical characteristics of a dairy cow. (4 marks)

b) State **nine** factors to consider when selecting livestock for breeding. (9 marks)

c) Describe milk fever in dairy cattle under the following sub-headings.

i) The cause of the disease (1 mark)

ii) Symptoms of the disease (4 marks)

iii) Control measures (2 marks)

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1 BUSINESS STUDIES

PAPER 1

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

565/1

## BUSINESS STUDIES

PAPER 1

TIME: 2 HOURS

### INSTRUCTIONS OF CANDIDATES

- Write your name, school and index number in the spaces provided above.
- Write the date of examination and sign in the spaces provided above.
- Answer **ALL** the questions.
- ALL** answers must be written in the spaces provided in this booklet.
- Do not remove any pages from this booklet.

### FOR OFFICIAL USE ONLY

QUESTIONS	1	2	3	4	5	6	7	8	9	10	11	12	13
MARKS													

QUESTIONS	14	15	16	17	18	19	20	21	22	23	24	25
MARKS												

GRAND TOTAL	
----------------	--

**Answer ALL the questions.**

1. Highlight **four** advantages of using modern technology in production. **(4 marks)**

.....

.....

.....

.....

2. State **four** types of complaints that a consumer organization may receive from consumers.

**(4 marks)**

.....

.....

.....

.....

3. Outline **four** features of parastatals.

**(4 marks)**

.....

.....

.....

.....

4. State **four** reasons why ethical practice is necessary in product promotion.

**(4 marks)**

.....

.....

.....

.....

.....

5. Outline **four** advantages of hire purchase to the buyer.

**(4 marks)**

.....

.....

.....

.....

6. State the ledger in which of the following accounts are kept. (4 marks)

Account	Ledger
Rent a/c	
Cash a/c	
Debtors a/c	
Creditors a/c	

7. Outline **four** factors that may make a producer to by-pass a wholesaler when distributing goods. (4 marks)

.....

.....

.....

.....

8. Country X is experiencing unfavorable terms of trade.  
State **four** factors that are likely lead to such a situation. (4 marks)

.....

.....

.....

.....

9. The following are some of the source documents used in accounting: credit note issued, cash sale receipt, credit note received and invoice issued. Match each of the following books of original entry with the relevant source document. (4 marks)

Book of original entry	Source document
Sales returns book	
Sales daily book	
Purchases return book	
Cash book	

**10. State four reasons why flower exporters would transport their produce by air rather than by sea. (4 marks)**

.....  
.....  
.....  
.....

**11. Outline four circumstances that may necessitate re-insurance. (4 marks)**

.....  
.....  
.....  
.....

**12. The following balances were extracted from the books of Saku traders on 31<sup>st</sup> march 2010.**

Fixed assets	300,000
Current assets	123, 700
Creditors	84,500
5 year loan	125,000

**Determine the net worth of the business as at 31<sup>st</sup> march 2010 . (4 marks)**

.....  
.....  
.....  
.....

**13. State four problems associated with development planning. (4 marks)**

.....  
.....  
.....  
.....

**14. Outline four demerits of indirect tax. (4 marks)**

.....  
.....  
.....  
.....

15. List **four** factors that may limit entrepreneurs in an area. (4 marks)

.....  
.....  
.....  
.....

16. Outline **four** challenges that may be encountered when measuring national income using the output approach. (4 marks)

.....  
.....  
.....  
.....

17. The table below represents the demand schedule for tea leaves in 6 months in 2015.

Months	1	2	3	4	5	6
Quantity (kgs)	200	400	600	800	1000	1200

Outline **four** causes of the trend in the table. (4 marks)

.....  
.....  
.....  
.....

18. State **four** basic features of a market. (4 marks)

.....  
.....  
.....  
.....

19. Sate **four** external factors that may negatively influence the operation of a business.(4 marks)

.....  
.....  
.....  
.....

20. Highlight **four** negative effects of inflation.

(4 marks)

.....

.....

.....

.....

21. Outline **four** benefits to a business that uses its own warehouse.

(4 marks)

.....

.....

.....

.....

22. The following balances were extracted from the books of Wekesa Traders on 31<sup>st</sup> December 2009.

<b>Item</b>	<b>Sh</b>
Capital	500,000
Cash in Hand	20,000
Building	200,000
Furniture	25,000
Motor vehicle	400,000
Creditors	18,000
Debtors	36,000
Bank	100,000
Bank loan	263,000

Using the above information prepare Wekesa traders trial balance as at 31<sup>st</sup> December 2009 .

(4 marks)



23. Outline **four** reasons why hypermarkets are becoming increasingly popular in Kenya.  
(4 marks)

.....  
.....  
.....  
.....

24. The table below shows the age distribution of a country.

Age in Years	% population
0 – 15	45
16 – 55	31
56 and above	24

Highlight **four** negative economic implication of this age distribution to the country.

(4 marks)

.....  
.....  
.....  
.....  
.....

25. Outline **four** measures that a manager can take to improve the working environment in an office. (4 marks)

.....  
.....  
.....  
.....

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1 BUSINESS STUDIES

PAPER 2

TIME: 2½ HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

565/2

## BUSINESS STUDIES

PAPER 2

TIME: 2½ HOURS

### INSTRUCTIONS TO CANDIDATES

1. Write your name, school and index number in the spaces provided above.
2. Write the date of examination and sign in the spaces provided above.
3. This paper consists of 6 questions.
4. Answer *any five* questions.

### FOR EXAMINER'S USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1	20	
2	20	
3	20	
4	20	
5	20	
6	20	
	Total score	

Answer any five questions

1. a) Discuss **five** causes of unemployment in Kenya today. (10 marks)  
b) Explain **five** roles of transport to the economy of a country. (10 marks)
  
2. a) Discus **five** roles of public finance. (10 marks)  
b) Explain **five** barriers to effective communication. (10 marks)
  
3. a) Highlight **four** problems likely to be faced by consumers when a firm operates as a Monopoly. (8 marks)  
b) The following trial balance was extracted from the books of Tumaini Traders as at 30<sup>th</sup> June 2015.

DETAILS	DR	CR
Stock on 1 <sup>st</sup> July 2014	180,000	
Debtors and creditors	195,000	120,000
Discounts	75,000	96,000
Sales and purchases	1,200,000	1,740,000
Premises	1,630,000	
Carriage outwards	24,000	
Returns	60,000	150,000
Fixture and fittings	300,000	
Carriage inwards	100,000	
Machinery	600,000	
Commissions	48,000	42,000
Capital		2,454,000
Wages & salaries	90,000	
Cash in Bank	420,000	
Rent income		110,000
	4,712,000	4,712,000

**Additional information**

Closing stock was valued at sh 210,000.

**Required**

- i) Prepare a trading, profit and loss account for the year ended 30<sup>th</sup> June 2015. (8 marks)
- ii) Prepare Tumaini Trades balance sheet as at 31<sup>st</sup> June 2015. (4 marks)
  
4. a) Explain **five** ways in which the nature of a commodity may influence its distribution. (10 marks)  
b) Outline **five** differences between a public limited company and partnership form of a business. (10 marks)
  
5. a) Explain **five** reasons for continued existence of small firms alongside large firms. (10 marks)  
b) Explain **five** benefits enjoyed by a firm that has expanded its scale operations. (10 marks)

6. a) Explain **five** instruments of monetary policy a central bank may use to reduce money supply in a country. **(10 marks)**

b) On January 2005 Njeri traders had the following transactions.

2005

January 1: Started business with capital sh.80,000 cash and sh.200,000 at the bank

2: Bought furniture by cheque sh.20,000

3: Bought goods by cheque sh.70,000

8: Received cash from Chemai sh.19,000 having allowed him a cash discount of sh.1,000

9: Paid the following accounts by cheque:-

Muthoni sh.30,000, Salim sh.15,000 and Kiptoo sh.26,000 having deducted 10% discount in each case

12: Cash sales sh.14,000, paid for postage in cash sh.2,000

16: Received a cheque of sh.27,500 from Ngondi in full settlements of his account of sh.30,000

20: Received cheque of the following amounts from: Adijah sh.18,000, Adongo sh.28,800 and Maranga sh.12,600. The business had allowed each of them a discount of 10%

**Required:**

Prepare a three column cashbook and balance it off.

**(10 marks)**

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

### CHRISTIAN RELIGIOUS EDUCATION

#### PAPER 1

TIME: 2½ HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

313/1

### CHRISTIAN RELIGIOUS EDUCATION

#### PAPER 1

TIME: 2½ HOURS

#### INSTRUCTIONS TO CANDIDATES

1. Write your name, school and index number in the spaces provided above.
2. Write the date of examination and sign in the spaces provided above.
3. This paper consists of *six* questions.
4. Answer any **five** questions in the answer booklet provided.

#### FOR EXAMINER'S USE ONLY

Question	1	2	3	4	5	6	Candidates total score
Candidates Score							

**Answer any five questions**

1. a) Give reasons why the Bible is referred to as a library. **(5 marks)**  
b) Outline **five** effects of translation of the Bible into local languages. **(10 marks)**  
c) State **five** ways through which the church is spreading the word of God in Kenya. **(5 mks)**
  
2. a) State the characteristics of the covenant between God and Abraham. **(5 marks)**  
b) Explain the importance of God's covenant with Abraham. **(10 marks)**  
c) What lessons do Christians learn from the incident when Abraham was willing to sacrifice his son Isaac? **(5 marks)**
  
3. a) Describe the contest between prophet Elijah and the prophets of Baal at Mount Carmel (1<sup>st</sup> kings 18:17 – 40). **(7 marks)**  
b) Give **four** conditions that made it difficult for Prophet Elijah to stop idolatry in Israel. **(8 marks)**  
c) Identify **five** qualities of Prophet Elijah that a Christian leader should possess. **(5 marks)**
  
4. a) Give **four** similarities between prophets in the Old Testament and Traditional African Communities. **(8 marks)**  
b) State **four** ways in which the rich oppressed the poor during the time of Prophet Amos. **(8 marks)**  
c) State the relevance of Prophet Amos' teaching on election of Israel to Christians in Kenya today. **(4 marks)**
  
5. a) Outline the stages followed in the renewal of the covenant during the time of Nehemiah. **(8 marks)**  
b) Give **six** reasons why Nehemiah carried out the renewal of the covenant in Judah. **(6 mks)**  
c) What lessons do Christians learn from renewal of the covenant by Nehemiah? **(6 marks)**
  
6. a) Describe the Traditional African views of a community. **(8 marks)**  
b) Explain **six** factors that have affected the Traditional African people's dependence on God. **(6 marks)**  
c) Outline **six** similarities between Christian and traditional African ways of showing respect to God. **(6 marks)**

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

### CHRISTIAN RELIGIOUS EDUCATION

#### PAPER 2

TIME: 2½ HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

313/2

### CHRISTIAN RELIGIOUS EDUCATION

#### PAPER 2

TIME: 2½ HOURS

#### INSTRUCTIONS TO CANDIDATES

1. Write your name, school and index number in the spaces provided above.
2. Write the date of examination and sign in the spaces provided above.
3. This paper consists of *six* questions.
4. Answer any **five** questions in the answer booklet provided.

#### FOR EXAMINER'S USE ONLY

Question	1	2	3	4	5	6	Candidates total score
Candidates Score							

Answer any *five* questions

1. a) Basing your answer on the infancy narratives in Luke 1:5 – 56, describe what took place when Mary visited Elizabeth. (6 marks)  
b) Identify **six** lessons that Christians learn from the lives of Zachariah and Elizabeth. (6 marks)  
c) State **eight** ways through which Christians in Kenya express their joy for the birth of Jesus. (8 marks)
  
2. a) Explain the reasons why Jesus used parables in His teachings. (8 marks)  
b) Why were people amazed or astonished at the way Jesus taught? (6 marks)  
c) What lessons can Christians learn from the parable of the Mustard Seed? (6 marks)
  
3. a) With reference to the sermon on the plain, state **five** teachings of Jesus on how human beings should relate to one another. (5 marks)  
b) Describe the incident in which Jesus calmed the storm in Luke 8:22 – 25. (10 marks)  
c) Identify **five** virtues that Christians learn from the miracle of the feeding of the five thousand. (5 marks)
  
4. a) Identify **five** fruits of the Holy Spirit taught by Saint Paul in Galatians 5:22 – 23. (5 mks)  
b) Explain the teachings of Jesus about the Vine and the Branches in John 15:1 – 10 reveal about the unity of believers. (8 marks)  
c) Give **seven** ways in which Christians prevent division in the church today (7 marks)
  
5. a) Outline **eight** Christian teachings on work. (8 marks)  
b) State the role and professional ethics in a work place. (6 marks)  
c) Identify **six** ways which the church is helping to reduce the rate of unemployment in Kenya today. (6 marks)
  
6. a) Give **six** reasons why it is important to have laws in a country. (6 marks)  
b) Outline **eight** problems related to maintenance of law and order. (8 marks)  
c) Identify ways in which Kenya help those who have been released from prison. (6 marks)



# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

# HISTORY AND GOVERNMENT

## PAPER 1

TIME: 2½ HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

311/1

# HISTORY & GOVERNMENT

## PAPER 1

TIME: 2½ HOURS

### INSTRUCTIONS TO CANDIDATES

- 1) This paper consists of **three** sections A, B and C.
- 2) Answer **ALL** the questions in section A, **THREE** questions from section B and **TWO** questions from Section C.
- 3) Answers to **all** the questions **must be** written in the answer booklet provided.
- 4) Candidates should answer the questions in English.

## **SECTION A (25 MARKS)**

*Answer ALL the questions in this section.*

1. Identify **one** advantage of using oral traditions as a source of information in History and Government. **(1 mark)**
2. Which Kalenjin speakers remained at Mt. Elgon during their migration and settlement during 19<sup>th</sup> century? **(2 marks)**
3. Give the **main** reason why the Portuguese conquered East Africa so easily. **(1 mark)**
4. Give **two** political rights of the youth guaranteed in the new constitution of Kenya. **(2 marks)**
5. How does the constitution guarantee national unity? **(2 marks)**
6. State **one** way in which East Africa slave trade undermined local industries. **(1 mark)**
7. What was the **main** reason for calling of the Anglo-Germany treaty of 1890? **(1 mark)**
8. What was the **main** outcome of the Devonshire White Paper of 1923? **(1 mark)**
9. Give **two** reasons for the calling of the Second Lancaster House Conference of 1962. **(2 marks)**
10. State the importance of affiliation of the Kenya Federation of Labour under Tom Mboya to the International Trade Union. **(1 mark)**
11. What was the **main** reason why the British compelled the Africans to pay hut tax?(**1 mark**)
12. Give **two** reasons why the Akamba exhibited mixed reaction to establishment of colonial rule. **(2 marks)**
13. What is contained in a national budget? **(2 marks)**
14. Give **one** house committee of parliament which deals with government financial matters. **(1 mark)**
15. Give **two** occasions when the president attends parliament. **(2 marks)**
16. Identify **two** political events that threatened the stability of Kenya between 1975 and 1978. **(2 marks)**
17. Name the fund into which all government revenue is paid. **(1 mark)**

## **SECTION B (45 MARKS)**

*Answer any three questions from this section.*

18. a) Give **three** social reasons for the coming of the Christian missionaries to Kenya. (3 mks)  
b) Explain **six** factors that facilitated the spread of Christianity in Kenya. (12 marks)
19. a) Highlight **five** reasons leading African communities to collaborate with colonialists. (5 marks)  
b) Explain the results of the Maasai collaboration with the British. (10 marks)
20. a) State **three** political development which hastened the achievement of independence in Kenya between 1945 and 1963. (3 marks)  
b) Discuss **six** roles of Wangari Maathai in the history of Kenya. (12 marks)
21. a) State **five** internal factors that led to the revival of Multi-party politics in Kenya from 1991. (5 marks)  
b) Explain **five** challenges experienced in implementing multi-party democracy in Kenya. (10 marks)

## **SECTION C (30 MARKS)**

*Answer any two questions from this section.*

22. a) How does the Kenyan government ensure that rule of law is upheld in the country? (3 marks)  
b) Explain **six** efforts made by the government of Kenya to promote national unity. (12Mks)
23. a) Outline **three** responsibilities of the secretary to the Cabinet. (3 marks)  
b) Discuss the functions of the Supreme Court. (12 marks)
24. a) Identify **five** duties of a returning officer. (5 marks)  
b) Discuss the electoral process in Kenya. (10 marks)

# NATIONAL SCHOOLS PREMOCK

**KCSE 2023 SERIES 1**

## **HISTORY AND GOVERNMENT**

**PAPER 2**

**TIME: 2½ HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

311/2

## **HISTORY & GOVERNMENT**

**PAPER 2**

**TIME: 2½ HOURS**

### **INSTRUCTIONS TO CANDIDATES**

- 1) This paper consists of **three** sections A, B and C.
- 2) Answer **ALL** the questions in section A, **THREE** questions from section B and **TWO** questions from Section C.
- 3) Answers to **all** the questions **must be** written in the answer booklet provided.
- 4) Candidates should answer the questions in English.

## **SECTION A (25 MARKS)**

***Answer ALL the questions in this section.***

1. Name **one** distinct stage in which evolution of man took place. **(1 mark)**
2. Mention **one** chemical dating method used by the archeologists. **(1 mark)**
3. Identify **two** hunting methods used by early man. **(2 marks)**
4. State **two** theories that explain the origin and spread of agriculture. **(2 marks)**
5. What was the main reason behind the spread of agriculture in USA? **(1 mark)**
6. Give **two** characteristic of currency as a method of trade. **(2 marks)**
7. Apart from Ghana and Mali, name any other empire that developed as a result of Trans-Saharan Trade. **(1 mark)**
8. Define “space age”. **(1 mark)**
9. Name the people accredited to the invention of stone tablets as a means of communication. **(1 mark)**
10. Highlight **two** major factors that contributed to the decline of Meroe as an urban centre. **(2 marks)**
11. Mention **one** activity that took place during the Odwira festival. **(1 mark)**
12. Name **two** leaders who prepared African forces in majimaji rebellion. **(2 marks)**
13. State **two** types of nationalism expressed in South Africa. **(2 marks)**
14. Identify the rival movement formed in Mozambique to counter FRELIMO in 1965. **(1 mark)**
15. Name **two** weapons that were introduced in a bid to end the stalemate during the First World War. **(2 marks)**
16. Name **two** wars that occurred because of Cold War. **(2 marks)**
17. Identify the organ that keeps annual register of voter in Britain. **(1 mark)**

## **SECTION B (45 MARKS)**

*Answer any three questions from this section.*

18. a) State **five** factors that favoured the beginning of early agriculture during the New Stone Age. **(5 marks)**  
b) Explain **five** effects of early agriculture in Egypt. **(10 marks)**
19. a) Identify **three** sub-groups of the Shona. **(3 marks)**  
b) Discuss the political organization of the Shona. **(12 marks)**
20. a) Identify **three** factors that led to the industrial recovery of West Germany after World War II. **(3 marks)**  
b) Explain **six** challenges facing industrialization in India. **(12 marks)**
21. a) Outline **three** economic factors that led to the scramble and partition of Africa. **(3 mks)**  
b) Explain **six** reasons why the Mandika resistance took long to suppress. **(12 marks)**

## **SECTION C (30 MARKS)**

*Answer any two questions from this section*

22. a) Identify **three** main bodies of the League of Nations. **(3 marks)**  
b) Explain **six** problems faced by the League of Nations. **(12 marks)**
23. a) State **five** causes of Second World War. **(5 marks)**  
b) Explain **five** reasons why the Axis were defeated during the Second World War. **(10 marks)**
24. a) State **five** symbolic and ceremonial significance of the British Monarch. **(5 marks)**  
b) Explain **five** ways in which powers of an American president are checked. **(10 marks)**

# NATIONAL SCHOOLS PREMOCK

**KCSE 2023 SERIES 1**

## **GEOGRAPHY**

**PAPER 1**

**TIME: 3¼ HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

**312/1**

## **GEOGRAPHY**

**PAPER 1**

**TIME: 2 HOURS 45 MINUTES**

### **INSTRUCTIONS TO CANDIDATES**

- 1) *This paper has **two** sections, A and B.*
- 2) *Answer **all** the questions in section A.*
- 3) *Answer question **6** and any other **two** questions from section B.*
- 4) *All answers **must** be written in the answer booklet provided.*
- 5) *Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing*

## **SECTION A (25 MARKS)**

### **Answer ALL the questions in this section**

1. a) State briefly **three** ways how air pressure influences the weather of a place. **(3 marks)**  
b) Identify **two** Global winds that influence the climate of Kenya. **(2 marks)**
2. a) Give **two** examples of chemically formed sedimentary rocks. **(2 marks)**  
b) State **three** conditions necessary for the growth of coral. **(3 marks)**
3. a) Name the **two** theories that explain the origin of the earth. **(2 marks)**  
b) Give **three** proofs that the earth is oblate spheroid. **(3 marks)**
4. a) Name the categories of lakes formed by earth movement. **(2 marks)**  
b) Give **two** examples from East Africa of each category named in (a). **(2 marks)**
5. a) Define of hydrological cycle. **(2 marks)**  
b) State **four** factors that determine the amount of water that sinks into the ground or flows on the surface. **(4 marks)**

## **SECTION B (75 MARKS)**

### **Answer question 6 and any other two questions from this section.**

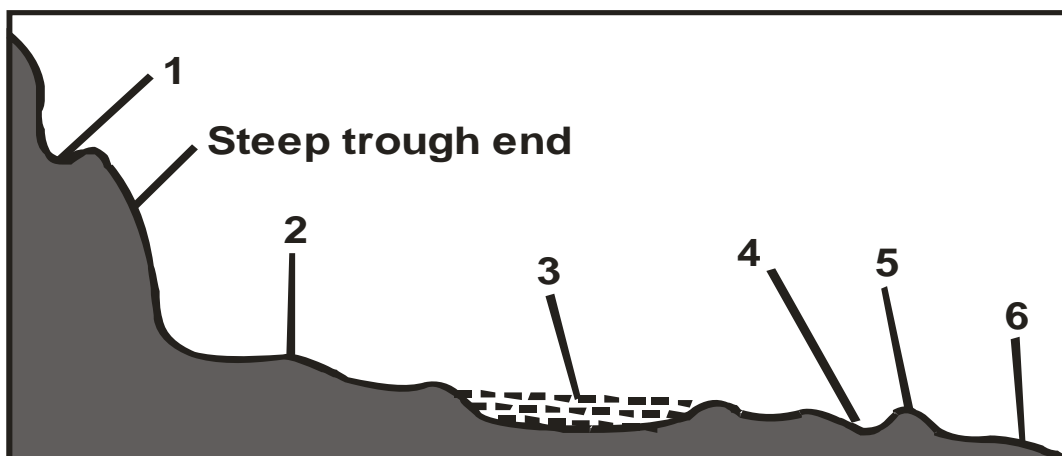
6. Study the map of Kitale 1:50,000 (sheet 75/3) provided and answer the following questions.
  - a) i) Identify **two** human made features found at the grid square 2320. **(2 marks)**  
ii) What is the altitude of the highest point in the area covered by the map? **(2 marks)**  
iii) Give **three** types of natural vegetation found in the area East of Easting 40 and North of Northing 27. **(3 marks)**
  - b) i) What is the bearing of air photo principle point at grid square 2931 from the air photo principle point at grid square 3426. **(2 marks)**  
ii) Measure the distance of the dry weather road (C640) from the junction at point M(345142) to the junction at N(416200) give your answer in kilometres. **(2 marks)**
  - c) i) Draw a rectangle measuring 3 cm by 4 cm to represent the area in the map extract bounded by Easting's 28 and 31 and Northing's 11 and 15. **(1 mark)**  
ii) On the rectangle drawn, mark and name the following;
    - Loose surface road **(1 mark)**
    - Air photo principle point **(1 mark)**
    - Swamp **(1 mark)**
    - Pond **(1 mark)**
  - d) i) Identify **four** social services offered in Kitale Municipality. **(4 marks)**  
ii) Describe the drainage of the area covered by the map. **(5 marks)**



7. Use the map below to answer questions (a) and (b).



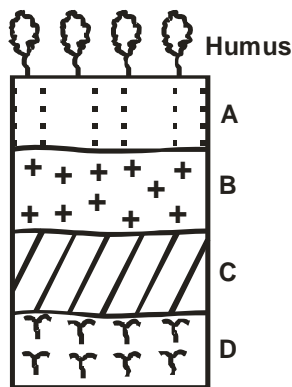
- a) Name;
- i) The type of climate found in the shaded area marked Q. (1 mark)
  - ii) The ocean current marked R and S. (2 marks)
- b) Describe the characteristics of the type of climate found in the shaded area marked T. (8 marks)
- c) Explain how the following factors influence climate.
- i) Altitude (4 marks)
  - ii) Distance from the sea (4 marks)
- d) i) Explain **two** effects of climate change to the physical environment. (4 marks)
- ii) State **two** climatical conditions experienced in the Sahara desert. (2 marks)
8. a) i) Identify **two** factors that influence glacial erosion. (2 marks)
- ii) The diagram below shows the long profile of a glacial trough. Study it carefully and answer the questions that follow.



- Name the parts labeled 1 to 6. (6 marks)
- b) Describe the **four** various ways in which tills are formed at the coast. (8 marks)
- c) i) What is an erratic? (2 marks)
- ii) Give **three** examples of areas with erratics. (3 marks)
- d) A field study was carried out in an area affected by wind action.
- i) List **two** types of interviews the study would have made use of. (2 marks)
  - ii) Give **two** problems the researcher would have experienced. (2 marks)

9. a) What is natural vegetation? **(2 marks)**
- b) i) Give the types of grassland vegetation found in the following countries. **(3 marks)**
- New Zealand
  - Argentina
  - South Africa
- ii) State **two** factors why mountain tops have no vegetation. **(2 marks)**
- c) i) Explain **four** ways in which coniferous forest is adapted to the climatic conditions. **(8 marks)**
- ii) Explain how the following factors influence the distribution of vegetation.
- Altitude **(2 marks)**
  - Human beings **(2 marks)**
- d) You are planning to carry out a fieldstudy on the forest vegetation near your school.
- i) State **four** reasons why it is necessary to have a route map. **(4 marks)**
- ii) Give **two** reasons why you need a tape measure. **(2 marks)**

10. a) i) What is soil? **(2 marks)**
- ii) Give **three** components of soils. **(3 marks)**
- b) The diagram below shows different layers of soil. Use it to answer questions b) i), ii), iii).



A SOIL PROFILE

- i) Name the soil layers marked B, C, and D. **(3 marks)**
- ii) Give **two** main processes of soil formation which takes place in horizon A. **(2 marks)**
- iii) Name **four** characteristics of soil in horizon B. **(4 marks)**
- c) Explain how the following helps in the maintenance of soil fertility and quality.
- Crop rotation **(2 marks)**
  - Mixed farming **(2 marks)**
  - Bush fallowing **(2 marks)**
- d) State **five** significances of soils to human activities. **(5 marks)**

# NATIONAL SCHOOLS PREMOCK

**KCSE 2023 SERIES 1**

# **GEOGRAPHY**

**PAPER 2**

**TIME: 3¼ HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

**312/2**

# **GEOGRAPHY**

**PAPER 2**

**TIME: 2 HOURS 45 MINUTES**

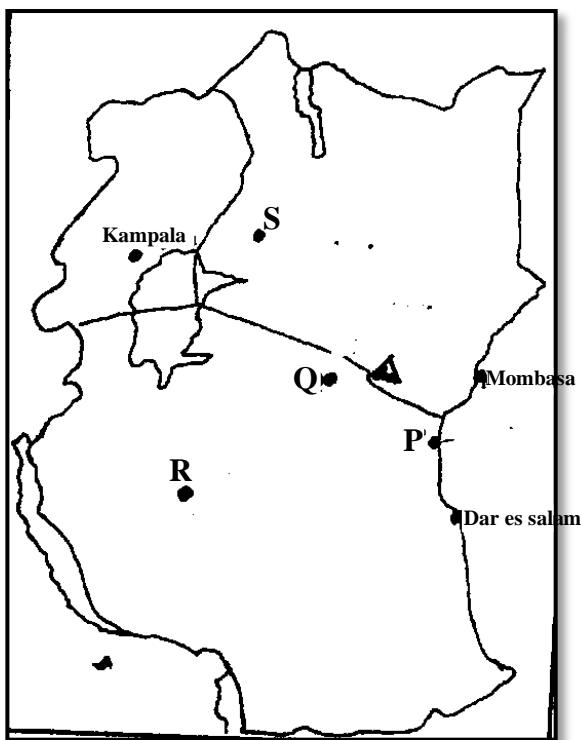
## **INSTRUCTIONS TO CANDIDATES**

- 1) *This paper has **two** sections, A and B.*
- 2) *Answer **all** the questions in section A.*
- 3) *Answer question **6** and any other **two** questions from section B.*
- 4) *All answers **must** be written in the answer booklet provided.*
- 5) *Candidate should answer the questions in English.*

## SECTION A (25 MARKS)

*Answer ALL the questions in this section*

1. a) Name any **two** underground mining methods. (2 marks)  
b) State any **three** negative effects of mining on the environment. (3 marks)
2. a) List down **three** human factors that favour wildlife conservation. (3 marks)  
b) State **two** advantages of domestic tourism in Kenya. (2 marks)
3. a) What are floods? (2 marks)  
b) Name **three** rivers in Kenya which cause large scale flooding. (3 marks)
4. a) Define the following terms;  
i) Fertility rate (1 mark)  
ii) Mortality rate (1 mark)  
b) State **three** types of information that may be derived from an age-sex pyramid. (3 marks)
5. Use the map of East Africa below to answer the questions that follow.



- a) Name the towns marked P, Q and R. (3 marks)
- b) State **two** major functions of the town marked S. (2 marks)

## SECTION B (75 MARKS)

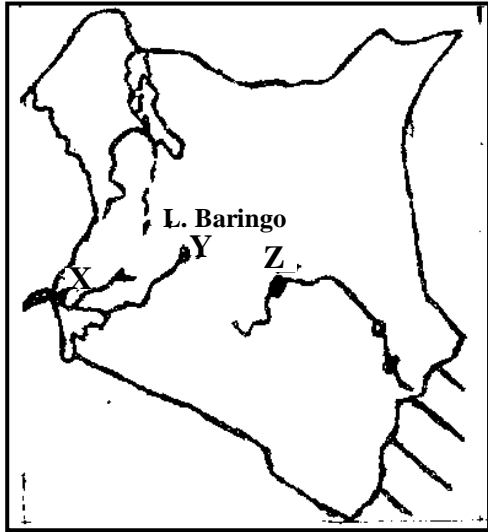
*Answer question 6 and any other two questions from this section*

6. The table below shows the value of export crops from Kenya in the year 1995. Use it to answer the questions below.

Crop / Year	1995
Maize	224,000,000
Coffee	168,000,000
Tea	320,000,000
Horticultural	190,000,000
TOTAL	902,000,000

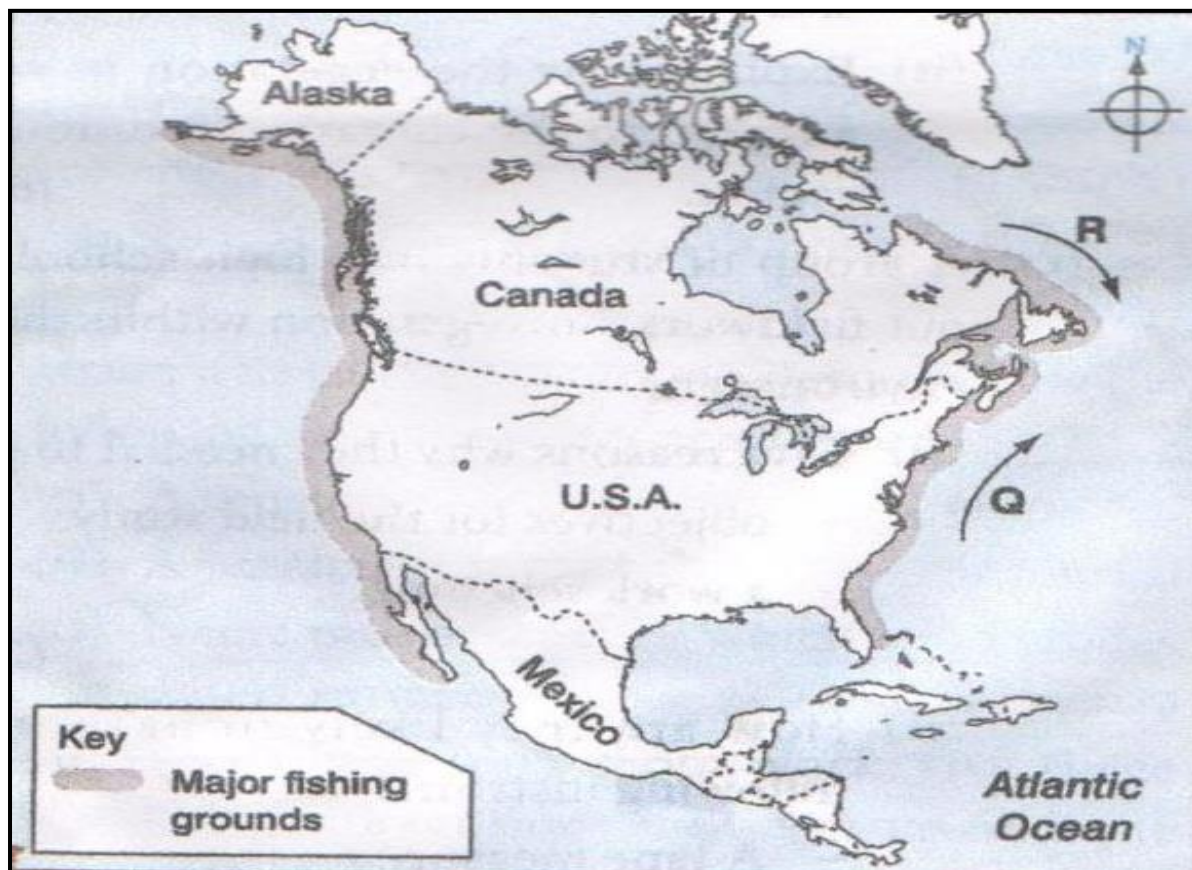
- a) i) Draw a divided rectangle measuring 15cm to represent the above data. **(9 marks)**  
 ii) State **three** advantages of using divided rectangles to represent geographical data. **(3 marks)**
- b) State **four** physical conditions that favour coffee growing in Kenya highlands. **(4 marks)**  
 c) Describe the processing of coffee from harvesting to marketing. **(6 marks)**  
 d) List **three** ways in which planted coffee is taken care by farmers. **(3 marks)**

7. Use the map of Kenya below to answer question 7. a) i), ii) and iii).



- a) i) Identify the irrigation schemes marked X, Y and Z and in each case the main crop grown. **(6 marks)**  
 ii) Explain **four** factors that led to the location of irrigation scheme Y. **(8 marks)**  
 iii) State **four** problems that are experienced in the irrigation marked Z. **(4 marks)**
- b) What is a polder? **(2 marks)**
- c) Give **five** benefits of the Zuyder Zee project. **(5 marks)**

8. a) i) Name **two** types of fishing grounds in Kenya. **(2 marks)**  
 ii) Give **two** types of fishing methods. **(2 marks)**  
 ii) Give **four** reasons why marine fishing industry in east Africa is not well developed. **(4 marks)**
- b) Explain **four** ways in which marine fisheries are being conserved in Kenya. **(8 marks)**  
 c) Use the map of North America below to answer questions (i) and (ii).



- i) Name **one** method of fishing used in the shaded area. (1 mark)
- ii) Name ocean currents marked Q and R. (2 marks)
- d) Explain why major fishing grounds of the world are located in the temperate latitudes of the northern hemisphere. (6 marks)
9. a) Distinguish between manufacturing and tertiary industries. (2 marks)
- b) i) Name **four** agricultural food processing industries in Kenya. (4 marks)
- ii) Explain **four** factors that influenced the location of the iron and steel industries in the Ruhr region of Germany. (8 marks)
- c) Give **five** reasons why the government of Kenya encourages the establishment of Jua Kali industries. (5 marks)
- d) You intend to carry out a field study in a coffee factor near your school.
- i) State **three** reasons why you would visit the area of study in advance. (3 marks)
- ii) You have prepared a working schedule for your study.  
State **three** items you would include in your schedule. (3 marks)
10. a) Draw an outline map of Kenya. (2 marks)
- b) On the map indicate the following forests. (3 marks)
- i) Kakamega forest
- ii) Mt. Kenya forest
- iii) Arabuko sokoke forest
- c) i) Name **three** natural causes of forest depletion. (3 marks)
- ii) Describe **four** problems facing forests in Kenya. (8 marks)
- d) i) State **three** factors favouring production of soft wood forests in Canada. (3 marks)
- ii) Explain **three** reasons why the Kenyan government should conserve her forests. (6 marks)

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

# ENGLISH

PAPER 1

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

101/1

# ENGLISH

(FUNCTIONAL WRITING)

PAPER 1

TIME: 2 HOURS

## INSTRUCTIONS TO CANDIDATES

- 1) Write your name, index number, signature and date in the spaces provided above.
- 2) Answer **ALL** the questions in this paper.
- 3) All answers must be written in the spaces provided in this question paper.

## FOR OFFICIAL USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1	20	
2	10	
3	30	
<b>TOTAL SCORE</b>	<b>60</b>	





Write a congratulatory note to her to be presented that day.

**(8 marks)**

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

**CLOZE TEST**

**(10 marks)**

**Read the passage below and fill in each blank space with an appropriate word.**

Many of our villages are greatly (1)\_\_\_\_\_ by the rising rate of insecurity. Barely does a day (2)\_\_\_\_\_ before one hears of burglary here or a car-jacking there. Majority of the (3)\_\_\_\_\_ are innocent citizens (4)\_\_\_\_\_ have, toiled for years to acquire the property they have. What is particularly (5)\_\_\_\_\_ is that despite the efforts of the authorities (6)\_\_\_\_\_ still needs to be done. Although the police (7)\_\_\_\_\_ has come up with the idea of community policing, a lot still remains to be done. Sometimes it's (8)\_\_\_\_\_ for people to reveal the identity of the culprits even if they are members of their families. (9)\_\_\_\_\_, this is the only way we can root out the bad elements from our communities. (10)\_\_\_\_\_ this doesn't happen, we will always cry over spilt milk.

**2. ORAL SKILLS**

**(30 marks)**

**I. Read the poem below and answer the questions that follow.**

Keep it Dark  
Keep it dark!  
Don't tell your wife  
For your wife is a log  
Who will burst into flame!  
Keep it dark!

Keep it dark!  
Don't tell your wife  
For your wife is a pot  
That is blown by the breeze  
And then bang!  
It's all out and about

**Questions**

**a) Identify two aspects that make the poem to be categorized as oral. (2 marks)**

.....  
.....

**b) Which aspect of style enhances the message? (1 mark)**

.....  
.....

**c) How would you make the recitation of this poem lively? (2 marks)**

.....  
.....  
.....

**d) How would you recite the second line of the first stanza? (1 mark)**

.....  
.....

**e) Which words would you stress in the third line of the first stanza? Explain.(1 mark)**

.....  
.....

**II. Identify the word with a different sound. (4 marks)**

a) Exciteded      Packetet      Laughed

.....

Leisure      Measure      Pressure

.....

Echoes      Archh      Monarchy

.....

b) Leaff      Doughh      Roughh

.....

**III. Read the items below and answer the questions that follow.**

a) Hurry hurry has no blessings.

b) He who laughs last laughs the loudest.

**Questions**

a) Name the category to which the items belong. (1 mark)

.....

b) Identify and illustrate **two** aspects of sound used in each of the items above. (4 marks)

.....

.....

.....

.....

c) Give **two** characteristics of the above genre. (2 marks)

.....

.....

**IV. Provide the homophones of these words. (2 marks)**

i) Bow.....

ii) Fir.....

iii) Tale.....

iv) Eight .....

**V. You intend to take part in a debate. What should you observe before and during the debate?**

**(4 marks)**

.....

.....

.....  
.....

**VI. Read this interview and fill the missing parts. (6 marks)**

Interviewer:

.....  
.....(1 mark)

Interviewee: I am fine, thank you.

Interviewer: Welcome and be seated.

Interviewee:.....  
.....(1 mark)

Interviewer:.....  
.....(1 mark)

Interviewee: I only know Mr. Tembo, who was once our principal. It is a surprise to find him in this panel.

Interviewer:.....  
..... (1 mark)

Interviewee: I believe I will be a big asset to your company. I have done sales and marketing and it is my intention to promote the products of this company.

Interviewer:

.....  
..... (1 mark)

Interviewee: I have a lot of experience in this field since I worked in the same capacity just before I went to the university for my post graduate studies.

Interviewer: Alright we will get in touch with you as soon as possible.

Interviewee.....  
.....(1 mark)

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

# ENGLISH

### PAPER 2

TIME: 2½ HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

**1. Read the passage below and then answer the questions that follow.**

A lot of students think that learning is only in class. If students use two extra steps, most students will not forget what they learned in class. To achieve effective learning, students needed to follow two extra steps in the three strategic learning processes.

The key to success is by following these three strategies. Review is essential to student success. Unless content is reviewed by students shortly after it is learned, it will soon be forgotten. To avoid forgetting what you learned, it is recommended to review daily. It is also recommended to reduce large volumes of notes into point form and to paraphrase what you have learned. Other helpful tips include creating concept maps and diagrams; creating fact, concept or vocabulary cards and using visualization to better connect to what you learned. These are all important tools to helping students better understand and memorize lesson content.

The key to achieving academic success cannot be directly correlated to one specific area. Rather it requires students to be overall rounded in many different aspects. This includes attending class regularly to keep pace with the class. Falling behind in studies or homework can be **detrimental** to academic success and can induce stress on to students. Participating

In class activities and discussions are also vital parts of learning and applying concepts learned. On the other hand, taking good, concise notes will always helping the long run when reviewing for tests and exams. To sum it all up, strategic learning is the password for many academic achievements.

Being exposed to knowledge is the first step in the journey, the fact that young scholars can learn and be a part of history is a phenomenal step in furthering their search to success. Reviewing notes, in the way the young individual wishes, by him/herself, or with a good friend, this will help him/her to understand what has been learned in a way he understands. Lastly practice is a great way to memorise what has been learned, when practice achieves its full potential, the individual won't only been titled for a good mark, but also away to view, under and think of things. Those three attributes will help scholars become more successful, but it's important to one as it is to the other, and each and every person should find the learning strategies effectual for him/herself, and in extremely exceptional occasions even invent innovate new strategies.

**QUESTIONS**

(a)What does the writer faults in the students thinking according to the first paragraph? (2marks)

.....  
.....

(b)Explain the three strategies that are key to success. (6marks)

.....  
.....  
.....  
.....  
.....  
.....

(c)Unless content is reviewed by students shortly after it is learned, it will soon be forgotten.. (1mark)

Begin if.....

(d)The key to achieving academic success cannot be directly correlated to one specific area.

**Rewrite the sentence adding a question tag**

.....  
.....

(e)Discuss the tone of the passage. (3marks)

.....  
.....  
.....

(f) **According** to the passage, identify attributes that help a student become a successful learner? (3marks)

.....  
.....  
.....

(g)Explain the meaning of the following words and phrases as used in the passage.(4marks)

i) Detrimental .....

ii)Correlated .....

iii)Effectual .....

iv)Exceptional .....

**2. Read the extract below and then answer the questions that follow:**

**Nora:** (drops her cloak) Someone is coming now! (Goes to the door and listens.) No — it is no one. Of course, no one will come today. Christmas Day — nor tomorrow either. But perhaps— (opens the door and looks out.) No, nothing in the letterbox; it is quite empty. (comes forward) What rubbish! Of course, he can't be in earnest about it. Such a thing couldn't happen: it is impossible — I have three little children. (enter the NURSE from the room on the left, carrying a big cardboard box)

**Nurse:** At last I have found the box with the fancy dress.

**Nora:** Thanks; put it on the table.

**Nurse:** (doing so) But it is very much in want of mending.

**Nora:** I should like to tear it into a hundred thousand pieces.

**Nurse:** What an idea! It can easily be put in order—just a little patience.

**Nora:** Yes, I will go and get Mrs. Linde to come and help me with it.

**Nurse:** What, out again? In this horrible weather? You will catch cold, ma'am, and make yourself ill.

**Nora:** Well, worse than that might happen. How are the children?

**Nurse:** The poor little souls are playing with their Christmas presents, but —

**Nora:** Do they ask much for me?

**Nurse:** You see, they are so accustomed to having their mamma with them.

**Nora:** Yes, but, nurse, I shall not be able to be so much with them now as I was before.

**Nurse:** Oh well, young children easily get accustomed to anything.

**Nora:** Do you think so? Do you think they would forget their mother if she went away altogether?

**Nurse:** Good heavens! - Went away altogether?

**Nora:** Nurse, I want you to tell me something I have often wondered about how could you have the heart to put your own child out among strangers?

**Nurse:** I was obliged to, if I wanted to be little Nora's nurse.

**Nora:** Yes, but how could you be willing to do it?

**Nurse:** What, when I was going to get such a good place by it? A poor girl who has got into trouble should be glad to. Besides, that wicked man didn't do a single thing for me.

**Nora:** But I suppose your daughter has quite forgotten you.

**Nurse:** No, indeed she hasn't. She wrote to me when she was confirmed, and when she was married.

**Nora:** (putting her arms round her neck) Dear old Anne, you were a good mother to me when I was little.

**Nurse:** Little Nora, poor dear, had no other mother but me.

**Nora:** And if my little ones had no other mother, I am sure you would — What nonsense I am talking! (opens the box) Go in to them. Now I must You will see tomorrow how charming I shall look.

**Nurse:** I am sure there will be no one at the ball so charming as you, ma'am. (goes into the room on the left)

## **QUESTIONS**

a) Why is Nora looking worried that someone might be at the door? **4mks**

.....

.....

.....

.....

b) The nurse reveals that she had to leave her daughter behind in order to serve as Nora's nurse. Explain the theme brought out from this revelation. **6mks**

.....

.....

.....

.....

.....

.....

.....

c) What does this conversation between Nora and the Nurse foreshadow? **4mks**

.....

.....

.....

.....

d) Other than foreshadow, give another styles that is brought out in the excerpt **4mks**

.....

.....

.....

.....

.....

e) Someone is coming now! (Change into a negative sentence). **3mk**

.....

.....



**3. Read the poem below carefully and answer the questions that follow.**

**WHAT'S IMPORTANT IN LIFE?**

The Years have passed by,  
In the blink of an eye,  
Moments of sadness,  
And joy have flown by.

People I loved,  
Have come and have gone,  
But the world never stopped,  
And we all carried on.

Life wasn't easy,  
And the struggles were there,  
Filled with times that it mattered,  
Times I just didn't care.

I stood on my own,  
And I still found my way,  
Through some nights filled with  
tears,  
And the dawn of new days.

And now with old age,  
It's become very clear,  
Things I once found important,  
Were not why I was here.

And how many things,  
That I managed to buy,

Were never what made me,  
Feel better inside.

And the worries and fears,  
That plagued me each day,  
In the end of it all,  
Would just fade away.

But how much I reached out,  
To others when needed,  
Would be the true measure,  
Of how I succeeded.

And how much I shared,  
Of my soul and my heart,  
Would ultimately be,  
What set me apart.

And what's really important  
Is my opinion of me,  
And whether or not,  
I'm the best I can be.

And how much more kindness,  
And love I can show,  
Before the Lord tells me,  
It's my time to go.

*By Pat Fleming*

1. Who is the persona in the poem above?

(2 marks)

.....  
.....

2. What subject matter is addressed in the poem?

(3 marks)

.....  
.....  
.....

3. Give evidence from the poem suggesting that time has elapsed so quickly. (3 marks)

.....  
.....  
.....

4. Paraphrase verse 6 of the poem. (2 marks)

.....  
.....  
.....

5. Describe the attitude of the persona toward the subject matter. (3 marks)

.....  
.....  
.....

6. Identify and explain the stylistic device employed in the last verse of the poem.(2 marks)

.....  
.....  
.....

7. With old age, it's become very clear. Rewrite ending with: old age) ` (1 mark)

.....

8. Explain the meaning of the following as used in the poem. (4 mks)

i) Plagued.....

ii) I stood on my own, through some nights filled with tears

iii) True measure.....

**GRAMMAR 15 MARKS**

A. Fill in with the most suitable prepositions

1. They acquainted Jean \_\_\_\_\_ Italian prepositions.

2. It was naive \_\_\_\_\_ you to ignore the doctor's prescription.

3. This team is good \_\_\_\_\_ its everyday work.

**B. Punctuate accordingly**

1. she was young beautiful kind and intelligent.
2. china one of the most powerful nations on earth has a huge population.
- 3.

**C. Rewrite according to instructions in brackets**

1. I met my friend while walking from home to school. (Begin with: Walking)
2. Who taught you Physics? (Rewrite in the passive)
3. I didn't give the money to my sister. I gave the money to my cousin.

(Rewrite using 'rather')

- D.** Having persevered, he bore fruits. (Rewrite using “perseverance”)

**E. Use the most appropriate form of the verb in brackets**

1. What \_\_\_\_\_ the children doing when you last saw them? ( to be)
2. I \_\_\_\_\_ appreciate his jokes. They were not funny. (to do)

**F. Rewrite the sentences using the words in brackets**

1. He said nothing useful. (anything)
2. Can anyone answer this question? (no one)

**G. Fill with most appropriate collective noun**

1. A \_\_\_\_\_ of soldiers received medals from the president.
2. A \_\_\_\_\_ of islands was submerged in the ocean when the cyclone occurred.

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

# ENGLISH

### PAPER 3

TIME: 2½ HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

# ENGLISH

## Paper 3

(Imaginative Compositions and Essays Based on Set Texts)

### INSTRUCTIONS TO CANDIDATES

- (a) Write your name and index number in the spaces provided above.
- (b) Sign and write the date of the examination in the spaces provided above.
- (c) Answer **three** questions in this question paper.
- (d) In question 1, choose either **a** or **b**.
- (e) Question 2 and 3 **are compulsory**

### FOR EXAMINER'S USE ONLY

Questions	Maximum Score	Candidate's Score
1	20	
2	20	
3	20	
	<b>TOTAL</b>	

### **1. Imaginative composition {COMPULSORY}**

a) Write a composition ending with the words: The events of the previous day left me challenged to begin a new life.

or

b) Write a composition entitled “Love conquers all”. (20mks)

### **2. Compulsory Set Text**

"Change is inevitable in any society." Validate this statement with illustrations from the novel, Blossoms of the Savannah by Henry Ole Kulet. (20mks)

### **3. Optional set text { answer only one question }**

#### **A Silent Songs and Other Stories**

(A) “Marriage is a valued cultural and religious practice in most African communities. Using relevant illustrations from The Truly Married Woman by Abioseh Nicol, write an essay in support of this statement. (20 marks)

.

(20mks)

Or

#### **(B) An Artist of the Floating World**

- 1) The author has been able to effectively employ irony to bring out the message of the text. Illustrate the effectiveness of this style in the text **An Artist of The floating world by Kazuo Ishiguro** (20 marks)

Or

#### **(C) Inheritance**

##### **c)Drama: David Mulwa, Inheritance**

Write an essay to show how citizens suffer due to bad leadership. Base your arguments on David Mulwa’s Inheritance. (20mks)

# NATIONAL SCHOOLS PREMOCK

**KCSE 2023 SERIES 1**

**KISWAHILI**

**PAPER 1**

**TIME: 1¾ HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

**102/1**

**KISWAHILI**

**KARATASI YA 1**

**INSHA**

**MUDA: SAA 1¾**

**MAAGIZO KWA WATAHINIWA**

- a) Andika insha **mbili**.*
- b) Insha ya **kwanza** ni ya lazima.*
- c) Chagua insha nyingine moja kutoka kwa hizo tatu zilizobakia.*
- d) Lugha ya Kiswahili sanifu itumike kujibia maswali*
- e) Kila insha isipungue maneno 400.*
- f) Kila insha ina alama 20.*
- g) Unadhifu wa hati unachangia kueleweka rahisi.*
- h) Karatasi hii ina kurasa **mbili**.*

## **1. INSHA YA LAZIMA**

Wewe ni mkuu wa Polisi Idara ya Trafiki Wilaya ya Muembe Mmoja. Kutokana na visa vingi vya ajali barabarani, waandikie ilani madereva na wananchi katika Wilaya yako kuhusu kutozingatia sheria za trafiki. Ilani hii itokee katika gazeti la ‘Sauti’.

- 2.** Vijana wengi nchini hawana ajira. Jadili mbinu mbalimbali za kubuni nafasi za kazi nchini Kenya kwa vijana.
- 3.** Mchuma janga hula na wakwao. Andika kisa kudhibitisha methali hii.
- 4.** Andika Insha inayoanza kwa maneno yafuatayo:  
Nilipowakumbuka wenzangu, macho yaliingia kiwi, machozi yakanilengalenga...

# NATIONAL SCHOOLS PREMOCK

**KCSE 2023 SERIES 1**

**KISWAHILI**

**PAPER 2**

**TIME: 2½ HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

102/2

**KISWAHILI**

**KARATASI YA PILI**

**LUGHA**

**MUDA: SAA 2½**

**MAAGIZO KWA WATAHINIWA**

1. *Andika jina lako, shule na nambari yako katika nafasi ulizoachiwa hapo juu.*
2. *Andika tarehe ya mtihani na utie sahihi yako katika nafasi ulizoachiwa hapo juu.*
3. *Jibu maswali yote.*
4. *Andika majibu yako katika nafasi ulizoachiwa baada ya kila swali katika kijitabu hiki cha maswali.*

**KWA MATUMIZI YA MTAHINI PEKEE**

SWALI	UPEO	ALAMA
1	15	
2	15	
3	40	
4	10	
<b>JUMLA</b>	<b>80</b>	



# 1. UFAHAMU (ALAMA 15)

## Soma kifungu kifuatacho kisha ujibu maswali uliyopewa

Kila mmoja wetu anafahamu jukumu muhimu linalotekelezwa na mashirika yasiyo ya kiserikali almaarufu kama NGOs katika shughuli ya kuleta maendeleo muhimu humu nchini.

Ni dhahiri kuwa maendeleo mengi ambayo tunajivunia kama jamii - hasa katika sehemu za mashinani - yametekelezwa na mashirika haya ambayo hufadhiliwa na serikali na mashirika ya kigeni. Sio tu miradi ya kupambana na ugonjwa hatari wa Ukimwi, maji ya kunywa, kilimo, ufadhili wa kimasomo n.k, bali hata inayohusu uhifadhi wa mazingira.

Hata hivyo, uchunguzi unaonyesha kuwa ingawa mashirika haya yanajivunia kutekeleza mengi, maendeleo ni machache mno ikilinganishwa na kiasi cha pesa ambacho kimetolewa na wafadhili. Madai yaliyotolewa na wanaharakati wa kutetea haki za kibinadamu nchini majuma kadhaa yaliyopita kuwa **walaghai** wa kitaalamu wameingia sekta hii **kuwapora** wafadhili pesa zao yana ukweli fulani.

Kuna mbinu kadhaa ambazo zinatumiwa na mashirika laghai kuwapora wafadhili pesa zao. Mbinu ya kwanza ni kupitia uandishi wa mapendekezo ya miradi isiyokuwepo. Mengi ya mapendekezo hayo huandikwa kwa lugha ya mvuto kuwashawishi wafadhili watoe fedha zao. Kuna uwezekano umewahi kukutana na wasomi waliobobea katika taaluma ya kuandika mapendekezo ya miradi kwa malipo. Hao ndio wajua mambo ya kujumuishwa kwenye mapendekezo ya miradi ili kuwateka wafadhili. Kile wafanyacho ni kuandika mapendekezo na baadaye hupewa sehemu yao ya pesa hizo punde zinapotolewa.

Njia ya pili sio wizi wa wazi kwani huhusisha matumizi ya pesa kwa njia ambazo hazikukusudiwa. Badala ya kutumia pesa za wafadhili kutekeleza miradi ya maendeleo iliyopendekezwa, baadhi ya wasimamizi wa mashirika haya huweka pesa mifukoni mwao.

Viongozi wa mashirika mengine hutumia ufadhili huo kuzuru mataifa ya kigeni kwa kisingizio cha kuhudhuria makongamano ya maendeleo. Baadhi yao huwa hawaendi mbali; wao huandaa makongamano ya kukata na shoka kila mwezi katika hoteli kubwa kubwa nchini. Kinaya kilioje kuwa pesa zilizotafutwa kusaidia wajane katika vijiji vya mashambani zinatekeleza miradi bandia mijini? Inasemekana miradi ya baadhi ya mashirika hutekelezwa kimaandishi tu na maafisa wanaosimamia mashirika haya bila kuwahusisha waliolengwa.

Isitoshe, baadhi ya mashirika haya hutumia nyingi ya pesa zake kwa masulala ya utawala na usimamizi badala ya miradi ya maendeleo

### Maswali

- a) Taja jukumu muhimu linalotekelezwa na mashirika yasiyo ya kiserikali. **(alama 2)**

.....  
.....

- b) Ni miradi ipi ambayo imetekelezwa na mashirika haya? **(alama 5)**

.....  
.....  
.....

.....  
.....

c) Ni kwa nini maendeleo ambayo yametokelezwa na mashirika haya ni machache? (alama 2)

.....  
.....

d) Ni mbinu zipi zinazotumiwa na mashirika laghai kuwapora wafadhili pesa zao? (alama 4)

.....  
.....  
.....  
.....

e) Eleza maana ya maneno yafuatayo kama yalivyotumika kifunguni. (alama 2)

i) walaghai

.....  
.....

ii) kuwapora

.....  
.....  
.....

## 2. MUHTASARI (ALAMA 15)

Mfumo wa elimu wa 8.4.4 ulipoanzishwa nchini mnamo 1983, lengo kuu lilikuwa ni kuwapa wanafunzi maarifa ya kielimu hasa ya kiutendakazi ili kuwawezesha kijitegemea baada ya kumaliza masomo. Hata hivyo, wakosoaji wa mfumo huu wanasema kwamba yaliyomo kwenye mtaala ni mengi mno na kwamba mtaala wenyewe ni mzigo mzito kwa wanafunzi kando na kuegemea mno mitihani.

Hata baada ya kupunguzwa kwa idadi ya masomo ya kutahiniwa kwenye mfumo huu, mambo yalikuwa changamano zaidi wakati serikali ya NARC ilipoingia mamlakani na kuanzisha mfumo wa elimu ya msingi bila malipo mnamo 2003. Hatua hiyo ilisababisha idadi ya wanafunzi waliojiunga na shule za msingi kuongezeka maradufu-kutoka wanafunzi milioni 5 hadi wanafunzi milioni 8 mnamo 2009.

Licha ya kwamba mfumo wa elimu ya msingi bila malipo umesifiwa hapa na pale, wadadisi wa mambo hata hivyo wanatilia shaka masuala fulani kuuhusu. Mojawapo ya masuala haya ni viwango vya ubora wa elimu wanayopata watoto wetu. Kwa mujibu wa utafiti

uliofanywa na taasisi ya Uwezo Kenya mnamo Oktoba mwaka 2009, ilibainika kwamba mwanafunzi mmoja kati ya wanafunzi wanne katika kiwango cha shule ya msingi hufika katika darasa la tano bila ya kuwa na uwezo wa kujibu maswali ya masomo ya mwanafunzi wa darasa la pili.

Pamoja na hayo, uchunguzi huo ulibainisha kwamba takriban asilimia nne ya wanafunzi chini ya mfumo wa elimu ya msingi bila malipo husoma na kukamilisha masomo ya darasa la nane bila kupata maarifa ya kimsingi ya kusoma na kuandika au hata ujuzi wa kufanya hisabati za kimsingi

Hatua ambazo zimekwisha kuchukuliwa na serikali mpaka sasa-hasa ujenzi wa madarasa na amara ya kukidhi mahitaji ya idadi kubwa ya wanafunzi katika mfumo wetu wa elimu-hazijafanikiwa sana.

Aidha, ingawa serikali imeamua kuwaajiri walimu kwa mpango wa kandarasi, ili kukidhi nakisi ya takriban walimu 60,000 katika shule za msingi na upili, hatua hizo bado hazijatatu lolote!

Hali hii imesababisha uwiano kati ya mwalimu na wanafunzi kuwa 1:80 katika baadhi ya sehemu nchini na kufanya walimu kushindwa kutoa huduma bora kwa kila mwanafunzi. Katika hali ya kawaida, mwalimu mmoja anapaswa kuwafundisha wanafunzi kati ya 35 hadi 40. Hii inamaanisha kwamba mwalimu mmoja hushughulika idadi maradufu ya kiwango kilichoidhinishwa kote ulimwenguni. Katika mazingira kama haya, inakuwa vigumu mno kwa mwalimu kufundisha na kuwaridhisha wanafunzi-hasa wale ambao si wepesi wa kushika mambo.

Kuhusiana na vifaa vya kufundishia, bado kuna mushkili hasa ikichukuliwa kwamba kashfa iliyowakumba Waziri wa Elimu, Prof. Sam Ogeri, na aliyekuwa katibu katika wizara hiyo, Prof. Karega Mutahi, haikusuluhishwa. Kwenye kashfa hiyo, fedha zilionuiwa kununua vifaa kama vile vitabu au kugharimia mpango wa elimu bila malipo zilitoweka kwa njia ya ajabu sana.

Hivi sasa, serikali imekaa tutwe huku watoto wetu wakiumia shuleni kana kwamba hakuna lolote lililotendeka. Shule nyingi hasa za msingi zina maktaba zilizojaa vitabu vya kiada. Hali hii bila shaka haiwachochei wanafunzi kuwa na msukumo wa kusoma kwa lengo la kujua mambo, husoma ili kupita mitihani tu. Utamaduni wa kusoma nchini unatiliwa shaka sana na hatujui ni lini utakapoi marika.

Watoto wanapaswa kukuzwa katika mazingira ya mfumo wa elimu unaothamini kusoma kwa minajili ya kupata maarifa na kupanua mtazamo wao, kinyume na sasa ambapo wanafunzi wanaotia fora katika mitihani hawajui chochote nje ya mitihani hiyo.

Tangu 2001, wadau katika sekta ya uandaaji na uchapishaji wa vitabu nchini Kenya, Uganda na Tanzania chini ya mwavuli wa Mradi wa Ustawishaji wa Vitabu Afrika ya Mashariki wamekuwa wakifanya juhudi za kimakusudi za kukuza na kupalilia utamaduni wa kusoma.

Nina wasiwasi kwamba kutokana na mlipuko wa 'teknohama' kote ulimwenguni, huenda watoto wetu wakaweka vitabu pembezoni na kushabikia mtandao wa intaneti na runinga badala ya kuchangamkia vitabu, majarida, magazeti na maandishi mengine kwenye karatasi.

**Maswali**

- a) Eleza kasoro za mfumo wa 8.4.4 kulingana na kifungu. (Maneno 25) **(alama 4)**

**Matayarisho**

.....  
.....  
.....  
.....  
.....

**Jibu**

.....  
.....  
.....  
.....  
.....

- b) Mfumo huu wa elimu ya msingi bila malipo unatiliwa shaka kwa sababu ya mambo kadhaa. Fafanua. **(Maneno 75) (Alama 11, 2 za mtiririko)**

**Matayarisho**

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

**Jibu**

.....  
.....  
.....

.....  
.....  
.....  
.....  
.....  
.....

3. **MATUMIZI YA LUGHA (ALAMA 40)**

a) Ukirejelea mkondo wa hewa kutoka mapafuni, eleza sifa za kimatamshi za ving'ong'o.  
(alama 2)

.....  
.....  
.....

b) Kwa kuzingatia sehemu zilizopigiwa mstari, toa dhana inayojitokeza katika sentensi hii.  
(alama 2)

Alisugua meno, akaoga akala kisha akaondoka.

.....  
.....  
.....

c) Tumia neno vile kama (alama 3)

Kivumishi

.....

Kiwakilishi

.....

Kielezi

.....

d) Yakinisha sentensi hii. (alama 1)

Kanisani simo wapatikanapo wezi.

.....

i) Andika sentensi hii katika kinyume. **(alama 1)**

Mvua iliponyesha baba alienda kondeni.

---

---

ii) Andika hali ya ukubwa wingi. **(alama 2)**

Nyoka yule alimuuma mtoto mkono.

---

---

e) Tunga sentensi moja kudhihirisha khusishi cha 'na' ya mtenda. **(alama 2)**

---

---

f) Onyesha dhana mbili zinazojitokeza baada ya kitenzi kunyambuliwa katika kauli ya kutendeka. **(alama 2)**

---

---

g) Eleza matumizi ya viambishi vilivyopigiwa mstari. **(alama 2)**

Amkeni mwende dukani!

---

---

h) Andika sentensi ifuatayo katika usemi wa taarifa. **(alama 2)**

Kasisi alitushauri, "Yafaa tamaduni ambazo hazitufai ziachwe".

---

---

i) Tumia kitenzi 'alikuwa' katika sentensi kama

i) Kitenzi kisaidizi. **(alama 1)**

---

ii) Kitenzi kishirikishi kikamilifu. **(alama 1)**

---

**j)** Tofautisha sentensi hizi. **(alama 2)**

i) Ningalimwona jana ningalifurahi

ii) Ningemuona jana ningefurahi

---

---

---

---

**k)** Kwa kuzingatia sehemu iliyopigwa mstari, toa maana inayojitokeza.

i) Wao huenda msikitini kila ijumaa **(alama 1)**

---

---

ii) Watoto wacheza majini. **(alama 1)**

---

---

**l)** Tambua chagizo katika sentensi hii. **(alama 1)**

Yeye huchapwa na mkewe mara kwa mara.

---

---

**m)** Weka shadda katika maneno haya. **(alama 1)**

i) Mtoto

---

ii) Mto

---

---

**n)** Huku ukitoa mfano eleza maana ya

i) Silabi wazi **(alama 1)**

---

---

ii) Silabi funge **(alama 1)**

---

---

---

**o)** Nyambua vitenzi hivi katika kauli ya kufanyiza.

i) Jua

**(alama 1)**

---

---

ii) Kana

**(alama 1)**

---

---

**p)** Onyesha viambishi katika sentensi hii.

**(alama 3)**

Nitamtafutisha

---

---

---

---

**q)** Tunga sentensi moja kuonyesha maana ya maneno haya

i) Figo

**(alama 1)**

ii) Pigo

**(alama 1)**

---

---

---

---

**r)** Pambanua sentensi hii ukitumia kielelezo matawi.

Japo alifanya kazi zote hakulipwa.

**(alama 3)**

**s)** Tunga sentensi ukitumia 'O' rejeshi ya tamati.

**(alama 1)**

---

---

---



4. **ISIMU JAMII (ALAMA 10)**

a) Eleza mitazamo miwili kuhusu chimbuko la lugha ya kiswahili nchini Kenya. **(alama 2)**

---

---

---

---

---

---

---

---

---

---

b) Eleza mambo manne yaliyochangia kuenea kwa lugha ya kiswahili zama za ukoloni. **(ala 8)**

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

# NATIONAL SCHOOLS PREMOCK

**KCSE 2023 SERIES 1**

**KISWAHILI**

**PAPER 3**

**TIME: 2½ HOURS**

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

**102/3**

**KISWAHILI**

**Karatasi ya 3**

**FASIHI**

**Muda: Saa 2 ½**

## **MAAGIZO**

- (a) Jibu maswali **manne** pekee.
- (b) Swali la **kwanza** ni la **lazima**.
- (c) Maswali hayo mengine **matatu** yachaguliwe kutoka sehemu **nne** zilizobaki..
- (d) Usijibu maswali **mawili** kutoka **sehemu moja**.
- (e) Majibu yote **lazima** yaandikwe kwa lugha ya Kiswahili
- (f) Watahiniwa ni lazima wahakikishe kwamba kurasa zote za karatasi hii zimepigwa chapa sawasawa na kuwa maswali yote yamo.

## **SEHEMU A: Riwaya**

### **1. LAZIMA**

**Assumpta K. Matei: Chozi la heri**

“Hili lilimtia ..... uchungu, akajiona kama aliyedhalilishwa na mwanamke.”

- (a) Yaweke maneno haya katika muktadha wake **(alama 4)**  
(b) Taja suala linalodokezwa katika dondoo hili **(alama 1)**  
(c) Kwa kutumia hoja kumi na tano, eleza namna suala ulilolitaja hapo juu 1 (b) linalijitokeza **(ala. 15)**

## **SEHEMU B: Tamthilia**

**Bembea ya Maisha; Jibu swali la pili au la tatu**

**2) *Wewe unajua vote valivosemwa. hadharani na faraghani. Si makanisani, si magweni. leo nikiviona vitoto hivi vilivyochekea na kusimangwa jana, vikijiendeshea mambo yao ninaridhika***

- (a) Bainisha matokeo ya maneno yaliyopigiwa mstari **(alama6)**  
(b) Eleza sifa za mwanawe msemewa **(alama4)**  
(c) Kwa hoja kumi, jadili namna suala la malezi lilivyoangaziwa katika tamthilia. **(alama10)**

**3) *Naam, bembea! Hata ikiwa ya kamba au chuma hatimaye hulika. Wanasema papo kwa papo kamba hukata jiwe. Bembea inapolika na kukatika haiwi mwisho wa mchezo. Huungwa na mchezo kuanza tena.***

- a) Jadili dhana 'bembea inapolika na kukatika haiwi mwisho wa mchezo.' Ukirejelea tamthilia **(alama10)**  
b) Jadili namna wahusika tofauti wanavyounga bembea **(alama10)**

## **SEHEMU C: Hadithi Fupi**

**Mapambazuko ya Machweo; Jibu swali la 4 au la 5**

**4.** "...iwapo penzi hili litatia doa, basi nirudishie mfuko huu kama ishara ya kulitupa penzi langu kama )ongoo na mti wake...

- a) Eleza muktadha wa dondoo hili. **(alama 4)**  
b) Fafanua mbinu mbili ambazo zimetumika katika dondoo hili. (ala 4)  
c) Eleza sifa sita za msemaji wa maneno haya. (alama 6)  
d) Eleza umuhimu wa msemewa wa hadithi hii katika kujenga ploti. **(al 6)**

5. Kwa kurejelea hadithi ya **Ahadi ni Deni**, fafanua namna Uwajibikaji umejitokeza.  
(alama 20)

**SEHEMU D: Fasihi Simulizi**

**2. Soma utungo ufuatao kisha ujibu maswali**

Heri ujue mapema

Nasaba yetu haina woga

Woga haumei kwetu, humea kwa kina mamako.

Tulichinja jogoo na fahali ili uwe mwanaume.

Ah! Kisu cha ngariba ni kikali ajabu. Iwapo

utatikisa kichwacho. Uhamie kwa

wasiotahiri, Ama tukwite njeku.

Mpwangu kumbuka hili,

Wanaume wa mlango wetu

Si waoga wa kisu

Wao hukatwa mchana hadi usiku Wala

hawalalamiki.

Siku nilipokatwa

Nilisimama tisti

Nikacheka ngariba kwa tashtiti Halikunitoka chozi.

Iwapo utapepesa kope

Wasichana wa kwetu na wa mbali Wote

watakucheka Ubaki ukinuna.

Sembe umepokea

Na supu ya makongoro ukabugia

Sema unachotaka

Usije kunitia aibu

**Maswali;**

- (a) Taja na uthibitisha shughuli zozote za kiuchumi za jamii ya wimbo huu (alama 4)
- (b) Ni nani mwimbaji wa wimbo huu na anawaimbia nani? (alama 2)
- (c) Huu ni wimbo wa aina gani? Thibitisha (alama 2)
- (d) Mwimbaji wa wimbo huu ana taasubi ya kiume. Thibitisha kauli hii. (alama 2)
- (e) Eleza wajibu wa nyimbo katika jamii (alama 6)

(f) Ijapokuwa nyimbo ni nzuri, zina ubaya wake. Thibitisha kauli hii

(alama 4)

## **SEHEMU E: Ushairi (alama 20)**

**Jibu swali la 7 au la 8**

### **7. Soma shairi lifuatalo kisha ujibu maswali**

Kama dau baharini, duniya inavyoyumba, Limeshamiri  
tufani, kila mmoja lakumba, Viumbe tu hali gani!

Duniya yatishika, utahisi kama kwamba, Vilima  
vyaporomoka, na kuvurugika myamba, Viumbe tu  
hali gani!

Tufani hilo la kusi, languruma na *kutamba*, Linapuliza kwa  
kasi, hapana kisichoyumba, Viumbe tu hali gani!

Mujiwe ni kubwa sana, mfanowe kama nyumba, Yazuka na  
kugongana, wala hatuna la *kwamba*, Viumbe tu hali gani!

Mibuyu hata mivule, kama usufi na pamba, Inarusha  
vilevile, *seuze hiyi migomba* Viumbe tu hali gani!

Ni kipi kilotuliya, tuwazeni na kudumba, Mandovu  
kiangaliya, yagongana na masimba, Fisi wako hali  
gani!

Hata papa baharini, tufani limewakumba, Walioko  
mikondoni, kila mmoja *asamba*, Daga wa hali gani!

Mashehe wa mdaduwa, kwa ubani na uvumba,  
Tufani hilo kwa kuwa, kusoze kwake kutamba,  
Itokee afueni!

**(Shairi la ‘Tufani’ la Haji Gora Haji, katika *Tamthilia ya Maisha*, uk 62)**

### **Maswali:**

- (a) Taja na ueleze mikondo ya shairi hili (alama 4)  
(b) Eleza dhamira ya shairi hili (alama 2)  
(c) Taja tamathali za usemi zilizotumiwa katika shairi hili. (alama 2)  
(d) Eleza muundo wa shairi hili (alama 4)  
(e) Eleza ujumbe unaojitokeza katika ubeti wa tano. (alama 3)  
(f) Onyesha matumizi ya idhini ya kishairi. (alama 3)  
(g) Eleza maana ya maneno yafuatayo kwa mjibu wa shairi hili (alama 2)

- (h) (i) Mdaduwa :  
(ii) Kutamba :

### **8. Soma shairi lifuatalo kisha ujibu maswali**

Daima alfajiri na mapema

Hunipitia na jembe na kotama  
Katika njia iendayo Kondeni  
Kama walivyofanya babuze zamani;  
Nimuonapo huwa anatabasamu  
Kama mtu aliye na hamu Kushika mpini na  
kutokwa jasho Ili kujikimu kupata  
malisho.

Anapotembea anasikiliza  
Videge vya anga vinavyotumbuiza  
Utadhani huwa vimemngojea  
Kwa usiku kucha kuja kumwambia  
Pia pepo baridi kumpepea  
Rihi ya maua zikimtetea  
Nao umande kumbusu miguuni;

Na miti yote hujipinda migogo  
Kumpapasa, kumtoa matongo;  
Na yeye kundelea kwa furaha Kuliko yeyote  
ninayemjua  
Akichekelea ha ha ha ha ha ha .....

Na mimi kubaki kujiuliza  
Kuna siri gani inayomliwaza? Au ni kujua  
au kutojua?  
Furaha ya mtu ni furaha gani? Katika dunia  
inayomhini?  
Ukali wa jua wamnyima zao  
Soko la dunia lamkaba koo;

Dini za kudhani zamsonga roho Ayalimia  
matumbo ya waroho.  
Kuna jambo gani linalomridhisha? Kama si  
kujua ni kutojua Lait angalijua, laity  
angalijua!

**Maswali:**

- a) Eleza hali ya mzungumziwa katika shairi hili. **(alama 2)**
- b) Huku ukitoa mifano, onyesha aina mbili za uhuru wa kishairi uliotumiwa katika shairi hili **(ala. 4)**
- c) Fafanua aina tatu za taswira ukirejelea ubeti wa pili **(alama 3)**
- d) Maswali ya balagha katika shairi hili yanasisitiza maudhui yapi? **(alama 2)**
- e) Kwa kutoa mifano, bainisha vipengele vitatu vya Kimtindo katika shairi hili **(alama 3)**
- f) Eleza toni ya shairi hili **(alama 2)**
- g) Bainisha nafsini katika shairi hili **(alama 1)**
- h) Eleza muundo wa shairi hili **(alama 3)**





**SECTION I** (50 MARKS)

**Answer ALL the questions from this section.**

1. Find the reciprocals of 0.216 correct to 3 decimal places hence evaluate;

$$\frac{\sqrt[3]{0.512}}{0.216}$$

**(3 marks)**

2. Without using a calculator, evaluate;

$$\frac{1\frac{1}{5} - 1\frac{1}{3}}{\frac{1}{8} - \left(-\frac{1}{2}\right)^2} - \frac{7}{15} \text{ of } 2$$

**(4 marks)**

3. Three bells ring at intervals of 9 minutes, 15 minutes and 21 minutes.

The bells will next ring together at 11.00pm. Find the time the bells had last rang together.

**(3 marks)**

4. Simplify the expression.

$$\frac{6x^2 - 13x + 6}{4x^2 - 9}$$

**(3 marks)**

5. Without using a calculator or mathematical tables, solve the equation

$$2 \log_{10} x - 3 \log_{10} 2 + \log_{10} 32 = 2$$

**(4 marks)**

6. A line L passes through point (3, 1) and is perpendicular to the line  $2y = 4x + 5$ .

Determine the equation of line L.

**(3 marks)**

7. A forex bureau in Kenya buys and sells foreign currencies as shown below.

	Buying	Selling
Currency	(Ksh)	(Ksh)
Chinese Yuan	12.34	12.35
South African rand	11.28	11.37

A businesswoman from China converted 195,250 Chinese Yuan into Kenya shillings.

- a) Calculate the amount of money in Kenya shillings that she received. **(1 mark)**
- b) While in Kenya, the businesswoman spent Ksh.1,258,000 and then converted the balance into South African Rand. Calculate the amount of money to the nearest Rand that she received. **(3 marks)**

8. The seventh term of an A.P is 20 and the sum of the first 20 terms is 610.

Find the first term and the common difference. **(3 marks)**

9. The points P, Q and R lie on a straight line. The position vectors of P and R are  $2i + 3j + 13k$  and

$5i - 3j + 4k$  respectively. Q divides PR internally in the ratio 2 : 1. Find

a) The position vector of Q.

(2 marks)

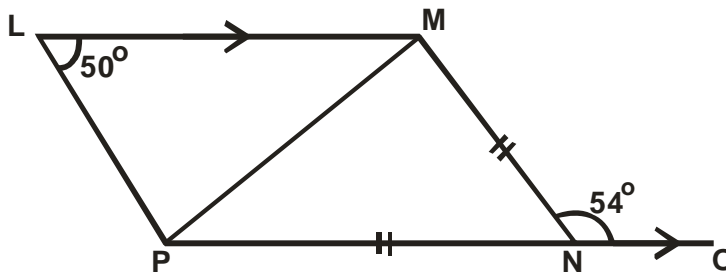
b) Distance of Q from the origin.

(1 mark)

10. In the figure below,  $\angle MNO = 54^\circ$ ,  $\angle PLM = 50^\circ$ ,  $PN = NM$  and PO is parallel to LM.

Find the value of  $\angle LPM$ .

(3 marks)



11. Two matrices A and B are such that  $A = \begin{pmatrix} k & 4 \\ 3 & 2 \end{pmatrix}$  and  $B = \begin{pmatrix} 1 & 2 \\ 3 & -4 \end{pmatrix}$ .

Given that the determinant of  $AB = 10$ , find the value of k.

(3 marks)

**12.** Two pipes A and B can fill an empty tank in 3 hours and 5 hours respectively. Pipe C can empty the full tank in 4 hours. If the three pipes A, B and C are opened at the same time, find how long they will take to fill the tank. **(3 marks)**

**13.** Determine the equation of the normal to the curve  $y = x^2 - 3x + 1$  at a point  $(-2, 3)$  giving your answer in the form  $ax + by = c$ . **(3 marks)**

**14.** The size of each interior angle of a regular polygon is five times the size of exterior angle. Find the number of sides of the regular polygon. **(3 marks)**

**15.** Find the integral values of  $x$  which satisfy the inequalities.

$$x + 8 > 4x - 6 \geq 3(4 - x)$$

**(2 marks)**

**16.** John had two bags A and B containing sugar. If he removed 2kg from bag A and added to bag B, the mass of sugar in bag B would be four times the mass of sugar in bag A. If he added 10kg of sugar to the original amount of sugar in each bag, the mass of sugar in B would be twice the mass of the sugar in bag A.

Calculate the original mass of sugar in each bag.

**(3 marks)**

**SECTION II (50 MARKS)**

**Answer any FIVE questions from this section**

17. The table below shows the height measured to the nearest cm of 101 pawpaw trees.

Height in cm	20 – 24	25 – 29	30 – 34	35 – 39	40 – 44	45 – 49	50 – 54	55 – 59
Frequency	2	15	18	25	30	6	3	2

a) State the modal class. **(1 mark)**

b) Calculate to 2 decimal places.

i) The mean height **(4 marks)**

ii) The difference between the mean height and the median height. **(5 marks)**

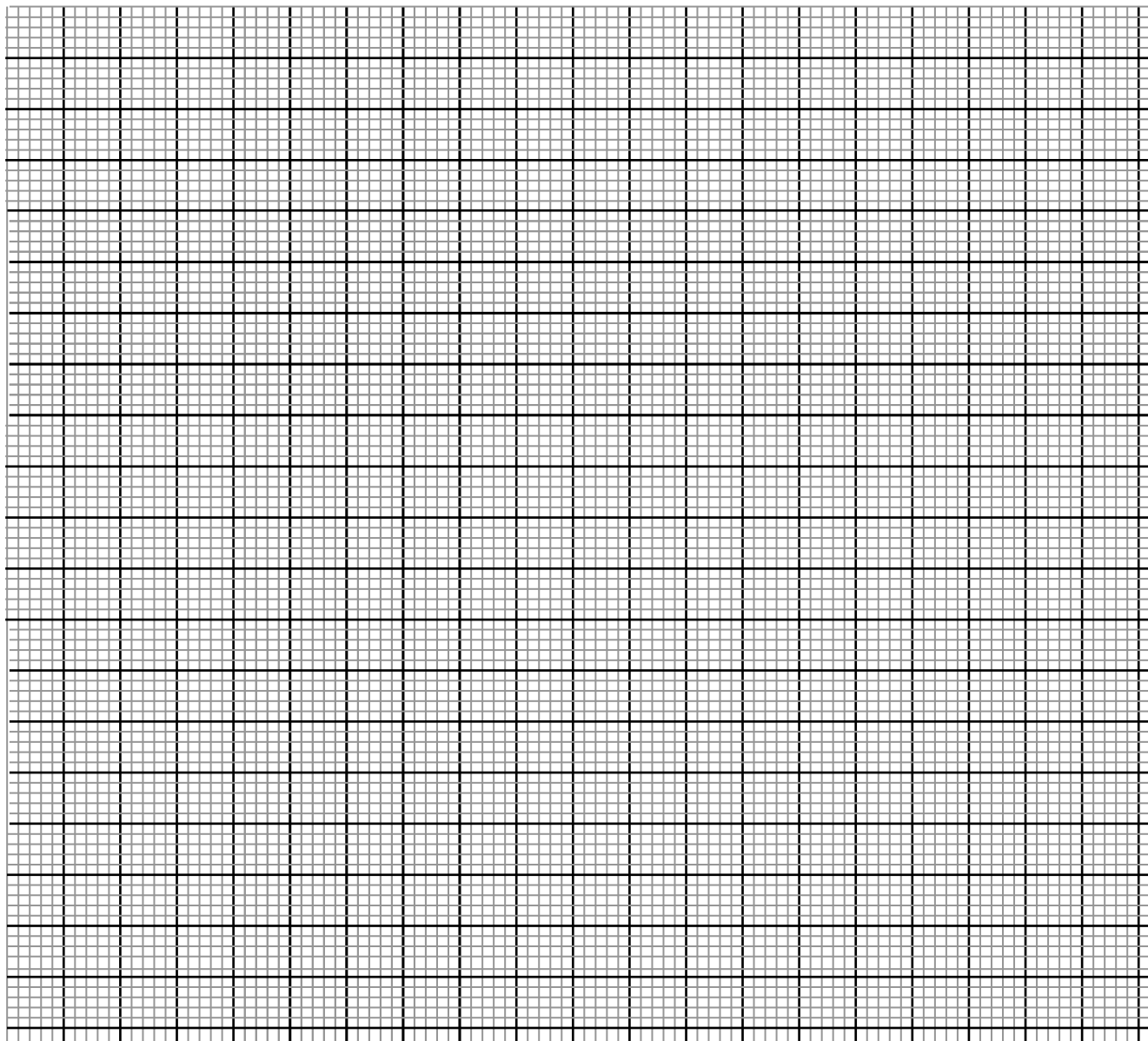




**18.** Three pegs R, S and T are on the vertices of a triangular plan field. R is 300m from S on a bearing of  $300^\circ$  and T is 450m directly South of R.

a) Using a scale of 1cm to represent 60m, draw a diagram to show the position of the pegs.

**(3 marks)**



b) Use the scale drawing to determine;

i) The distance between T and S in metres. **(2 marks)**

ii) The bearing of T from S. **(1 mark)**

c) Find the area of the field in hectares correct to one decimal place. **(4 marks)**

**19.** Mr. Mutuku owns a bicycle which he sometimes rides to go to work. Out of 21 working days in a month he only rides to work for 18 days. If he rides to work the probability that he is bitten by a rabid dog is  $\frac{4}{15}$  otherwise it is only  $\frac{1}{13}$ . When he is bitten by the dog, the probability that he will get treatment is  $\frac{4}{5}$  and if he does not get treatment the probability that he will get rabies is  $\frac{5}{7}$

a) Draw a tree diagram to show the events. **(3 marks)**

b) Using the tree diagram above determine the probability that

i) Mr. Mutuku will not be bitten by a rabid dog. **(2 marks)**

ii) He will get rabies. **(2 marks)**

iii) He will not get rabies. **(3 marks)**

**20.** The volume  $V\text{cm}^3$  of a solid depends partly on  $r^2$  and partly on  $r^3$  where  $r$  is one of the dimensions of the solid.

When  $r = 1$ , the volume is  $54.6\text{cm}^3$  and when  $r = 2$ , the volume is  $226.8\text{cm}^3$ .

**a)** Find the expression for  $V$  in terms of  $r$ . **(5 marks)**

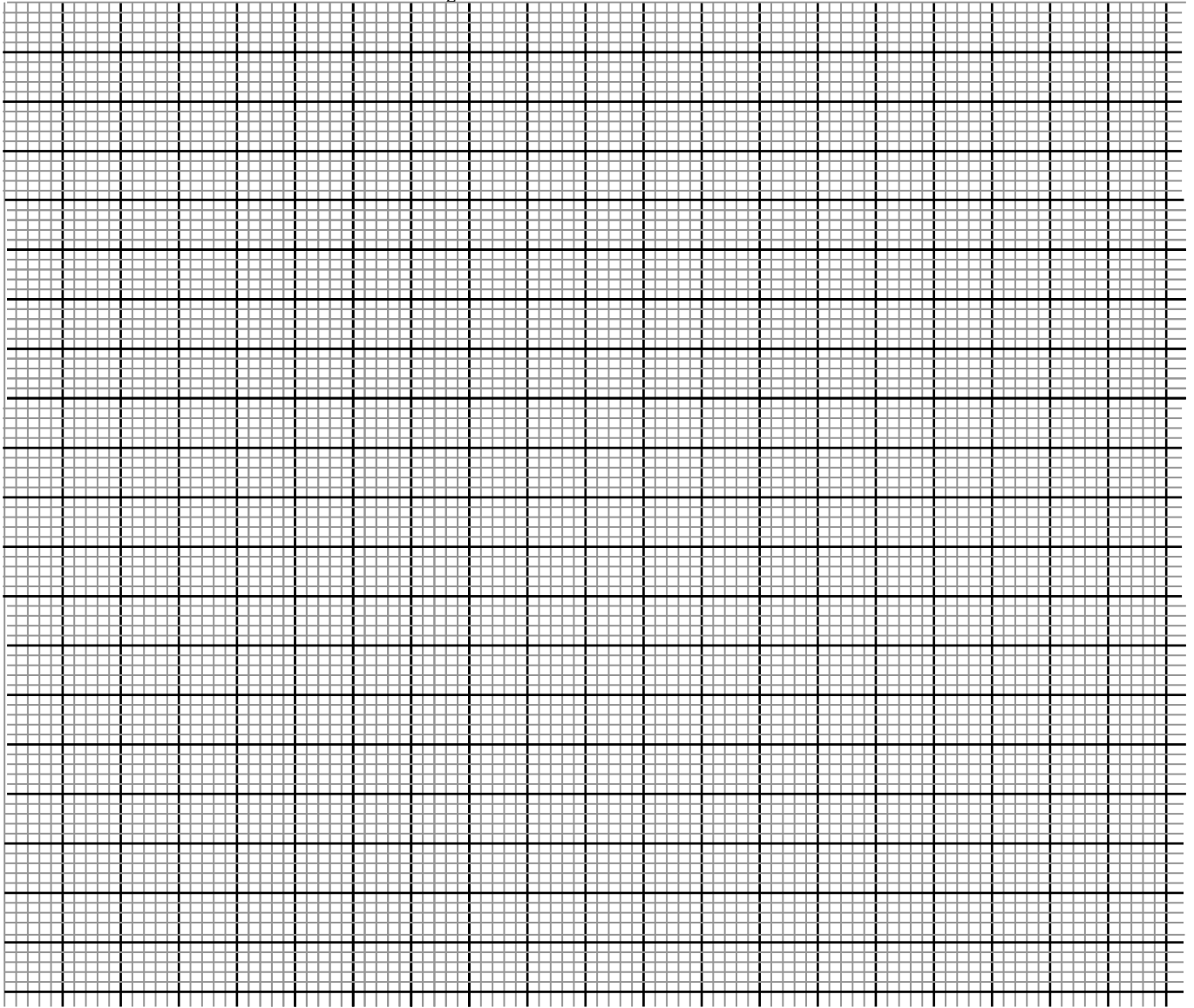
**b)** Calculate the volume of solid when  $r = 4$ . **(3 marks)**

**c)** Find value of  $r$  for which the two parts of the volume are equal. **(2 marks)**

21. The equation of a curve is given by  $y = 5x - \frac{1}{2}x^2$

a) Draw the curve of  $y = 5x - \frac{1}{2}x^2$  for  $0 \leq x \leq 6$ .

**(3 marks)**



b) By integration find the area bounded by the curve, the line  $x = 6$  and the  $x$ -axis. **(3 marks)**

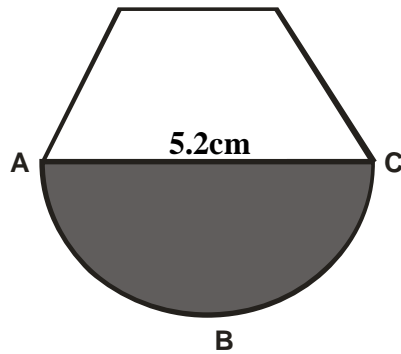
c) i) On the same graph in (a) draw the line  $y = 2x$

**(1 mark)**

ii) Determine the area bounded by the curve and the line  $y = 2x$

**(3 marks)**

22. The diagram below shows a cross section of a bottle. The lower part ABC is a hemisphere of radius 5.2cm and the upper part is a frustum of a cone. The top radius of the frustum is one third of the radius of the hemisphere. The hemisphere part is completely filled with water as shown in the diagram.



When the container is inverted, the water now completely fills on the frustum part.

- a) Determine the height of the frustum part. **(7 marks)**

- b) Find the surface area of the frustum part of the bottle. **(3 marks)**

**23.** A bus left Nairobi at 7.00a.m and travelled towards Eldoret at average speed of 80km/h. At 7.45am, a car left Eldoret towards Nairobi at an average speed of 120km/hr. The distance between Nairobi and Eldoret is 300km. Calculate

**a)** The time the bus arrives at Eldoret. **(2 marks)**

**b)** The time of the day the two vehicles met. **(4 marks)**

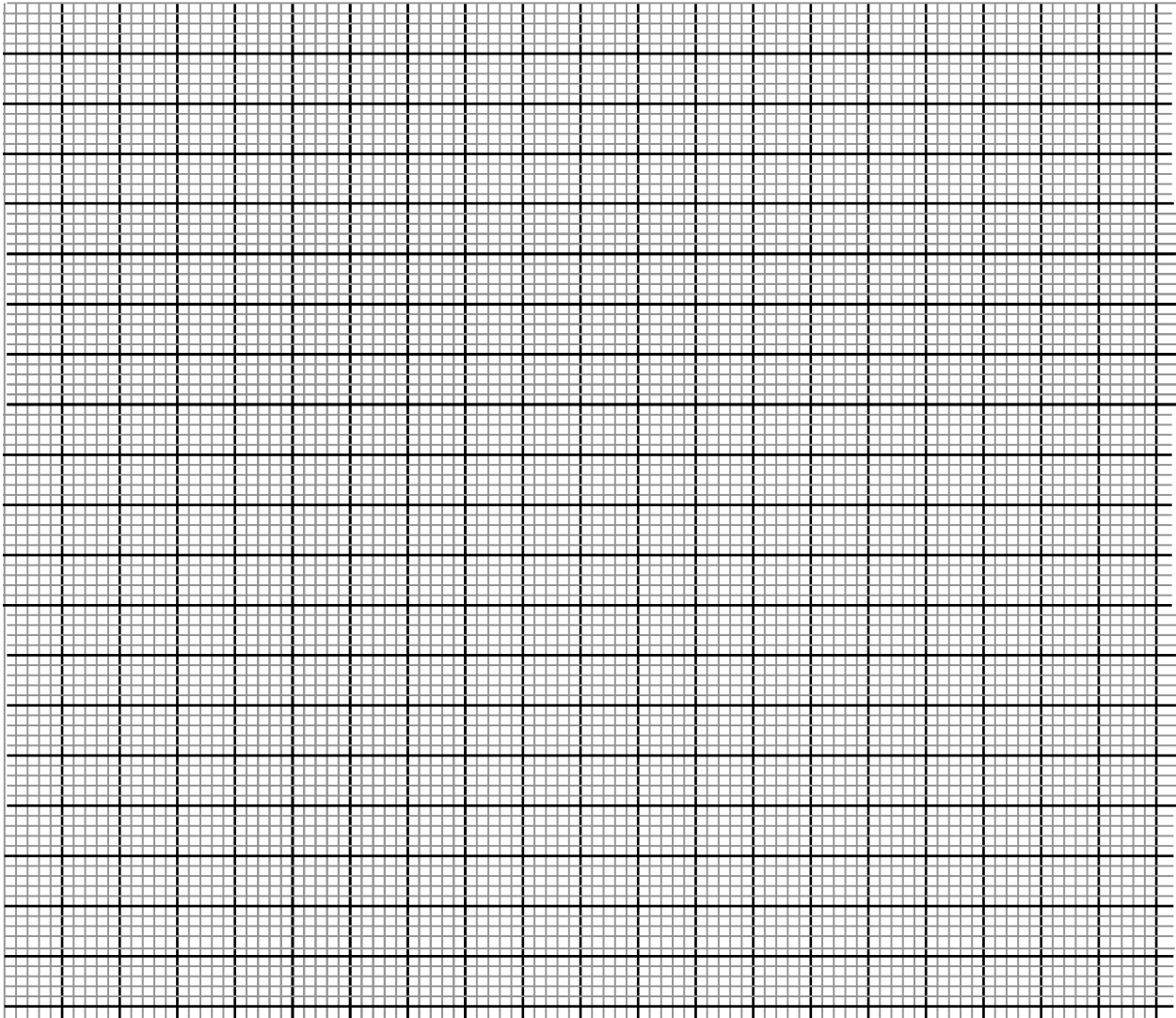
**c)** The distance from Nairobi to where the two vehicles met. **(2 marks)**

**d)** The distance of the bus from Eldoret when the car arrived at Nairobi. **(2 marks)**

24. a) Complete the table below for the function  $y = 2x^3 + 5x^2 - x - 6$ . **(3 marks)**

x	-4	-3	-2	-1	0	1	2
$2x^3$	-128	-54					
$5x^2$							
-x	4	3					
-6	-6	-6	-6	-6	-6	-6	-6
y	-50				-6	0	

b) Draw the graph of  $y = 2x^3 + 5x^2 - x - 6$  for  $-4 \leq x \leq 2$  **(3 marks)**



c) By drawing a suitable line, use the graph in (b) to solve the equations

i)  $2x^3 + 5x^2 + x - 4 = 0$  **(2 marks)**

ii)  $2x^3 + 5x^2 - x + 2 = 0$  **(2 marks)**

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

# MATHEMATICS

### PAPER 2

TIME: 2½ HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

121/2

# MATHEMATICS

### PAPER 2

#### INSTRUCTIONS TO CANDIDATES

- a) Write your **name** and **index number** in the spaces provided above.
- b) Sign and write the **date** of examination in the spaces provided above.
- c) This paper consists of **two** sections, **section I** and **section II**.
- d) Answer **ALL** the questions in **section I** and only **five** questions from **section II**.

#### FOR EXAMINER'S USE ONLY

#### SECTION I

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	TOTAL

#### SECTION II

17	18	19	20	21	22	23	24	TOTAL

GRAND TOTAL	
-------------	--



**SECTION I (50 MARKS)**

**Answer ALL the questions from this section.**

1. Use logarithms to evaluate,

**(4 marks)**

$$\sqrt[3]{\frac{45.3 \times 0.00697}{0.534}}$$

2. Make P the subject of the formula

$$d = \sqrt[3]{\frac{P}{q-P}}$$

**(3 marks)**

3. Find the circle centre and radius whose equation is

$$3x^2 + 3y^2 + 18x - 6y + 18 = 0$$

**(3 marks)**

4. The volumes of two similar cylindrical containers are  $27\text{cm}^3$  and  $64\text{cm}^3$  respectively. Given that the height of the smaller container is  $12\text{cm}$ , find the height of the larger container. **(2 mks)**

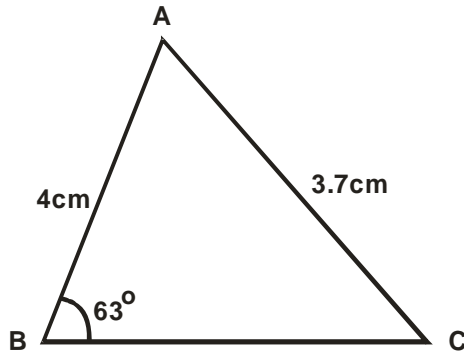
5.  $3\text{cm}^3$  of water is added to  $2\text{cm}^3$  of a certain medicine which costs sh.12 per  $\text{cm}^3$ . The chemist sells the diluted medicine at sh.6 per  $\text{cm}^3$ . Calculate the percentage profit. **(3 marks)**

6. Given that  $4y = 3 \sin \frac{2}{5}\theta$  for  $0 < \theta < 360^\circ$ . Determine

a) The amplitude of the curve **(1 mark)**

b) The period of the curve. **(1 mark)**

7. Find the length BC of the following triangle if  $AC = 3.7\text{cm}$ ,  $AB = 4\text{cm}$  and angle  $ABC = 63^\circ$ .  
(3 marks)

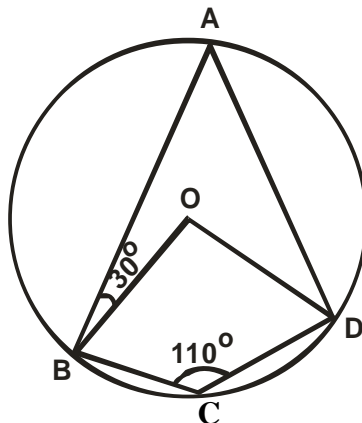


8. Solve for x in the equation

$$27^{x-1} \times 3^{x+1} = 729$$

(3 marks)

9. In the figure below ABCD is a cyclic quadrilateral. Point O is the centre of the circle.  
 $\angle ABO = 30^\circ$  and  $\angle BCD = 110^\circ$ .



Calculate the size of angle ADB.

(2 marks)

**10.** Three people Mutua, Wanza and Kiilu contributed money to start a business. Mutua contributed a quarter of the money and Wanza two fifths of the remainder. Kiilu's contribution was one and a half times that of Mutua. They borrowed the rest of the money from a bank which was sh.60,000 less than Kiilu's contribution. Find the total amount required to start the business. **(4 marks)**

**11.** Simplify  $\frac{\sqrt{3}}{\sqrt{3}-\sqrt{2}}$  **(3 marks)**

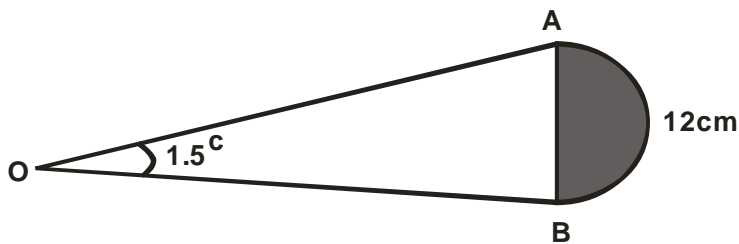
**12.** Expand  $\left(2 - \frac{1}{4}x\right)^5$  and use the first three terms to find the value of  $1.975^5$  to four significant figures. **(4 marks)**

**13.** The radius of a spherical ball is measured as 7cm correct to the nearest centimeter. Determine to 2 decimal places, the percentage error in calculating the surface area of the ball. **(3 marks)**

14. Given that  $\tan \theta = \frac{1}{\sqrt{5}}$  where  $\theta$  is an acute angle, find without using tables or calculator  $\sin(90 - \theta)$  leaving your answer in the simplified surd form. **(4 marks)**

15. Given that  $a = 1.2$ ,  $b = 0.02$  and  $c = 0.2$ , express  $ac \div b$  in the form  $\frac{m}{n}$  where  $m$  and  $n$  are integers. **(3 marks)**

16. The diagram below shows sector AOB of a circle centre O.  
 $\angle AOB = 1.5^\circ$  and arc AB is of length 12cm.



- a) Determine the radius OA of the circle. **(1 mark)**
- b) Calculate the area of the shaded region. Give your answer correct to 3 s.f. **(3 marks)**

**SECTION II (50 MARKS)**

**Answer any FIVE questions from this section**

17. The table below shows the taxation rates.

Income (£ per month)	Rate %
0 – 382	10
383 – 754	15
755 – 1126	20
1127 – 1498	25
1499 – 1870	30
1871 – 2242	35
Over 2242	40

Mueni is housed by her employer but pays a nominal rent of sh.1200 per month. She is entitled to a personal relief of sh.950 per month. If her monthly P.A.Y.E is sh.7024,

a) Calculate her gross income. **(5 marks)**

b) In addition to the tax the following monthly deductions are also made

Sacco shares                      Ksh. 1200

Coop loan                      Ksh.1500

Union dues                      Ksh.300

Calculate

i) Her monthly salary. **(3 marks)**

ii) Net monthly salary **(2 marks)**

**18.** Use a ruler and compasses only for all construction in this question.

**a)** Construct a triangle ABC in which  $AB = 8\text{cm}$ ,  $BC = 7.5\text{cm}$  and  $\angle ABC = 112\frac{1}{2}^\circ$ . **(3 marks)**

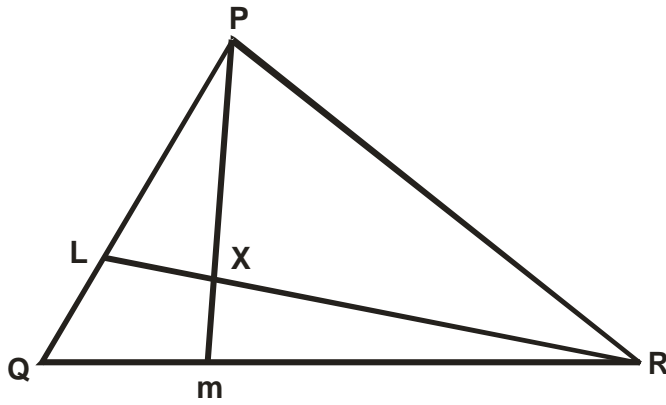
**b)** Measure the length of AC. **(1 mark)**

**c)** By shading the unwanted region show the locus of P within the triangle ABC such that  $AP \leq BP$ ,  $AP > 3\text{cm}$ . Mark the required region as P. **(3 marks)**

**d)** Construct a normal from C to meet AB produced at D. **(1 mark)**

**e)** Locate the locus of R in the same diagram such that the arc of triangle ARB is  $\frac{3}{4}$  the arc of the triangle ABC. **(2 marks)**

19. In the triangle PQR below, L and M are points on PQ and QR respectively such that  $PL : LQ = 1 : 3$  and  $Qm : mR = 1 : 2$ . Pm and RL intersect at X. Given that  $PQ = b$  and  $PR = c$



a) Express the following vectors in terms of  $b$  and  $c$ .

i)  $\underline{QR}$  **(1 mark)**

ii)  $\underline{Pm}$  **(1 mark)**

iii)  $\underline{RL}$  **(1 mark)**

b) By taking  $\underline{PX} = h\underline{Pm}$  and  $\underline{RX} = k\underline{RL}$  where  $h$  and  $k$  are constants. Find two expressions of  $\underline{PX}$  in terms of  $h$ ,  $k$ ,  $b$  and  $c$ . Hence determine the values of the constants  $h$  and  $k$ .

**(6 marks)**

c) Determine the ratio  $\underline{LX} : \underline{XR}$ . **(1 mark)**

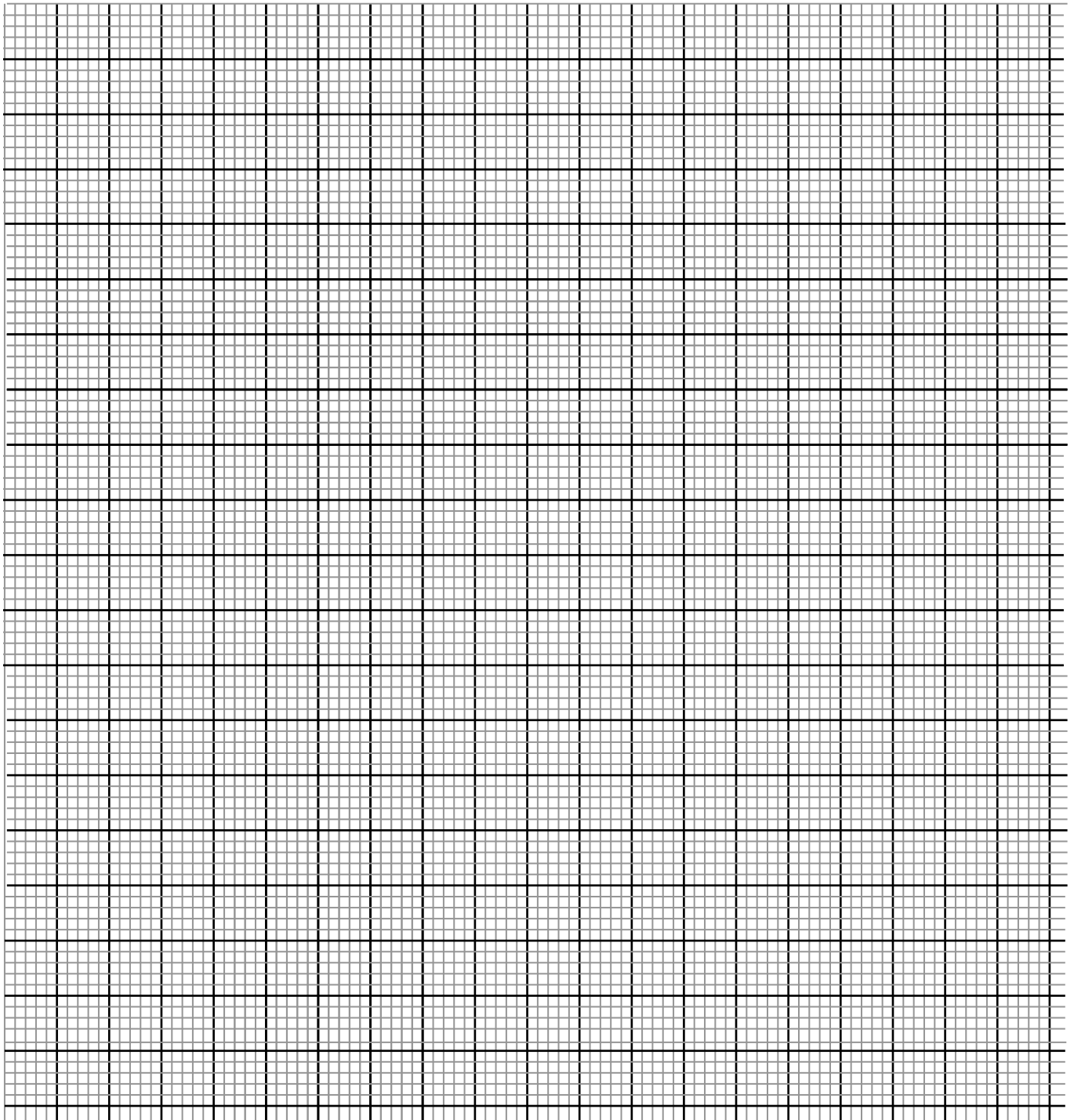


**20.** OABC is a parallelogram with vertices O(0, 0), A(2, 0), B(3, 2) and C(1, 2).

O'A'B'C' is the image of OABC under a transformation matrix  $\begin{pmatrix} -2 & 0 \\ 0 & -2 \end{pmatrix}$ .

a) i) Find the coordinates of O'A'B'C' **(2 marks)**

ii) On the graph provided, draw OABC and O'A'B'C' **(2 marks)**



**b) i)** Find  $O^{\text{II}}A^{\text{II}}B^{\text{II}}C^{\text{II}}$ , the image of  $O^{\text{I}}A^{\text{I}}B^{\text{I}}C^{\text{I}}$  under the transformation matrix  $\begin{pmatrix} 1 & 0 \\ 0 & -2 \end{pmatrix}$ .  
**(2 marks)**

ii) On the same grid, draw  $O^{\text{II}}A^{\text{II}}B^{\text{II}}C^{\text{II}}$ . **(1 mark)**

**c)** Find the single matrix that maps  $O^{\text{II}}A^{\text{II}}B^{\text{II}}C^{\text{II}}$  onto  $OABC$ . **(3 marks)**

**21.** An aircraft leaves town P ( $30^{\circ}\text{S}$ ,  $17^{\circ}\text{E}$ ) and moves directly towards Q ( $60^{\circ}\text{N}$ ,  $17^{\circ}\text{E}$ ). It then moved at an average speed of 300 knots for 8 hours Westwards to town R. Determine

**a)** The distance PQ in nautical miles. **(2 marks)**

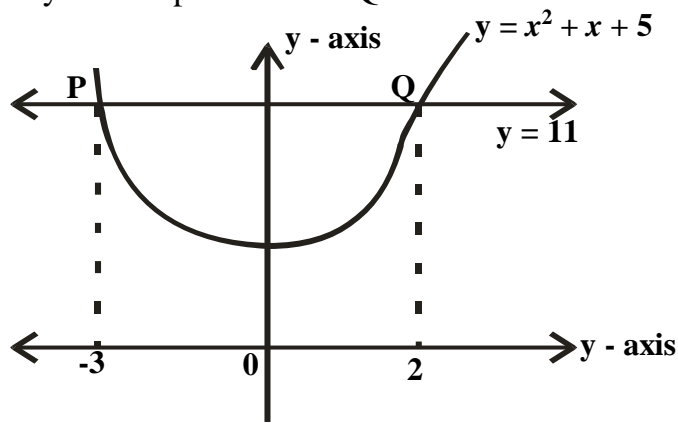
**b)** The position of town R. **(4 marks)**

**c)** The local time at R if local time at Q is 3.12p.m **(2 marks)**

**d)** The total distance moved from P to R in kilometers. (Take  $1\text{nm} = 1.853\text{km}$ ) **(2 marks)**

22. The figure below is a sketch of a curve whose equation is  $y = x^2 + x + 5$ .

It cuts the line  $y = 11$  at points P and Q.

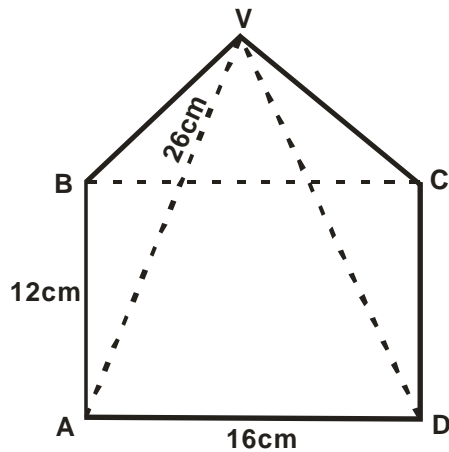


a) Find the area bounded by the curve  $y = x^2 + x + 5$  and the line  $y = 11$  using the trapezium rule with 5 strips. **(5 marks)**

b) Calculate the difference in the area if the mid-ordinate rule with 5 ordinates was used instead of the trapezium rule. **(5 marks)**

23. The figure below represents a rectangular based pyramid VABCD.  $AB = 12\text{cm}$  and  $AD = 16\text{cm}$ .

Point O is vertically below V and  $VA = 26\text{cm}$ .



Calculate:

a) The height, VO, of the pyramid. **(4 marks)**

b) The angle between the edge VA and the plane ABCD. **(3 marks)**

c) The angle between the planes VAB and ABCD. **(3 marks)**

**24.** The distances  $S$  metres from a fixed point  $O$ , covered by a particle after  $t$  seconds is given by equation

$$S = t^3 - 6t^2 + 9t + 5$$

**a)** Calculate the gradient to the curve at  $t = 0.5$  seconds. **(3 marks)**

**b)** Determine the values of  $S$  at the maximum and minimum turning points of the curve.

**(4 marks)**

**c)** On the space provided, sketch the curve of  $S = t^3 - 6t^2 + 9t + 5$ . **(3 marks)**

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1 COMPUTER STUDIES

PAPER 1

TIME: 2½ HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

### INSTRUCTIONS TO CANDIDATES:

- 1) Write your name, index number and school in the spaces provided above.
- 2) Write the date of examination and sign in the spaces provided.
- 3) This paper consists of **two** sections.
- 4) Answer **all** the questions in section **A**.
- 5) Answer question **16** (compulsory) and **any other three** questions from section **B**.
- 6) All answers **must** be written in the spaces provided in this question paper.
- 7) Candidates should check to ensure that all pages are printed as indicated and no questions are missing.

### FOR EXAMINER'S USE ONLY

SECTION	QUESTION	MAXIMUM SCORE	ACTUAL SCORE
A	1 – 15	40	
B	16	15	
	17	15	
	18	15	
	19	15	
	20	15	
		<b>TOTAL SCORE</b>	

**SECTION A (40 MARKS)**

*Answer all the questions in this section in the spaces provided*

1. State the **two** functions of the control unit. **(2 marks)**

---

---

2. Explain **four** reasons which make microcomputers suitable for personal computing work. **(2 marks)**

---

---

---

---

3. State the functions of the following keyboard key combinations. **(3 marks)**

a) CTRL + ESC

---

b) ALT + F4

---

c) CTRL + ALT + DEL

---

4. Distinguish between an integrated software and a software suite. **(2 marks)**

---

---

---

5. Differentiate between embedded computers and dedicated computers. **(2 marks)**

---

---

---

---

6. Give **three** reasons why a company may prefer a tailor made software over off the shelf software. **(3 marks)**

---

---

---

---



7. Explain the function of the following registers. **(2 marks)**

a) Instruction registers

---

---

b) Address registers

---

---

8. a) Explain how a computer system can be protected from intruders. **(2 marks)**

---

---

---

b) State any **two** laws governing protection of information. **(2 marks)**

---

---

9. a) What is the meaning of graphics as used in word processing? **(1 mark)**

---

---

b) Give **two** sources of graphics in the computer. **(2 marks)**

---

---

10. a) State the cursor action when the following keyboard keys are pressed. **(2 marks)**

i) Delete key

---

---

ii) Insert key

---

---

iii) Pgup (page up) key

---

---

iv) Pgdwn (page down) key

---

---

11. **Identify** the parts of the following e-mail address labeled A, B, C and D. **(4 marks)**

Ict@kenyaonline.co.ke

↑  
A

↑  
B

↑  
C

↑  
D

- A \_\_\_\_\_
- B \_\_\_\_\_
- C \_\_\_\_\_
- D \_\_\_\_\_

12. a) What is a search engine? (1 mark)

---

---

b) Give **four** examples of search engines you know. (2 marks)

---

---

---

---

13. a) Define the following terms as used in a worksheet. (2 marks)

i) Columns

---

---

ii) Rows

---

---

b) Distinguish between absolute cell reference and relative cell reference. (2 marks)

Relative Referencing

---

---

Absolute referencing;

---

---

14. a) State **one** data processing file. (1 mark)

---

b) Explain the function of the file named above in 14 (a). (2 marks)

---

---

15. Give **one** reason to the growth of communication industry in Kenya. **(1 mark)**

---

---

**SECTION B: (60 MARKS)**

*Answer question **16** and any other **three** questions from this section*

16. a) List **two** examples of;

i) Third generation languages. **(2 marks)**

---

---

ii) Object oriented languages. **(2 marks)**

---

---

b) Define **(2 marks)**

i) Object code

---

---

ii) Source code

---

---

c) Differentiate between a compiler and an interpreter. **(2 marks)**

---

---

---

d) A car rental firm leases its cars for Kshs. 2500.00 per day. The manager gives a discount based on the number of days that the car is rented. If the rental period is greater than or equals to 7 days then a 25% discount is given. Write a pseudocode to accept a car number and the rental period, and calculate the total amount earned by the company when a car is leased.**(7 marks)**

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**17. a) State **three** parameters that determines the magnitude of a number. (3 marks)**

---

---

---

b) Using two's complement, show how the arithmetic below would be carried out on a 8 - bit computer system  $(+54) - (+29)$ . (5 marks)

c) Using one's complement, perform the following binary arithmetic leaving the answer in decimal notation. **(5 marks)**

$$1101_2 - 100101_2$$

d) Differentiate between a word and a word length. **(2 marks)**

---

---

---

18. a) State the meaning of the following operating systems terms:

i) Interrupt **(1 mark)**

---

---

ii) Trouble shooting. **(1 mark)**

---

---

iii) Clock speed. **(1 mark)**

---

---

b) Differentiate the following. **(4 marks)**

i) Disk compression and disk defragmentation.

---

---

---

ii) Disk partitioning and disk formatting.

---

---

---

c) The operating system has several functions in a computer.

Explain how the operating system performs the following functions.

i) Error handling **(3 marks)**

---

---

---

ii) Resource control and allocation **(3 marks)**

---

---

---

---

d) Computer can fail to work due to problems associated with operating system.

Explain how the following problems can be corrected. **(2 marks)**

i) Runtime problems

---

ii) Corrupted registry

---

**19. a)** Giving examples, differentiate between hard system and soft system. **(4 marks)**

---

---

---

---

**b)** Explain the following system characteristics. **(2 marks)**

i) System control.

---

---

ii) Sub-systems

---

---

c) i) What is a closed system? **(1 mark)**

---

---

ii) Give **three** characteristics of a closed system. **(2 marks)**

---

---

---

d) Why is feedback necessary in a system? **(2 marks)**

---

---

e) Draw a diagram to show a system that is controlled through feedback. **(4 marks)**

**20. a)** Define the term Multiplexing as used in networking. **(1 mark)**

---

---

b) Describe the following signal wave properties. **(3 marks)**

i) Frequency of a wave

---

---

iii) Wavelength

---

---

iv) Amplitude

---

---

c) Use a diagram to distinguish between ring and star network topologies. **(2 marks)**

d) **Give one** advantage and **one** disadvantage of each of (c) above. **(4 marks)**

---

---

---

---

e) i) What is virtual reality? **(1 mark)**

---

---

ii) Describe **four** essential equipment to achieve virtual reality. **(4 marks)**

---

---

---

---



# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

# COMPUTER STUDIES

PAPER 2

TIME: 2½ HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

451/2

# COMPUTER STUDIES

PAPER 2

(PRACTICAL)

TIME: 2½ HOURS

### INSTRUCTIONS TO CANDIDATES

- (a) *This paper has **two** questions.*
- (b) *Answer all the **questions**.*
- (c) *All questions carry equal **marks**.*
- (d) *Type your name and index number at the right hand corner of each print out.*
- (e) *Write your name and index number on the storage medium provided.*
- (f) *Write your name and version of software used for each question attempted.*
- (g) *Passwords **should not** be used while saving in your work.*
- (h) *Make a printout of the answers on the answer sheets provided*
- (i) *Hand all the **print outs** and the **storage medium***

1. a) Kirui’s milling company limited has given you the details below to be used in calculating expenses incurred during two quarters of the year as indicated. Use a spreadsheet package to enter the details, and save your work as Expenses 1. **(10 marks)**

	A	B	C	D	E	F	G
1	<b><u>KIRUI’S MILLING COMPANY LIMITED</u></b>						
2	<b><u>P.O BOX 625 NAKURU</u></b>						
3		<b>First quarter</b>			<b>Second quarter</b>		
4		<b>January</b>	<b>February</b>	<b>March</b>	<b>April</b>	<b>May</b>	<b>June</b>
5	Production cost	15642	14687	18741	19457	15412	15441
6	Transportation	1564	1469	1874	1946	1541	1544
7	Warehousing	1125	1056	1347	1398	1107	1109
8	Promotion	2564	2407	3071	3188	2525	2530
9	Salary	4525	4248	5420	5626	4456	4465

b) i) Copy the details of Kirui’s milling company limited to sheet 2 of your worksheet. **(2 marks)**

ii) Add a column called “Total” and calculate the Total production cost of the two Quarters. **(4 marks)**

iii) Use relative referencing to calculate the total for the other expenses. **(4 marks)**

c) i) Calculate the total expenses for each month so as to give the results as “Total expenses” on row 10. **(4 marks)**

ii) On the paper provided, write the formula used to calculate the expenses for the month of April. **(2 marks)**

d) i) Use absolute referencing to calculate the cumulative total expenses for the two quarters in cell H10. **(4 marks)**

ii) Write the formula used to get the cumulative total on the paper provided. **(2 marks)**

iii) Calculate the percentage of total expenses of the respective months and display the results on row 11 as “percentage of total expenses”. **(4 marks)**

iv) Write the formulae used to get the percentage of May. **(2 marks)**

v) Draw a line graph to illustrate the percentage of the total expenses for the six months indicating the months. Save your work as Expenses 2. **(10 marks)**

vi) Print Expenses 1 and Expenses 2. **(2 marks)**

2. a) A hospital uses a database to maintain data about its employees.

Create a database file named **EMPLOYEE**. **(1 mark)**

b) Create a table called **EMPLOYEE 1** with the following fields and hence enter data into it as shown in fig 1 below. NB: Choose an appropriate primary key. **(14 marks)**

- EMP NO
- NAME
- DATE OF BIRTH
- DEPARTMENT
- BASIC PAY

**Fig 1**

<b>Emp</b>	<b>Name</b>	<b>Date of birth</b>	<b>Department</b>	<b>Gross pay</b>
01	John Kirui	16/2/1972	Computer	28000
02	Margaret Wairimu	2/2/1960	Medical	30000
03	Jane Cheronon	2/5/1970	Management	15000
04	Victor Oduor	8/12/1981	Accounts	25000
05	Harry Wanyama	23/6/1983	Medical	30000
06	Jacob Kiprono	19/4/1973	Management	45000
07	Ali Mohammed	1/1/1969	Medical	30000
08	Daniel Omondi	3/5/1983	Accounts	25000
09	Everlyne Kitune	11/3/1971	Medical	20000
10	Nancy Kerubo	22/9/1980	Medical	20000

c)i) Insert **two** new fields to hold the employee’s profession and deductions. **(4 marks)**

ii) Data for included fields is as follows;

**Profession**

Mohammed, Wanyama and Wairimu are Doctors. Oduor and Omondi are accountants. Kiprono is an Administrator, Kirui is a systems analyst and Cheronon is a secretary.

**Deductions**

Emp no	Amount
07, 05, 02	8,000
04, 08	7,500
06	10,000
01	12,000
03	3,500
09, 10	4,000

Enter the above data into the respective fields. **(6 marks)**

iii) Sort the records in ascending order based on the name field and save as EMPLOYEE 2. **(3 marks)**

d) i) From EMPLOYEE 2, extract a list of employees who were born between 1960 and 1972 both years inclusive and are accountants, nurses or doctors. Write down on paper provided the query expression you used to extract the data. Save the extracted list as LIST1. **(8 marks)**

ii) Remove the date and occupation criteria on LIST 1. Add a calculated field to calculate the Net pay of all employees as Gross Pay - Deductions. Save as LIST 2. **(5 marks)**

e) Generate a columnar report based on LIST 2 with the following fields; Emp no, Name, Department and Net Pay. Sum up the Net Pay for all employees in the report. Save your report as REPORT.

**(6 marks)**

f) Print **EMPLOYEE1, EMPLOYEE2, LIST1, LIST 2** and **REPORT**. **(3 marks)**

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1 HOME-SCIENCE

PAPER 1

TIME: 2½ HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

441/1

## HOME-SCIENCE

PAPER 1

THEORY

### INSTRUCTIONS TO CANDIDATES

- (a) Write your name, school and index number in the spaces provided above.
- (b) Sign and write the date of the examination in the spaces provided above.
- (c) This paper consists of **three** sections **A**, **B** and **C**.
- (d) All the questions in Section **A** and **B** are compulsory.
- (e) Answer any other **two** questions in section **C**.
- (f) Answers to all the questions must be written in the spaces provided.

### FOR OFFICIAL USE ONLY

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1 – 20	40	
B	21	20	
C		20	
		20	
TOTAL SCORE		100	

**SECTION A (40 MARKS)**

*Answer ALL the questions from this section in the spaces provided*

1. Give **two** reasons for folding clothes when storing. **(2 marks)**

---

---

2. Give **two** reasons for thawing frozen food completely before cooking. **(2 marks)**

---

---

3. State **two** points to note on the care of ears when cleaning your face daily. **(2 marks)**

---

---

4. Give **two** importance of classifying clothes before storage. **(2 marks)**

---

---

5. Identify **two** ways of preventing insect bites and stings. **(2 marks)**

---

---

6. Mention **two** disadvantages of cross method of ventilating a room. **(2 marks)**

---

---

7. State **two** disadvantages of roasting as a method of cooking food. **(2 marks)**

---

---

8. Name **two** categories of convenience foods. **(2 marks)**

---

---

9. Differentiate between a dart and a pleat in clothing construction. **(2 marks)**

---

---

10. State **two** ways of saving energy when lighting a home. **(2 marks)**

---

---

11. Define simmering in cookery. (1 mark)

---

---

12. List **two** food substances used for coating food during deep frying of foods. (2 marks)

---

---

13. Identify **two** characteristics of fabric which develop static electricity. (2 marks)

---

---

14. State **two** advantages of using self-neatening seams in garment construction. (2 marks)

---

---

15. Give **two** causes of drowning in children. (2 marks)

---

---

16. Give **two** reasons why aluminium is widely used in making kitchen equipment (2 marks)

---

---

17. Give **two** functions of water in the body. (2 marks)

---

---

18. State **two** properties that make linen suitable for making kitchen tea towels. (2 marks)

---

---

19. Mention **three** qualities of a well-made seam. (3 marks)

---

---

---

20. Give **two** reasons why hot water is not suitable for cleaning wooden surfaces. (2 marks)

---

---

**SECTION B (20 MARKS)**

**COMPULSORY**

**21.** You are to visit your grandmother over the weekend. Describe how you would;

a) Launder her acrylic sweater.

**(10 marks)**

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

b) Clean her earthen water pot.

**(5 marks)**

---

---

---

---

---

---

- c) Clean her gourd for storing porridge. **(5 marks)**

---

---

---

---

---

---

---

---

---

---

---

### **SECTION C (40 MARKS)**

*Answer any TWO questions from this section in the spaces provided after question 24*

- 22. a)** State **six** signs of pregnancy. **(6 marks)**
- b) Identify any **six** problems that may arise during pregnancy which need to be reported to the doctor. **(6 marks)**
- c) Mention any **three** points on meeting the following needs of an expectant woman.
- i) Physical needs **(3 marks)**
- ii) Emotional needs **(3 marks)**
- d) Define haemorrhoids and give their cause in pregnancy. **(2 marks)**
- 23. a)** Give **five** reasons for caring for the stick at home. **(5 marks)**
- b) Mention **five** factors to consider when packing meals. **(5 marks)**
- c) State **five** factors to consider when choosing fastenings. **(5 marks)**
- d) Discuss **five** ways of conserving nutrients when cooking vegetable. **(5 marks)**
- 24. a)** State **six** desirable qualities of fabric for making curtains. **(6 marks)**
- b) Explain **four** uses of openings in garment construction. **(8 marks)**
- c) Explain **three** reasons for ironing / pressing garments at every stage of construction. **(6 marks)**



# **NATIONAL SCHOOLS PREMOCK**

## **KCSE 2023 SERIES 1 HOME-SCIENCE**

**441 / 2**

**PAPER 2**

**CLOTHING AND TEXTILES (PRACTICAL)**

**CONFIDENTIAL**

---

**Each candidates is required to have the following**

- a) Poplin material*
- b) Sewing thread*
- c) Embroidery thread*

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1 HOME-SCIENCE

PAPER 2

TIME: 2½ HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

441/2

## HOME SCIENCE

(CLOTHING CONSTRUCTION)

PAPER 2

PRACTICAL

TIME: 2½ HOURS

### INSTRUCTIONS TO CANDIDATES

- a) This paper consists of *three* printed pages.
- b) Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.
- c) Candidates are advised to ensure that the pattern pieces match with sketches shown on question paper.

A pattern of a pair of shorts is provided. You are advised to study the sketches, instructions and the layout carefully before you begin the test.

## **MATERIALS PROVIDED.**

1. Pattern pieces.
  - A short front
  - B Short back
  - C Pocket
  - D Waistband
  - E Front short facing
  - F Back short facing
2. Plain light weight cotton fabric 50cm long by 90cm wide.
3. Cotton sewing thread to match the fabrics
4. One large envelope

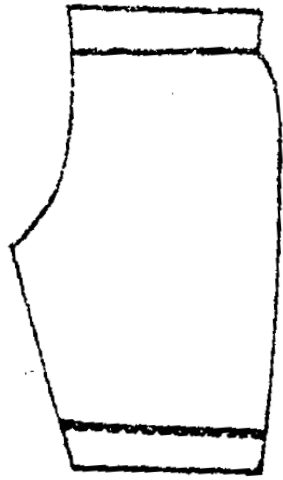
## **THE TEST**

Using the materials provided cut out and make the left leg of the short to show the following processes.

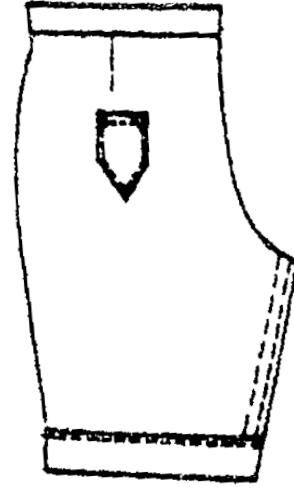
- a) Making of the back dart.
- b) Preparing and attaching the pocket.
- c) Working of the inner leg seam using machine fell seam.
- d) Working of the side seam using an open seam.
- e) Attaching the facings onto the lower edge of the shorts.
- f) Preparing and attaching the waistband.
- g) Finishing the waistband using hemming stitches.

At the end of the examination firmly sew on your work on a single fabric a label bearing your name and index number. Remove the needles and pins from your work then fold your work neatly and place it in the envelope provided. Do not put scrapes of fabric in the envelope.

VIEW OF PAIR OF SHORTS

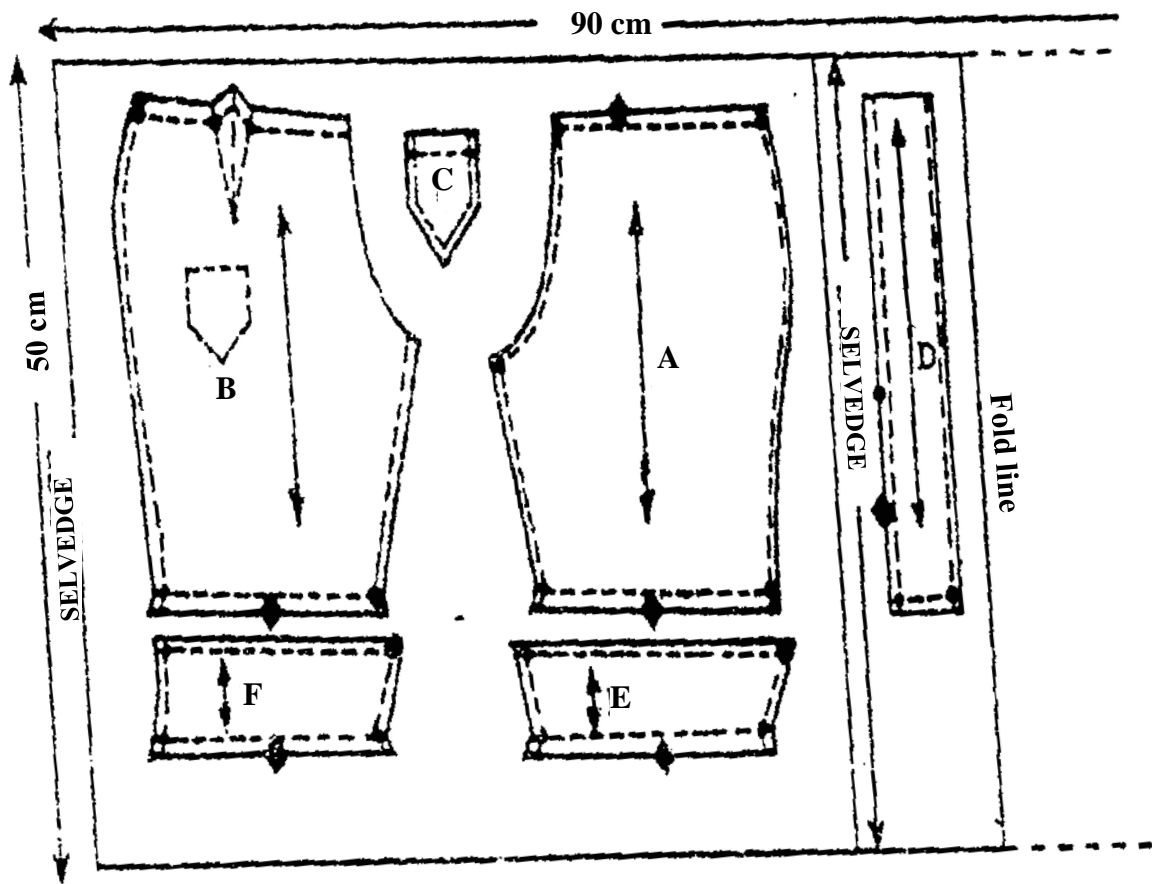


FRONT



BACK

LAYOUT (NOT DRAWN TO SCALE)



# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1 HOME-SCIENCE

PAPER 3

TIME: 1¾ HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

## HOMESCIENCE (FOODS AND NUTRITION)

PAPER 3

PRACTICAL

TIME: 1¾ HOURS

### INSTRUCTIONS TO CANDIDATES

**PLANNING SESSION: 30 MINUTES**

**PRACTICAL TEST SESSION: 1¼ HRS**

- 1. Read the test carefully*
- 2. Write your name, school, index number, signature and date on every sheet of paper used.*
- 3. You are advised to spend 30 minutes to come up with a plan of work which will be used for the practical.*
- 4. Textbooks and recipes may be used during the planning session as reference materials.*
- 5. You will be expected to keep to your order of work during the practical session.*
- 6. You are only **allowed** to take away your reference materials at the end of the planning session.*
- 7. You are **not** allowed to bring **additional notes** to the practical session.*
- 8. This paper consists of 2 printed pages.*
- 9. Candidates should check to ensure that all pages are printed as indicated and no questions are missing.*

## **THE TEST**

Your two cousins spent the night at your house. Using all the ingredients listed below prepare, cook and present two suitable items for breakfast for the three of you. Include a beverage.

## **INGREDIENTS**

- Oil
- Salt
- Eggs
- Sugar
- Tea leaves
- Self-raising wheat flour / plain wheat flour
- Milk
- Sweet potatoes / Arrow roots

## **PLANNING SESSION: 30 MINUTES**

For each task listed below, use separate sheets of paper and make duplicate copies using carbon paper.

### **Then proceed as follows:**

1. Identify the dishes and write the recipes
2. Write your order of work.
3. Make list of the foodstuff and equipment you will require.

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

# FRENCH

PAPER 1

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

501/1

# FRENCH

PAPER 1

(LISTENING COMPREHENSION AND DICTATION)

TIME: 2 HOURS

### INSTRUCTIONS FOR DICTATION:

- The passage is **read** through once. **Don't** write at this stage. You must listen carefully.
- The passage will then be read in short sections, each section being repeated once.  
You will **write** down each section (without the repeats) as it is read. You **must** think carefully about what you are writing paying attention to spelling and grammatical constructions.
- Finally the passage will be read straight through once again. During this final reading you will be able to correct your work and you will also be given five minutes after the final reading to complete your checking.

# INSTRUCTIONS FOR LISTENING COMPREHENSION

- You have **five** minutes to read through the question paper before the exam begins.
- You will **hear** several recorded passages
- Answer **all** the questions in the spaces provided in the answer sheet.
- At the end of the recording, you have 5 minutes to go through your work.

## SECTION I

### Listening Comprehension

*Write answers to questions 1-7 in the spaces provided.*

#### Passage I

1. (a) D'après l'annonce, quelle est la première émission du soir que vous pouvez voir et  
a quelle heure ?

Nom.....(½pt)

L'heure.....(½pt)

- (b) Le match international de football est entre ..... et  
.....(1pt)

- (c) La dernière transmission sera un film, qui s'appelle ..... à  
.....heures ..... (1pt)

#### Passage II

2. (a) Dans l'annonce, on parle d'un.....( ½ pt)  
(b) Il est entre.....voitures et.....camions(½pt)

#### Passage III : Annonce A.

3. (a) Où est-ce qu'on arrive dans dix minutes ?  
à ..... ( ½ pt)  
(b) Qu'est-ce qu'on demande aux voyageurs de faire?  
.....( ½ pt)



**Announce B**

- (c) Donnez deux détails sur le petit garçon
  - (i).....( ½ pt)
  - (ii).....( ½ pt)
- (d) Qui doit se présenter ?  
.....( ½ pt)

**Announce C**

- (e) D’après l’annonce, il y aura un concours de dance le.....(i)  
au.....(ii)municipal. Seulement  
les.....(iii) peuvent y participer. Un prix  
sera offert au.....(iv) (2 pts)

**Passage IV**

- 4. (a) D’après la conversation, on peut chercher.....au magasin  
Jourdin. ( ½ pt)
- (b) Le magasin ouvre l’après midi à .....( ½ pt)
- (c) Il faut payer.....( ½ pt)

**Passage V**

- 5. (a) L’auditeur préfère.....(i) mais il a mal  
au.....(ii) ( 1pt)
- (b) Le meilleur sport pour éviter ce mal c’est  
.....

**Passage VI**

- 6. (a) Cet hiver on peut aller à ..... ( ½ pt)
- (b) Ça fait combien cette offre ?..... ( ½ pt)
- (c) Cette offre exceptionnelle est valable du.....  
à .....(1 pt)

**Passage VIII**

7. (a) Il pleuvra dans quelles parties ? :

(i).....

(ii) .....( 1pt)

**SECTION II**

**Dictation**

Write the dictation passage in the spaces provided.

**(5pts)**

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

**SECTION III**

**Composition**

**Write your two compositions in the pages provided.:**

1. ***In 120-150 words, write in French on:***

***Either***

a) Vous êtes le /la guide touristique et vous êtes sur le point d'accueillir les touristes canadiens dans votre pays. Ecrivez l'itinéraire.

(10pts)

***or***

b) Vous êtes logé à l'hôtel Stem à Nakuru et vous n'êtes pas du tout content(e) avec la chambre et les services offerts. Rédigez une lettre pour porter plainte.

(10pts)

2. ***In 150-180 words, write in French a composition :***

***Either***; beginning as follows:

a) J'étais tout juste sur le point de monter dans le bus ... **(15pts)**

***or***

b) Ending as follows.

.....et c'est pourquoi je n'y irais jamais.

**(15pts)**

# NATIONAL SCHOOLS PREMOCK

## KCSE 2023 SERIES 1

# FRENCH

PAPER 2

TIME: 2 HOURS

NAME.....

SCHOOL..... SIGN.....

INDEX NO..... ADM NO.....

501/2

# FRENCH

PAPER 2

(READING COMPREHENSION AND GRAMMAR)

TIME: 2 HOURS

### INSTRUCTIONS TO CANDIDATES

- Write your name and index number in the spaces provided above
- This paper consists of *two* sections
- Answer *all* questions in the spaces provided

### For examiner's use only

SECTION	MAX SCORE	CANDIDATE'S SCORE
I	15	
II	15	
TOTAL SCORE		

**SECTION I (15mks)**

**Reading Comprehension**

**PASSAGE 1**

Après le coup d'état militaire au pays KAFIRA, le calme est finalement revenu. Le seul fait justifiable de ces derniers jours a été la libération : Le 2 novembre ; c'est -à- dire deux jours après le coup d'état, le président de la République de KAFIRA a pu retourner chez lui, dans la capitale, grâce à l'action énergique de ses députés.

Les militaires qui avaient pris le pouvoir avaient demandé aux députés de continuer à server le pays ceux- ci ont accepté à la seul condition: que le président soit libéré; ce qui été fait immédiatement:

1. (a) Où se trouve le président actuellement ? ( ½ pnt)  
.....
- (b) Quel jour a eu lieu le coup d'état? ( ½ pnt)  
.....
- (c) Qu'est-ce que ça veut dire 'La république' ? (1pnt)  
.....
- (d) Comment les députés ont-ils pu obtenir la libération du président ? (1pnt)  
.....

**PASSAGE II**

**L'ALGERIE ET LA FRANCE**

L'Algérie est un pays d'Afrique du nord. De 1830 à 1962, l'Algérie est un territoire français, mais à partir de 1956, une guerre éclate. Les algériens veulent être libres et ne plus appartenir à la France. En 1962, après plusieurs années de guerre, l'Algérie devient libre mais les relations entre la France et l'Algérie restent fortes. En effet beaucoup d'algériens viennent vivre en France. Les deux pays continuent à faire des affaires ensemble. Depuis 1992, la situation est devenue très dure en Algérie et les relations avec la France plus difficile à cause de la guerre.

- 2 (a) Quels sont les sens de ces mots?
- i) ..... l'Algérie est un territoire français  
.....(½pt)
- ii) .... Libre  
..... (½pt)
- (b) Donnez deux points dans le passage qui montre que les relations entre la France et l'Algérie restent fortes (1pt)
- (i).....
- (ii).....
- (c) La guerre a causé quoi après 1992 ?
- (i)  
.....
- (ii).....

**PASSAGE III**

Une française de 29 ans vivait à Londres. Mitchell Vilimek est portée disparue depuis dimanche dernier et la police britannique a lancé un appel aux témoins pour la retrouver, rapport le parisien-Dimanche. Inquiet, un ancien petit ami de la femme, qui travaille comme serveur dans la capitale britannique, a prévenu la police de Twickenham, quartier où elle réside, précise le journal.

- 3. (a) Dans ce texte, quel est le problème ?  
.....(1/2pt)
- (b) Qu'est-ce que la police fait pour résoudre ce problème?  
.....(1/2pt)
- (c) Qu'est-ce qui a fait l'ancien petit ami de Mitchell et pourquoi?  
.....(1pt)
- (d) Qu'est-ce que l'ancien ami de Mitchell fait pour gagner la vie?  
.....(1/2pt)
- (e) Où habite Mitchell?  
.....(1/2pt)

**PASSAGE IV**

Il y avait dans un pays, un jeune homme dont les parents, à sa naissance, avaient consulté Ifa, et Ifa avait dit: "Cet enfant ne doit pas se marier."

Il grandissait quand un jour, au marché, passant près de l'étalage d'une jeune femme, il a entendu quelqu'un qui lui adressait la parole ainsi: "jeune home, je veux devenir ta femme." Il connaissait l'ordre d'Ifa et s'est contenté de répondre: "Je ne peux pas me marier."

La jeune femme a écouté, mais résolu à devenir sa femme, elle a passé outre. Apprenant un jour que le jeune homme ne demeurait pas loin de là, la jeune femme est allée le trouver, lui a parlé et a fait tant si bien qu'il a accepté de la prendre pour épouse.

- 4. (a) Quel a été l'ordre d'Ifa?  
.....(1pt)
- (b) Où travaillait la jeune femme?  
.....(1pt)
- (c) Pourquoi le jeune homme n'a pas respecté l'ordre d'Ifa?  
.....(1pt)
- (d) Trouvez dans le texte les synonymes de:
  - (i) habitait  
.....(1/2pt)
  - (ii) épouse  
.....(1/2pt)

**PASSAGE V**

**“ICI ON LIVRE”**

Sous le titre amusant “ici on livre” se cache une opération lancée en France au printemps dernier, en visant à collecter quantité de livres en bon état. Romans, livres éducatifs ou scientifiques, romans policiers et autres trouveront ainsi une deuxième vie dans les bibliothèques des pays francophones les plus défavorisés. Ce geste illustre la volonté des chefs d’état de la francophonie d’orienter leurs actions vers le concert et la coopération.

5. (a) De quoi s’agit-il dans le texte?

.....(½pt)

(b) Qui sont responsable de l’opération dont on parle?

.....(½pt)

(c) Quelle sera la destination des livres mentionnés?

.....(1pt)

**SECTION II (15 MARKS)**

6. *Beginning as indicated, complete the sentences below, making all appropriate changes. Avoid unnecessary repetitions.*

**Example.**

- Tu vois toujours tes amis?
- Non, \_\_\_\_\_
- Non, je ne les vois plus.

(a) Les vacances dernières, toute la famille est allée à Mombasa.  
Les vacances

prochaines,.....(1pt)

(b) Qu’est-ce qu’elle fait? On ne sait pas  
Ils ne savent

pas..... (1pt)

(c) Pierre est très malade; il va à l’école quand même.  
Bien

qu’il..... (1pt)

(d) Je ne peux pas aller à l’école, parce que je suis malade.  
Si

.....(1pt).

(e) Le facteur délivre les lettres chaque matin  
Les

lettres.....(1pt)

(f) Hélène, fais ton travail!  
Hélène, il faut

que.....(1pt).

(g) Avez-vous trouvé quelqu'un en classe?

Non,.....(1pt)

**3. Rearrange the following telephone conversation to make a coherent conversation. ( 3 points)**

- (i) Moi aussi
- (ii) Allo! C'est le 07-21- 65-42- 46 ?
- ( iii) bonjour Linda, ici Elizabeth.
- (iv) Oui, Qui est à l'appareil?
- ( v) Ah! Eliza..... ça va? Moi je vais bien Merci. Et toi?

Les réponses

.....  
.....  
.....  
.....

**4. Fill in the blanks with the most appropriate word. (5points)**

- (a) Voici le bureau dans..... j'ai mis les cahiers.
- (b) Janine joue très bien.....netball.
- (c) C'est le vol du matin.....me convient.
- (d) ..... te plaît de jouer au volleyball?
- (e) Heureusement, cela .....arrive que deux fois par semaine.
- (f) De nos jours, beaucoup de nos jeunes sont.....chômage.
- (g) Aujourd'hui il.....mauvais à Shinyalu.
- (h) Hier, le directeur a proposé.....étudiants..... aller dormir un peu plus tôt.
- (i) Quelle heure.....il? Je ne suis pas sûr, je n'avais pas de montre.

# **NATIONAL SCHOOLS PREMOCK**

## **KCSE 2023 SERIES 1**

# **FRENCH**

**PAPER 3**

**TIME: 2 HOURS**

**NAME.....**

**SCHOOL..... SIGN.....**

**INDEX NO..... ADM NO.....**

**501/3/**

**FRENCH**

**SECTION I**

**Reading Aloud**

**CARD A**

Deux ou trois ans après les élections, les populations regardent les chefs politiques avec suspicion. Ils avaient promis des lendemains chantants aux gens pendant les élections mais une fois élus, ils ont oublié les promesses ! Mais de quelles promesses s'agit-il ?

Les promesses comprennent des meilleures routes, des meilleures salaires, la gratuite de l'éducation et de la santé, la transparence et la responsabilité financière, la fin de corruption, la justice sociale, la démocratie ..... et la liste continue. Mais pourquoi les populations sont-elles déçues ?

Le premier problème est le manque d'éducation civique qui aurait permis aux électeurs de comprendre leurs responsabilités. Beaucoup vont aux élections sans savoir comment évaluer les candidats politiques. De plus, beaucoup sont illettrés et très pauvres. Avec des populations pauvres et illettrées, il est possible de les manipuler avec un peu d'argent et bien sur avec des mensonges.



**SECTION I**  
**Reading Aloud**

**CARD B**

Un ou deux mois après être sortis de l'école, les étudiants semblent être sans direction précise. Ceux qui n'ont pas encore décidé quoi faire de leur vie tournent soit vers leurs parents soit leurs amis pour le conseil. Malheureusement, la plupart perdent direction grâce au mauvais conseil qu'ils reçoivent de leurs camarades.

Pour ceux qui sont assez chanceux d'avoir choisi leurs carrières avant de quitter l'école, ils entrent dans les collèges tout en attendant leurs résultats. De nos jours, on doit se munir des connaissances supplémentaires à part ses bons résultats. C'est ainsi qu'ils rejoignent des cours de l'informatique ou entrent à l'auto-école. Quelques-uns ont même la chance d'être embauchés à mi-temps dans certaines entreprises.

Cependant, on a entendu parler de quelques filles qui jettent leur avenir à la poubelle au profit de se marier avec des types qui ne s'intéressent pas du tout à elles ! Quelle catastrophe ! Il faut les conseiller contre une telle action qui est dirigée par des fausses promesses du paradis à la perte éternelle de leur rêve.

**SECTION II**

**Expose**

**Instructions to Candidates.**

1. You will talk on the topic given overleaf.
2. You will have **ten** minutes to prepare for the task.
3. You will have **two** minutes to talk on the topic.

**SECTION II**

**Expose**

**Instructions to Candidates.**

1. You will talk on the topic given overleaf.
2. You will have **ten** minutes to prepare for the task.
3. You will have **two** minutes to talk on the topic.

## SECTION II

### Expose

#### Instructions to Candidates.

1. You will talk on the topic given overleaf.
2. You will have **ten** minutes to prepare for the task.
3. You will have **two** minutes to talk on the topic.

## SECTION II

### Expose

#### *Candidate's Card A*

Les Avantages et les Inconvénients des Industries dans Votre Pays.

## SECTION II

### Expose

#### *Candidate's Card B*

Quelle est la relation entre les maladies et l'économie ?

## SECTION II

### Expose

#### *Candidate's Card C*

Quelle est la relation entre l'environnement et la santé ?

501/3/French

## SECTION II

### Expose

#### Instructions to Candidates.

1. You will talk on the topic given overleaf.
2. You will have **ten** minutes to prepare for the task.
3. You will have **two** minutes to talk on the topic.

## SECTION II

### Expose

#### *Candidate's Card D*

Les inconvénients de la nouvelle technologie.

# NATIONAL PREMOCK EXAM

## SERIES 001

NAME.....

SCHOOL..... INDEX NO.....

SIGN..... DATE.....

442/1

## ART AND DESIGN

### PAPER 1

TIME: 1 HR 30 MIN

#### INSTRUCTIONS TO CANDIDATES

- Write your *Name* ,*admission* and *name of school* in the spaces provided above
- Sign and write *date* of the exam in the spaces provided above
- This paper consists of three sections **A,B** and **C**
- Answer all questions in the both Section **A** and **B**
- Answer any one questions from section **C**
- All answers must be written in the provided space
- Candidates should check the question paper to ascertain that All the pages are printed as indicated and that **NO** question is missing
- Answer all questions in section **A** and **B** and **any one** question from section **C**

#### FOR EXAMINERS USE ONLY

QUESTION	MAXIMUM	CANDIDATE'S SCORE
	20	
	25	
	15	

**SECTION A(25 MKS)**

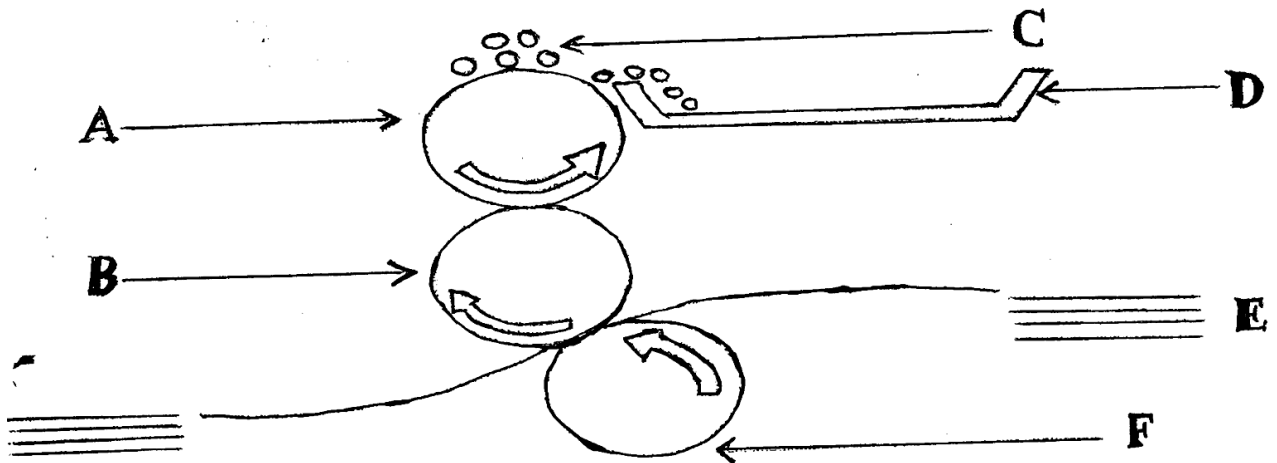
*Answer all questions in this section*

1. State one similarity and two differences between the illustrated Typefaces (3mks)

***K*                      *L***

.....  
.....  
.....  
.....

2. Label the parts A-F in the process of Off-set Lithography. (3mks)



A.....  
B.....  
C.....  
D.....  
E.....  
F.....

On what principle does the above process operate? (1mk)

.....  
.....  
.....

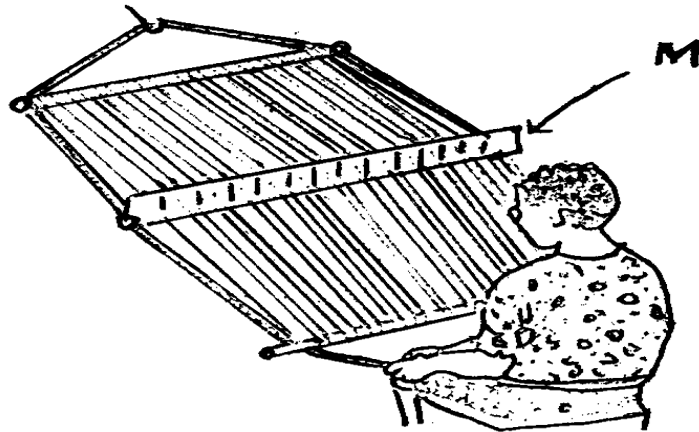
3. Why is grog used in the production of ceramic ware? (2mks)

.....  
.....

4. In the given illustration ,identify M: (1mk)

.....

Which type of loom is this? (1mk)



5. Distinguish between subjective and objective use of color (2mks)

.....  
.....  
.....

6. With the aid of illustration, briefly explain COIL and SLAB hand building techniques in Pottery (4mks)

7. Construct the word PLUM in 3D and Downward Left oblique View

(6mks)

8. Why should we use paste ink for relief printing whereas use liquid inks for intaglio printing

(2mk)

.....  
.....  
.....

**SECTION B 20 MARKS**

1. What is a POSTER?

(2mks)

.....  
.....

2. Define UNITY in Art and Design

(2mks)

.....  
.....

3. Outline any 2 approaches of estimating proportions of the Human figure in drawing

(2mks)

.....  
.....  
.....  
.....

4. What is TYPOGRAPHY?

(2mks)

.....  
.....  
.....

5. State at least 2 Elements of Art that are responsible for creating 3D forms (2mks)

.....  
.....  
.....  
.....

6. Blue + little white = Light Blue  
State one word for this process (1mk)

.....  
.....  
.....

7. Draw the human head in Profile view (4mks)

8. Indicate the stems for the word POINT to be used in Stencil printing (4mks)

.....  
.....  
.....  
.....

9. Mention 2 appropriate surfaces for painting (1mk)

.....  
.....

**SECTION C (15 MARKS)**

*Attempt ANY ONE Question in this Section*

**EITHER  
CERAMICS**

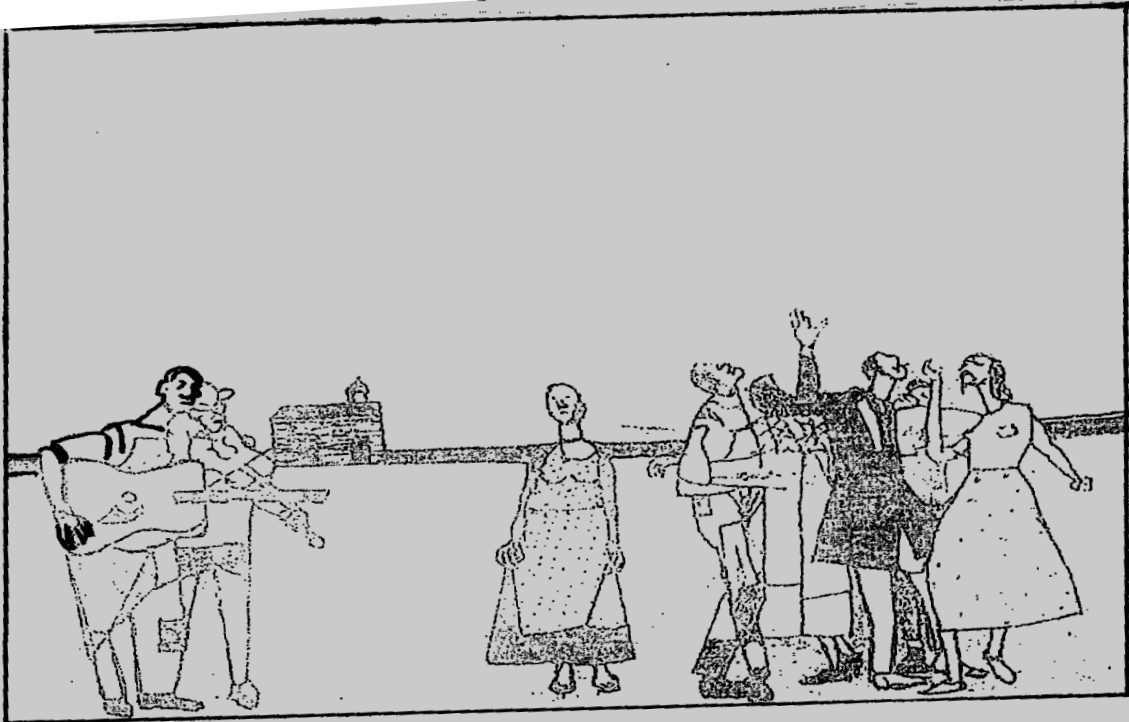
1. a) Define clay as a material for potting (2mks)  
b) Why should freshly dug clay undergo preparation before using it? (2mks)  
c) Outline the 3 properties of good quality clay (3mks)  
d) Complete the table below (8mks)

STAGE	DESCRIPTION	REASON
Collection	(i)	To be used for potting
(ii)	Crush and grind into powder	(iii)
Slaking	(iv)	To form a homogeneous mass
(v)	'Doughing' and mixing into plastic state.	Make it soft, smooth; expel air and impurities.
Wedging	(vi)	(vii)
Storage	(viii)	(ix)



**OR**  
**DRAWING**

2. a) What is meant by the term PERSPECTIVE? (2mks)
- b) Mention the 2 kinds of perspective (2mks)



Study the pictures above and describe it under the following guidelines.

- (i) Type of Art (2mks)
- (ii) Format and space (2mks)
- (iii) Shape and proportion (2mks)
- (iv) Depth and distance (2mks)
- (v) Theme (2mks)

**OR**  
**WEAVING**

3. a) Define the term weaving (2mks)
- b) State 4 weaving techniques (4mks)
- c) State and explain 3 functions of woven articles in contemporary Kenya (3mks)
- d) Describe the process of weaving with serrated card loom. Illustrate your work (6mks)

# NATIONAL PREMOCK EXAM

## SERIES 001

NAME.....

SCHOOL..... INDEX NO.....

SIGN..... DATE.....

442/2

## ART AND DESIGN

PAPER 2

TIME: 3 HOURS

### INSTRUCTIONS TO CANDIDATES

- This paper contains **TWO** alternatives **A** and **B**. Both the alternatives have **TWO** options. Choose any **ONE** option from any one of the alternative.
- This paper will be given to you **ONE HOUR** before the start of the exam to enable you to make your choice.
- Clearly write your name ,index number, the alternative and the number of option chosen in that order on the right-hand corner of an unpainted 4cm margin running across the bottom of the paper.
- At end of the exam, pass your work to the supervisor **WITHOUT ROLLING** or **FOLDING**.

## **ALTERNATIVE A: DRAWING OR PAINTING**

### **Either**

1. Create an imaginative or memory pictorial composition using soft (B)range pencils ,or coloured pencils, or ink and pen based on the following scene;

A TAX COLLECTOR IN A BUSY OPEN MARKET.

### **Or**

2. Compose a picture I color from memory based on the theme

A CAPTIVATING NARRATIVE BESIDES THE BONFIRE AT NIGHT.

ALTERNATIVE B: GRAPHIC DESIGN

### **Either**

1. Using calligraphy re-write the following text accompanied with an appropriate illustration to support the message:

A HOUSEHOLD TIP!

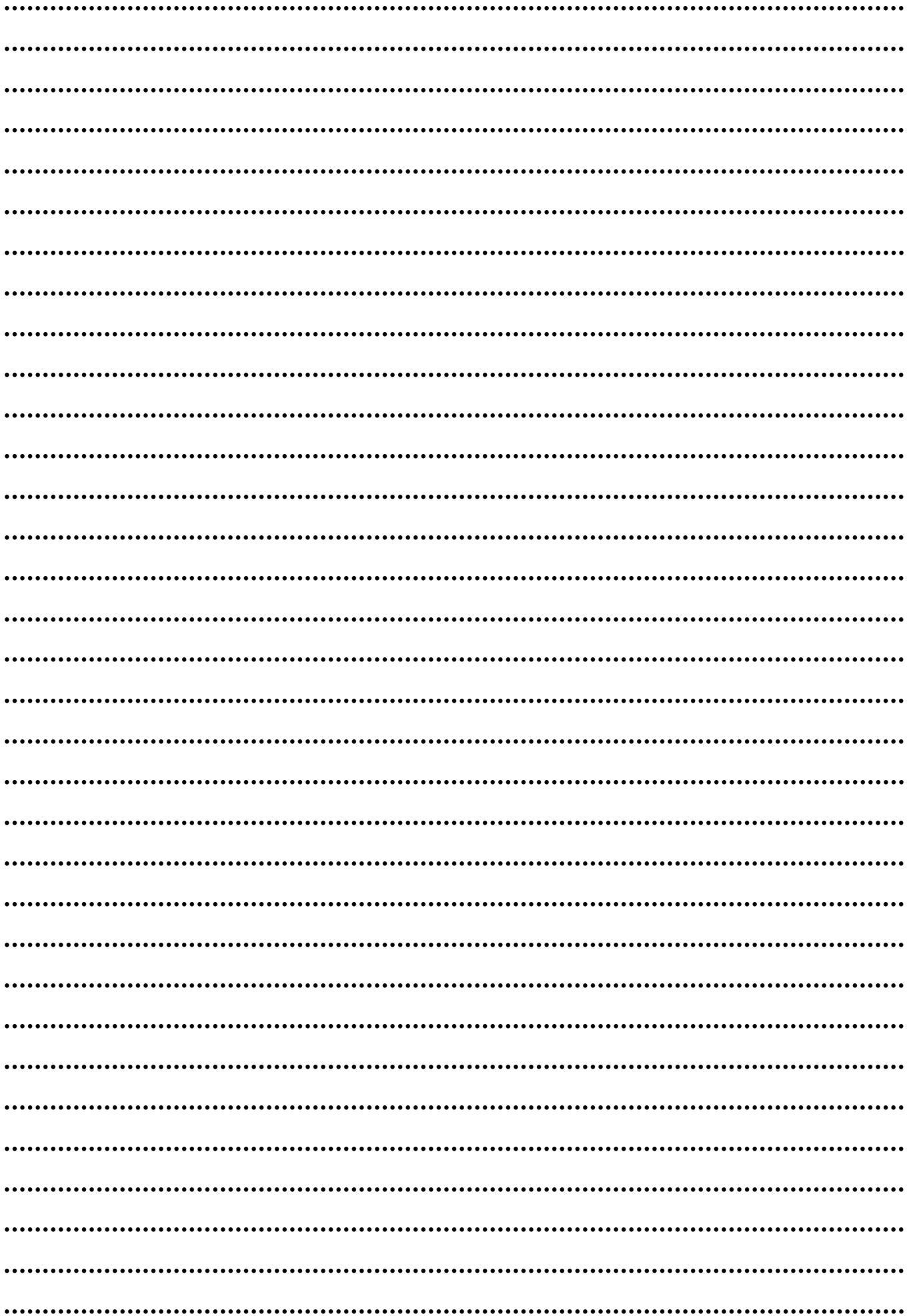
If the tips of your knitting needles get worn out, dip them in a nail polish and then dry. Needles will be as good as new!

The illustration should be in 2 colors only

Work in area of (30 x 21) cm

### **Or**

2. Design a motif derived from organic source. The motif will be used for a repeated pattern of Fabric Decoration meant for an aquatic firm dealing with marine animals and plants;
  - (a) Produce a separate motif in an area of (10 x 10)cm
  - (b) Repeat the motif in 16 grid of (5 x 5)cm



**THE END**

# **FOR THE FOLLOWING;**

- ✓ **ONLINE TUITION**
- ✓ **REVISION NOTES**
- ✓ **SCHEMES OF WORK**
- ✓ **SETBOOKS VIDEOS**
- ✓ **TERMLY EXAMS**
- ✓ **QUICK REVISION KITS**
- ✓ **KCSE TOPICALS**
- ✓ **KCSE PREMOCKS**
- ✓ **TOP SCHOOLS PREMOCKS**
- ✓ **JOINT PREMOCKS**
- ✓ **KCSE MOCKS**
- ✓ **TOP SCHOOLS MOCKS**
- ✓ **JOINT MOCKS**
- ✓ **KCSE POSTMOCKS**
- ✓ **TOP SCHOOLS PREDICTIONS**
- ✓ **KCSE PREDICTIONS**
- ✓ **KCSE REVEALED SETS**

**CALL/TEXT/WHATSAPP**

***0746 222 000***

***0742 999 000***

***[mwalimuconsultancy@gmail.com](mailto:mwalimuconsultancy@gmail.com)***

***This is a Copyright Property of Mwalimu  
Consultancy***

*Powered By Mr Isaboke*