KCSE JOINT MOCK EXAM

SERIES 1-2023

ALL SUBJECTS

Compilation of First Trial Joint mock examinations for select National Schools in the Republic of Kenya.

SUBJECTS COMPILED;

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

SERIES 1

For Marking Schemes

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

MWALIMU CONSULTANCY

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

BIOLOGY

231/1
PAPER 1 (THEORY)
TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

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 ALL questions in the spaces provided.*

EXAMINER'S USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1 - 26	80	

SECTION A

Attempt All the Questions

1. Some form one students wanted to collect the following animals for study in the laboratory. State the suitable apparatus they should use.

i) Flying insects **(1 mark)**

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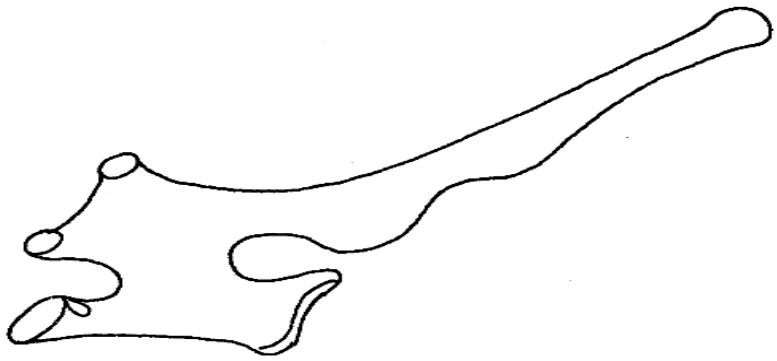
ii) Crawling stinging insects **(1 mark)**

……

iii) Small animals from tree barks **(1 mark)**

……

2. The diagram below represents a mammalian vertebra.



(a) Identify the vertebra represented above. **(1mk)**

……

(b) Give a reason for your answer. **(1mk)**

……

……

3. (a) Explain the role of oxygen in Active transport **(1mk)**

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……

(b) Name two processes that depend on Active transport in animals **(2mks)**

……

……

4. Explain how sunken stomata lower the rate of transpiration **(2mks)**

……

……

……

5. State how xylem vessel is adapted to its function **(3mks)**

……

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……

……

6). a) Define the term immunity. **(1mk)**

……

……

b) Distinguish between natural immunity and acquired immunity. **(1mk)**

……

……

……

c) Identify one immunizable disease in Kenya. **(1mk)**

……

7. State two adaptations of the alveolus to its functions. **(2mks)**

……

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……

……

(a) Why may an asthmatic patient produce a wheezing sound during breathing? **(1mk)**

……

……

(b) What is the significance of the cartilage found in the human trachea being incomplete (c- shaped rings) **(1mk)**

……

……

8. Define the following terms;

(i) Inter specific competition. **(1mk)**

……

……

(ii) Carrying capacity **(1mk)**

……

……

9. Suggest two methods that can be used to determine that type of food eaten by animals**.(2mks)**

……

……

10. (a) State one significance of genetics counseling **(1mk)**

……

……

(b) Part of a strand of DNA molecules was found to have the following sequence

A-T-C-G-G-G-A-T-C-T.

What is the sequence?

(i) Of the complementary strand? **(1mk)**

……

(ii) On a m- RNA strand copied **(1mk)**

……

11). The paddles of whales and the fins of fish adapt these organisms to aquatic habitats.

a) Name the evolutionary process that may have given rise to these structures. **(1mk)**

……

b) What is the name given to such structures? **(1mk)**

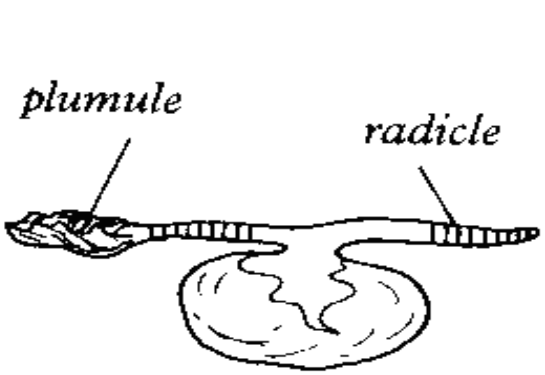
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c) Give two examples of vestigial organs in man. **(2mk)**

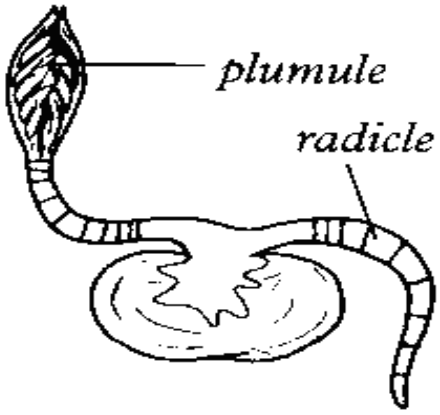
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12). An experiment was set to investigate a certain aspect of response. A seedling was put on a horizontal position as shown in figure M below. After 24 hours, the set up was as shown in figure N.



M



N

a) Name the response exhibited. **(1mk)**

……

b) Explain the curvature of the shoot upwards. **(3mk)**

……

……

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……

13. The following is an equation representing a type of respiration

$$C_6H_{12}O_6 \longrightarrow 2C_2H_5OH + 2CO_2 + \text{Energy}$$

a) Identify the type of respiration. **(1mk)**

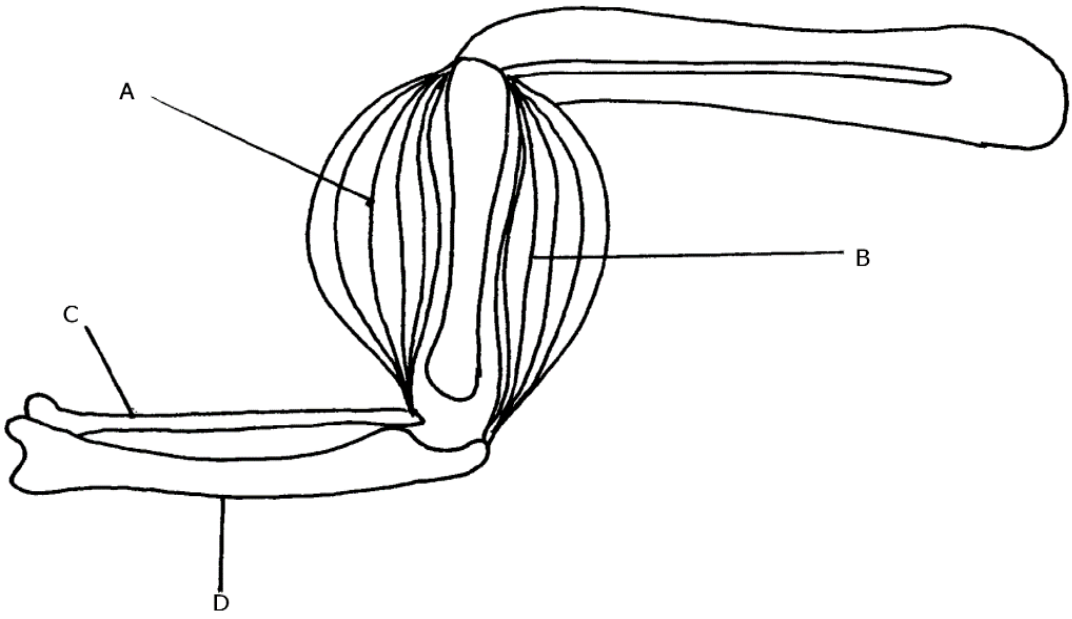
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b) Suggest one industrial application of the process shown in the equation above **(1mk)**

……

……

14.



a) Name the bones labeled C and D. **(2 mark)**

C-

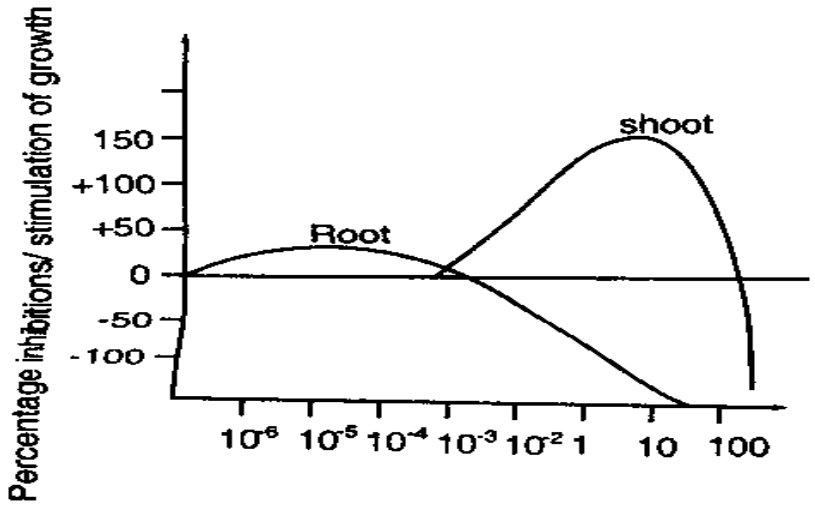
D-

b) What happens to structure A and B as the arm is straightened **(1 mark)**

……

……

15. Below is a graphical representation of the effects of different concentration of auxins on shoot and root growth. Study it carefully and then answer the questions that follow.



Auxin concentration (ppm)

(a) Identify **any two** conclusions that can be drawn from the graph**.** **(2mks)**

……

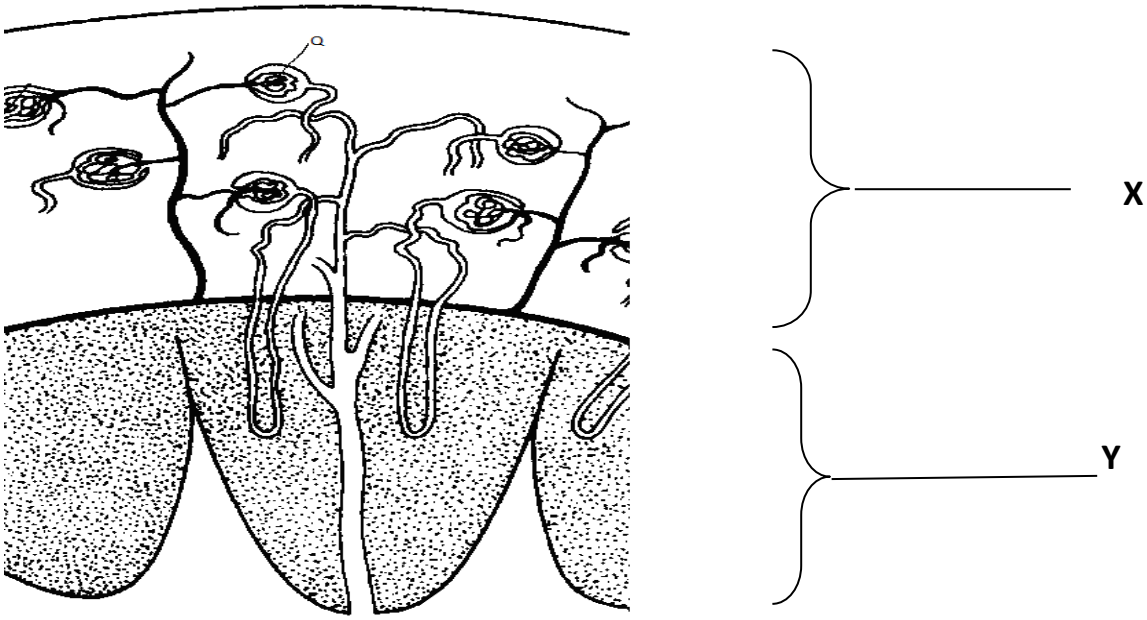
……

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(b) Name the growth hormone responsible for ripening of fruits. **(1mk)**

……

16. The illustration below shows a transverse section through a mammalian kidney.



(a) Name the structures labelled **X** and **Y**.

X **(1mk)**

Y **(1mk)**

(b) State the process in **Q** that leads to the formation of glomerular filtrate**.** **(1mk)**

……

17. State **three** differences in composition between umbilical artery and umbilical vein**. (3 marks)**

Umbilical vein	Umbilical artery

18. (a) What is meant by the term taxonomy? **(1mk)**

……

……

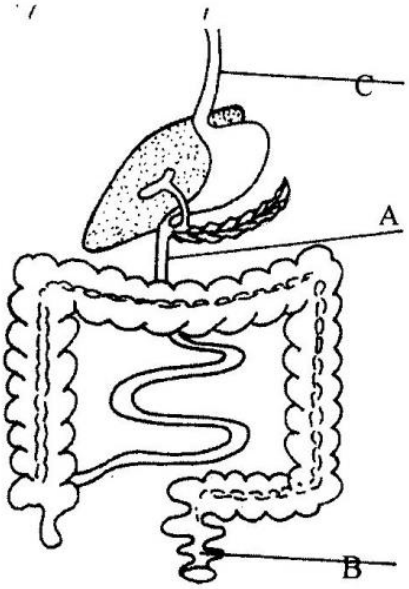
(b) When are two organisms considered to belong to the same species. **(2mks)**

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……

……

19). The diagram below shows part of alimentary canal of a mammal



(i)Name the parts labeled A and C **(2mks)**

A –

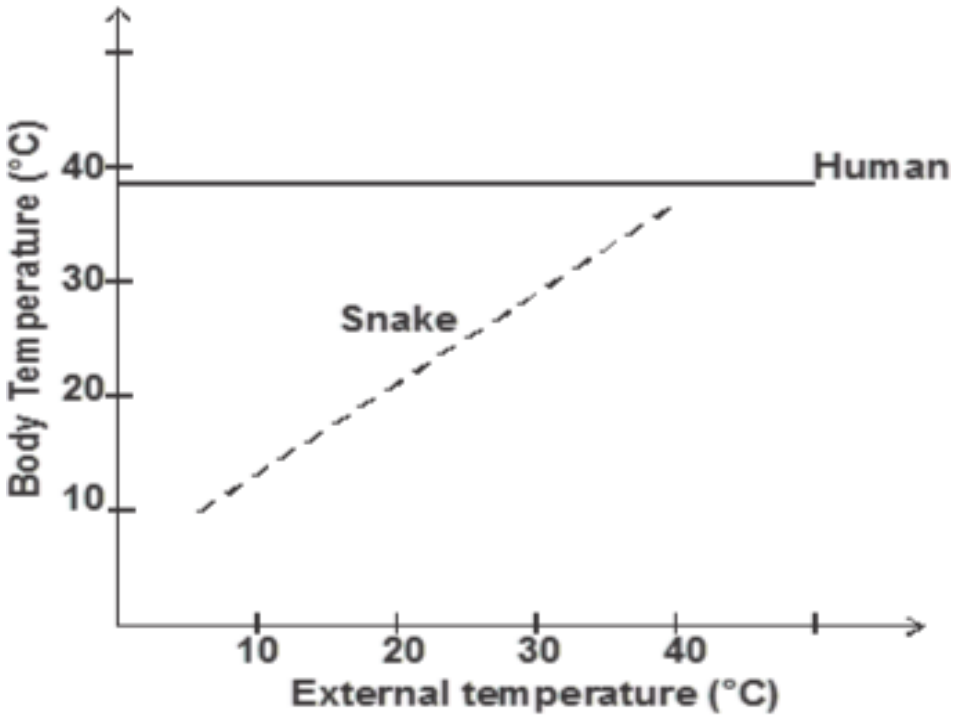
C –

(ii) State the function of the part labeled B **(1mk)**

……

……

20). The graph below shows the relationship between body temperatures and external temperatures in a human being and a snake. Study it and answer questions that follow.



a) What happens to the temperature of each organism as the external temperature increases.**(2 marks)**

Human

……

……

Snake

……

……

b) Humans are described as homoithermic. State the advantage of this condition. **(2marks)**

……

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……

21. a) Name two products of light stage during photosynthesis. **(2 marks)**

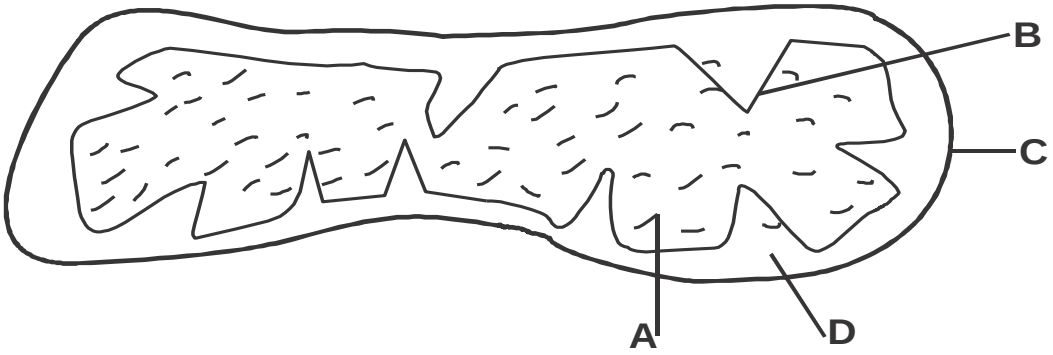
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……

b) State three differences between light stage and dark stage of photosynthesis. **(3 marks)**

Light	Dark

22. The diagram below represents a cell organelle.



a) Identify the organelle. **(1 mark)**

……

b) Name the part labelled B **(1 mark)**

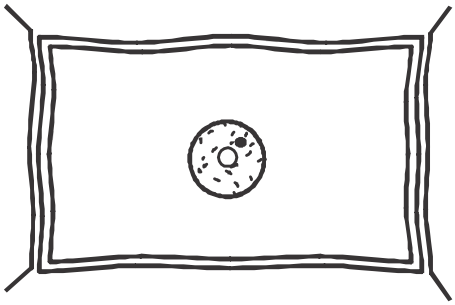
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c) State the functions of the part labelled A **(1 mark)**

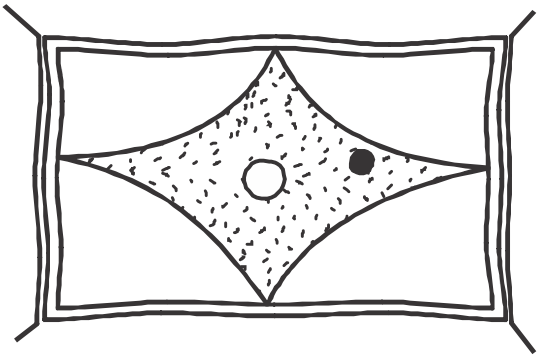
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23 . The diagram below represents a plant cell that was subjected to a certain treatment.



At the start



At the end of the experiment

a) Account for the shape of the cell at the end of the experiment. **(2 marks)**

……

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b) Draw a diagram to illustrate how an animal cell would appear if subjected to the same treatment. **(1 marks)**

24.a) Give a reason why each of the following steps are followed when preparing cross sections of a leaf for examination under a microscope.

i) Cutting thin sections. **(1 mark)**

……

……

ii) Placing the sections in water. **(1 mark)**

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……

25.a) Name two tissues in plants that provide mechanical support. **(2 marks)**

……

……

b. Name the types of joints formed by each of the following pairs of bones:

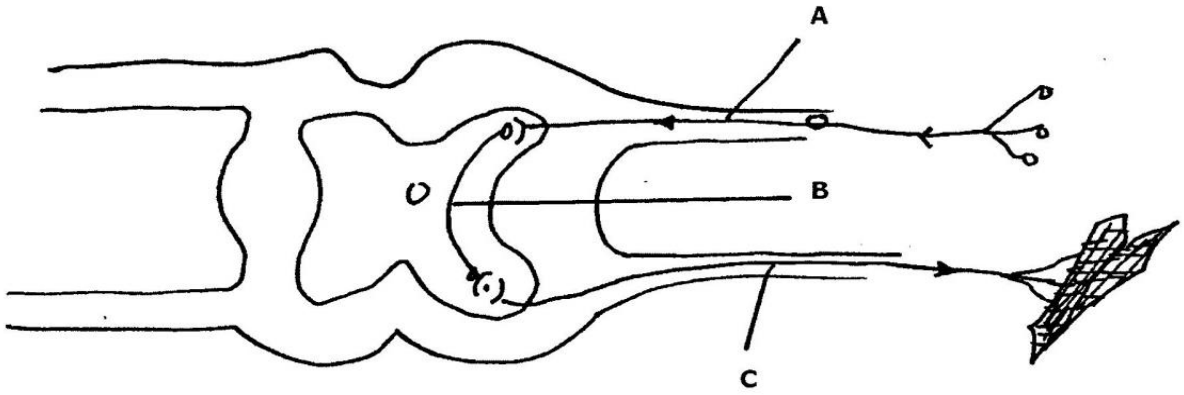
i) Axis and atlas. **(1 mark)**

……

ii) Humerus with clavicle and scapula. **(1mk)**

……

26.) The diagram below represents a simple reflex ark



(a) Name the parts labeled A, B and C **(3mks)**

A –

B—

C—

(b) What is the role of part A **(1mk)**

……

……

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

BIOLOGY

231/2
PAPER 2 (THEORY)
TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES.

1. *Write your name and admission number in the spaces provided*
2. *Sign and write the date of examination in the spaces provided above*
3. *this paper consist of TWO section A and B*
4. *Answer ALL the questions in section A in the spaces provided*
5. *In section B answer question 6 (compulsory and either question 7 or 8 in the spaces provided after question 8.*

FOR EXAMINERS USE ONLY:

SECTION	QUESTION	MAX.SCORE	CANDIDATES SCORE
A	1	8	
	2	8	
	3	8	
	4	8	
	5	8	
B	6	20	
	7	20	
	8	20	
TOTAL		80	

1. In human beings, baldness is controlled by a dominant gene **N** located on the **Y** chromosome

a) Work out a cross between a bald headed man and his wife **(4mks)**

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b) i) What is the probability of the couple getting girls who would develop baldness **(1mrk)**

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ii) Give a reason for your answer in b i) above. **(1mk)**

……

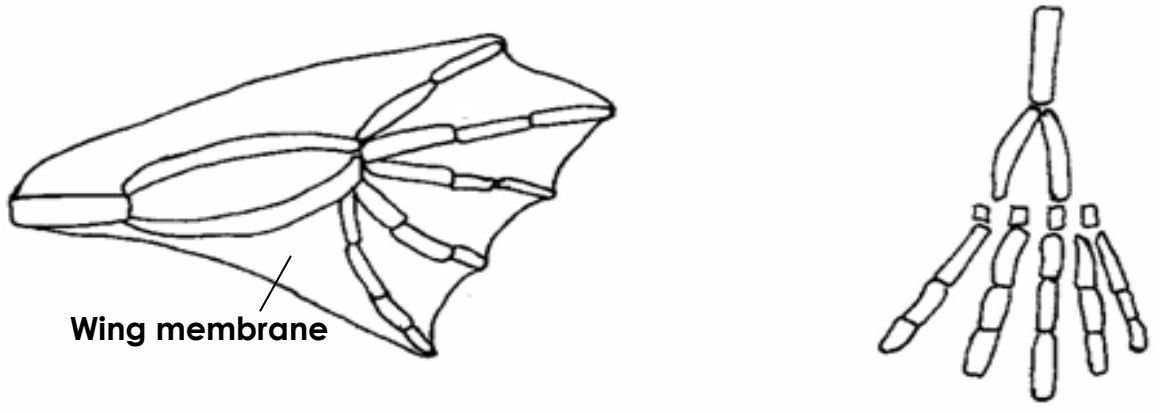
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c.) Apart from the above trait name **two** other sex linked traits in human beings associated with Y chromosome. **(2mks)**

……

……

2. The diagram **below** shows structures of the bat wing and human arm.



(a) These structures are thought to have same ancestral origin. State **one** structural similarity and **one** adaptational difference between the two.

(i) Structural similarity. **(1mk)**

……

……

(ii) Adaptation difference. **(2mks)**

……

……

……

……

(b) Give **two** other examples of structures in nature that show the type of evolution as in (a) above. **(2mks)**

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(c) Distinguish between the terms 'chemical evolution' and 'organic evolution'. **(2mks)**

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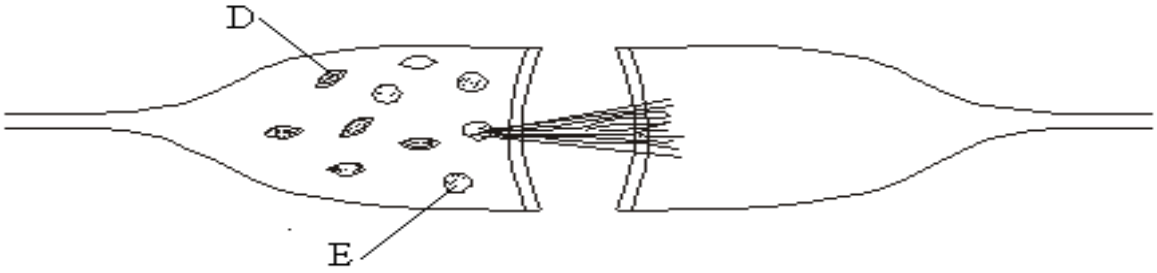
……

(d) What is the study of fossils called? **(1mk)**

……

……

3. The diagram below shows a synapse.



a) Indicate the direction of the impulse on the diagram. **(1 mark)**

b) Label **D** and **E** **(2 marks)**

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……

c) Compare a simple reflex action with a conditioned reflex action. **(3 marks)**

Simple reflex	Conditioned reflex

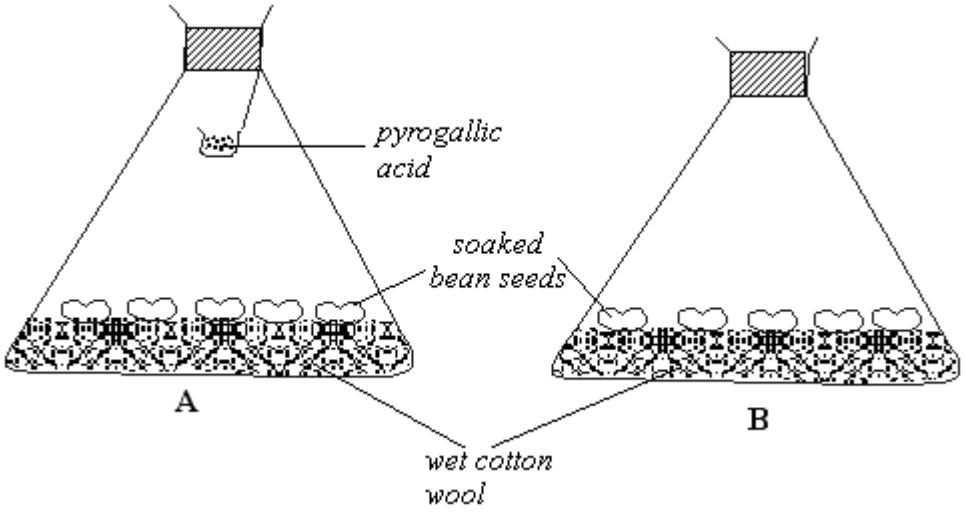
d) State two functions of hormones in animals. **(2 marks)**

……

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……

4. Science club members designed an experiment as shown below. Examine it.



The set up was kept at room temperature for one week.

(a) What was the aim of the experiment? **(1mark)**

……

(b) What observation was made after one week.in A and B **(2marks)**

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(c) **(i)** Explain the role of water in seed germination. **(3marks)**

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……

d.) What was the role of pyrogallic acid in the above set up? **(1mk)**

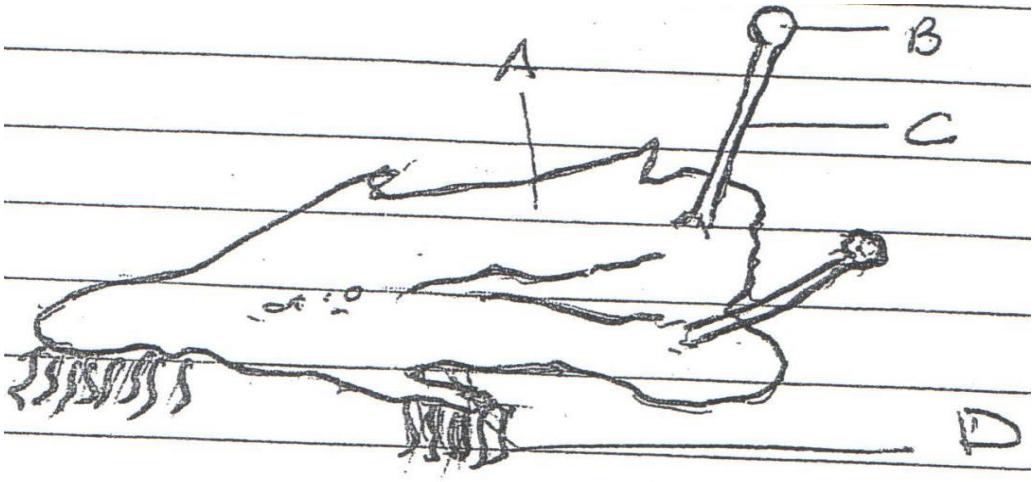
……

……

e.) Name one internal factor necessary for seed germination **(1mk)**

……

5. The diagram below represents a certain organism observed by a student in an ecological tour.



a) Name the parts labeled **A** and **C** **(2mks)**

……

……

b) Name the division to which the organism belongs **(1mk)**

……

c) Give two observable reasons for your answer in **(b)** above **(2mks)**

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d) Define the following terms **(1mk)**

i) Taxa

……

……

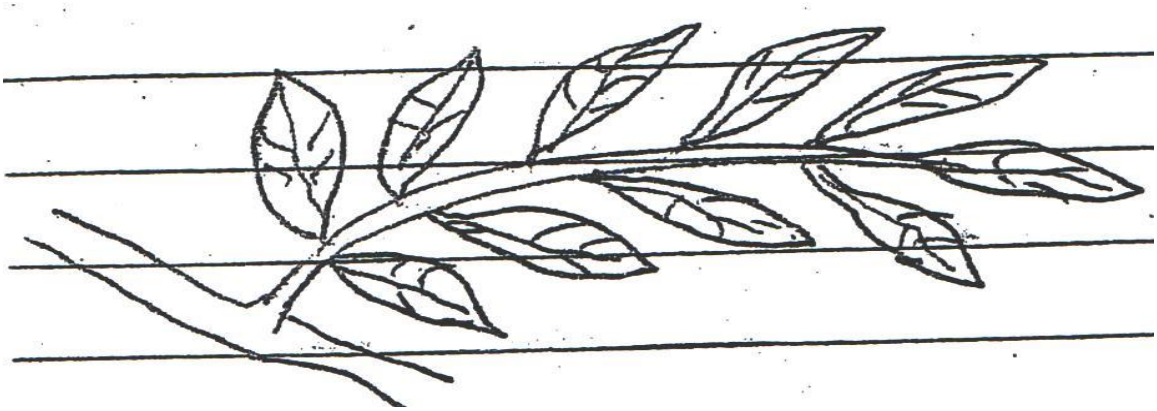
ii) Binomial nomenclature **(1mk)**

……

……

e) Give the name of the following leaf form observed in plants **(1mk)**

……

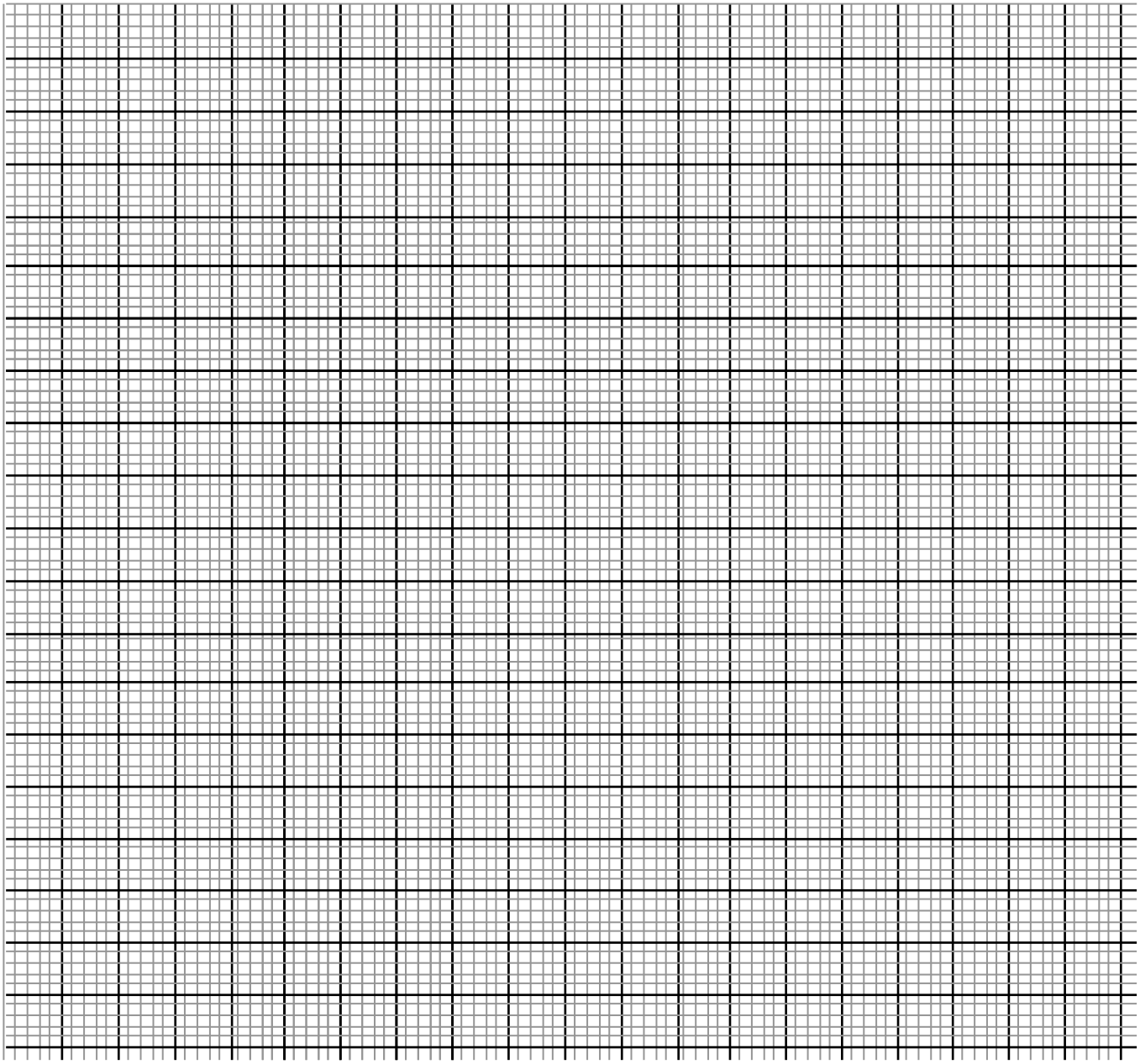


SECTION B.

6. An experiment was carried out to investigate the effect of temperature on the rate of reaction catalyzed by an enzyme. The results are shown in the table below

Temperature (^{0}C)	**Rate of reaction in mg of products per unit time**
5	0.2
10	0.5
15	0.8
20	1.1
25	1.5
30	2.1
35	3.0
40	3.7
45	3.4
50	2.8
55	2.1
60	1.1

a). On the grid provided draw a graph of rate of reaction against temperature **(6 mks)**



b). When was the rate of reaction 2.6 mg of product per unit time**?** **(2 mks)**

……

……

……

(c) Account for the shape of the graph between

(i) 5^0 C and 40^0 C **(2 mks)**

……

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……

……

(ii) 45^0 C and 60^0C **(3 mks)**

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(d) Other than temperature name two ways in which the rate of reaction between 5^0C and 40^0C could be increased **(2 mks)**

……

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……

(e) (i) Name one digestive enzymes in the human body which works best in acidic condition **(1 mk)**

……

(ii) How is the acidic condition for the enzyme named in (e) (i) above attained**?** **(2 mks)**

……

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(f) The acidic conditions in (e) (ii) above is later neutralized

(i) Where does the neutralization take place? **(1mk)**

……

ii) Name the substance responsible for neutralization **(1 mk)**

……

7. Explain the role of human skin in:

a) Thermo- regulation. **(14mks)**

b) Protection **(6mks)**

8. (a) State the structural adaptation of the insects tracheal system **(10 marks)**

(b) Describe how various hormones influence the menstrual cycle. **(10 marks)**

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

BIOLOGY

231/3
PAPER 3 (PRACTICAL)
TIME: 1¾ HOURS

SCHOOL…… SIGN……

Kenya Certificate of Secondary Education.

CONFIDENTIAL

a) *-8cm long visking tubing*

b) *-50ml of distilled water (labelled solution X) in a 100ml beaker.*

c) *-80ml of 10% Glucose solution (labelled solution Y) in a 100ml beaker.*

d) *-2 pieces of thread, 30cm each.*

e) *-Benedict's solution.*

f) *-Means of heating*

g) *-Two test tubes.*

h) *-Two droppers.*

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

BIOLOGY

231/3

PAPER 3 (PRACTICAL)

TIME: 1¾ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

231/3

BIOLOGY

PAPER 3

PRACTICAL

TIME: $2\frac{1}{4}$ HOURS

Kenya Certificate of Secondary Education

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. *Answer ALL questions in the spaces provided.*

FOR MARKING SCHEMES CONTACT 0746-222-000 / 0742-999-000

QUESTIONS

1. a.) Carryout food tests for solution **Y** and **X** using the reagents provided. **(6mks)**

Solution	Food substance	Procedure	Observation	Conclusion
Solution X				
Solution Y				

b.) Tie one side of the visking tubing with one of the threads provided. Pour 5ml of solution X in the visking tubing and tie the other end with the remaining piece of thread. Immerse the visking tubing in solution Y in the beaker and leave the set up for 20 minutes. After 20 minutes perform food test using the solution in the visking tubing and solution in the beaker and record your result in the table below. **(3mks)**

Solution	**Food substance**	**procedure**	**observation**	**conclusion**
Solution in visking tubing				
Solution in the beaker				

c.) Which process was being investigated**.** **(1mk)**

……

d.) Account for the results obtained **(3mks)**

……

……

……

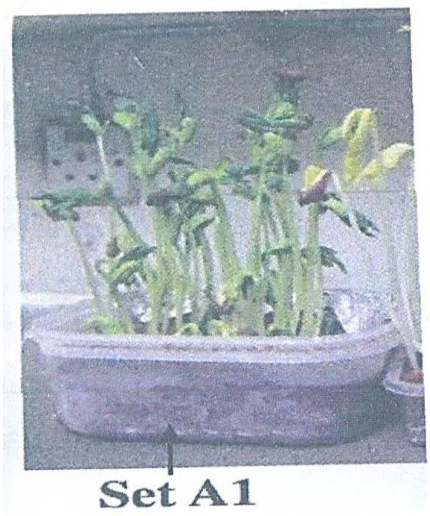
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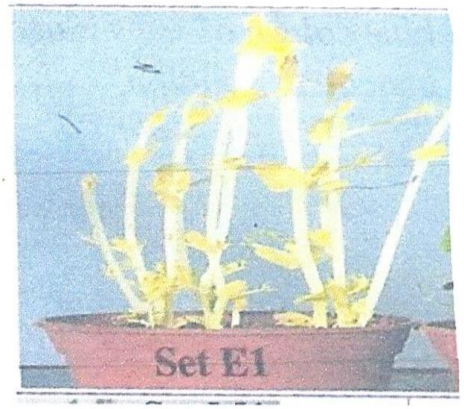
e. State two importances of the process above in living organisms. **(2mk)**

……

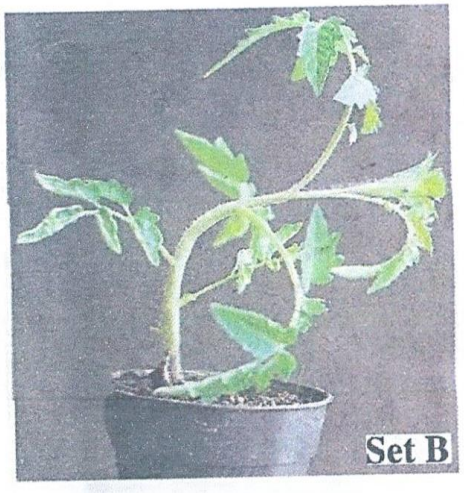
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2. Study the diagrams set $\mathbf{A_1}$, set $\mathbf{E_1}$, set $\mathbf{M_1}$ and set **B** carefully and answer the questions below









(a) State the conditions under which each set up was grown. **(3mks)**

Set A_1

Set E_1

Set B

(b) (i) Name the phenomenon exhibited by seedlings in set E_1 **(1mk)**

……

……

(ii) Give a reason why plants exhibit the phenomenon named in (b) (i) above **(1mk)**

……

……

(c) (i) Name the response exhibited by the seedlings in set B. **(1mk)**

……

(ii) Explain how the response named in (c) (i) above occurred **(2mks)**

……

……

……

(d) (i) State the type of germination exhibited by seedlings in set A1 and set M1. **(2mks)**

Set A1

……

Set M_1

……

(ii) Give a reason for your answer in (d) (i) above **(2mks)**

Set A_1

……

……

Set M_1

……

……

(iii) State the mode of dispersal in set A above when mature. **(1 mk)**

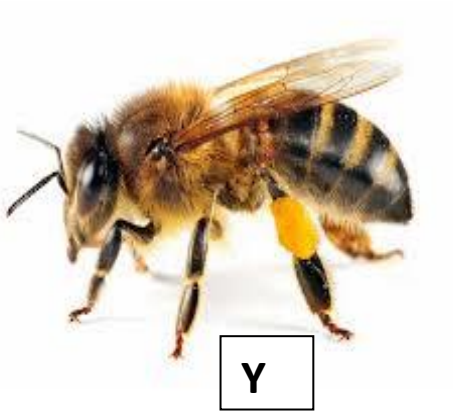
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(iv) Name the type of fruit formed by M1 on maturity. **(1 mk)**

……

3. Study the photographs below and hence answer the questions that follow







(i) To which phylum does organisms **x,y** and **z** belong to. **(1 mark)**

……

(ii) Name the classes to which X, Y and Z belongs to. **(3 marks)**

……

……

……

(iii) Give two important economic roles of specimen Y. **(2 marks)**

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(iv) Give one harmful effect of specimen X to animals. (**1 mark)**

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……

(v) With reasons identify two modes of locomotion of specimen Y . **(4 marks)**

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KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

CHEMISTRY

233/1

PAPER 1 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

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) *Answer **ALL** the questions in the spaces provided in the question paper.*

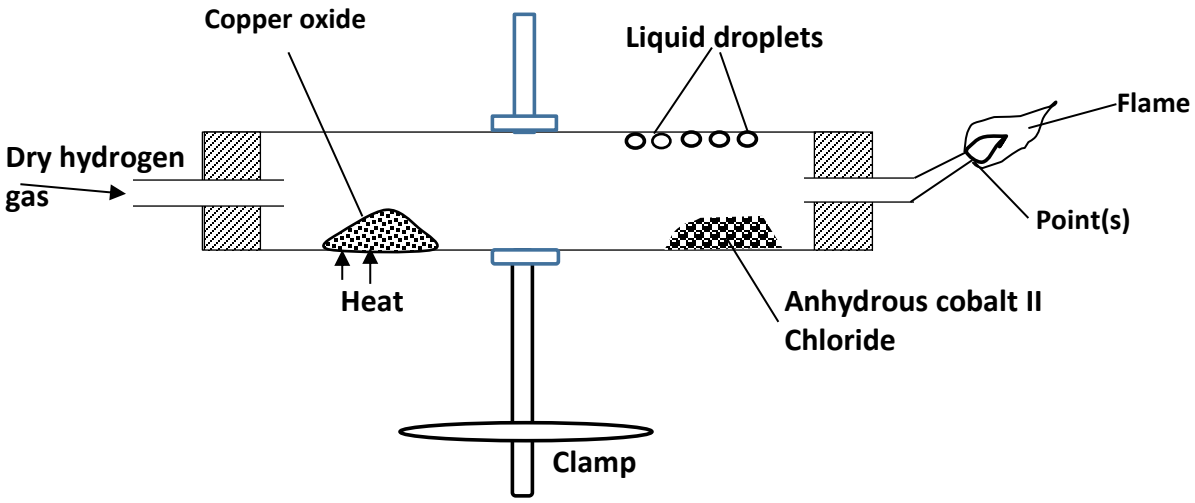
(d) *KNEC Mathematical tables and electronic calculators may be used for calculations.*

FOR EXAMINERS' USE ONLY.

Questions	Max-score	Candidates score
1-31	80	

*Answer **ALL** the questions in the spaces provided*

1. Study the set-up shown below and use it to answer the questions that follow.



(a) State the observations made at the end of the experiment on:

(i) The cobalt II chloride papers. **(1 mark)**

……

……

(ii) Copper II oxide powder. **(1 mark)**

……

……

(b) (i) Why was excess hydrogen ignited? **(1 mark)**

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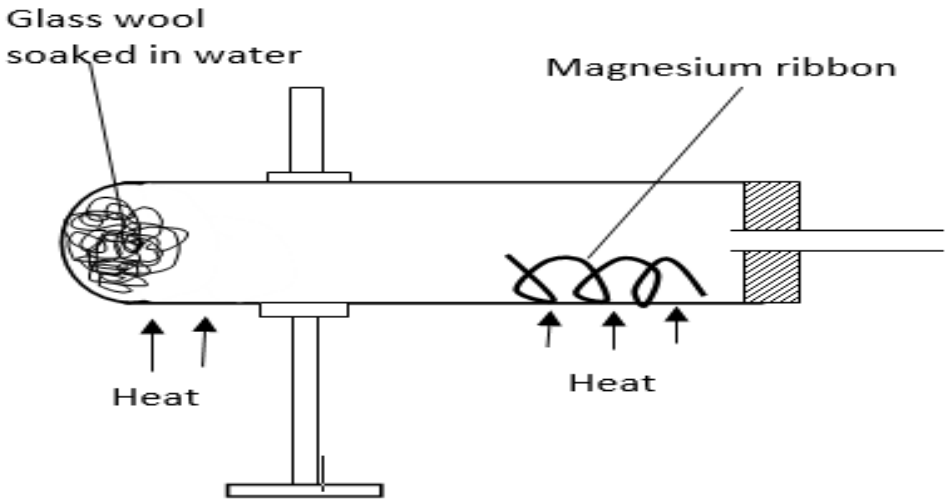
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(ii) Write a fully balanced equation for the reaction occurring at the flame at point(s). **(1 mark)**

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2. A student used the reaction between steam and heated magnesium metal to collect a dry sample of hydrogen gas. Complete the diagram to collect the gas. **(3 marks)**

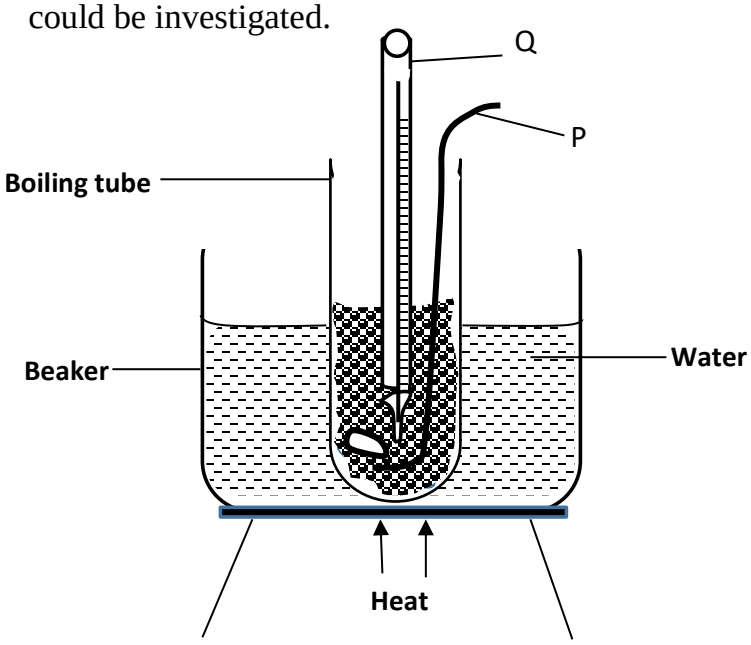


Write the equation for the reaction producing the hydrogen gas in the above reaction. **(1 mk)**

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3. The following diagram represents a set-up showing how changes of state from solid to liquid could be investigated.



(a) Identify the apparatus P and Q and state their uses. **(2 marks)**

P -

Q -

4. (a) Define the term "Gay Lussac's law". **(1 mark)**

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(b) When $100cm^3$ of gaseous hydrocarbon ($C_x H_y$) burn in $400cm^3$ of oxygen, $100cm^3$ of oxygen is unused, $200cm^3$ of steam are formed. Deduce the equation for the reaction and the formula of the hydrocarbon. **(2 marks)**

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5. If it takes 30 seconds for $100cm^3$ of carbon (IV) oxide to diffuse across a porous plate. How long will it take $150cm^3$ of nitrogen (IV) oxide to diffuse across the same plate under similar conditions? (C = 12.0, N = 14.0, O = 16.0) **(2 marks)**

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6. Define Charles' law. **(1 mark)**

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7. The table below shows the solubility of a salt at various temperatures.

Temperature ^oC	**Solubility (g/100g water)**
0	36
40	30
80	25
100	22
120	20

(a) Define the term fractional crystallization. **(1 mark)**

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(b) A saturated solution of the salt at 40^0C was heated to 100^0C. State and explain the observation made. **(2 marks)**

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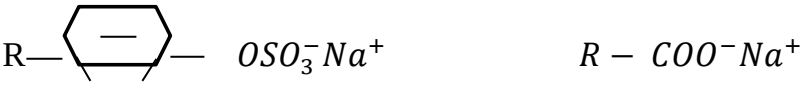
(c) Calculate the mass of salt formed when a saturated solution of the salt at 0^0C is placed in a water bath maintained at 100^0C. **(1 mark)**

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8. The structures below are a representation of cleansing agents M and N.



M N

(i) Identify the agents. **(1 mark)**

M -

N -

(ii) Write an equation for the compound formed when agent N is used with water containing calcium nitrate salt. **(1 mark)**

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(iii) A water engineer analyzed water from a borehole and found out that it contained magnesium chloride impurities. State any two methods used to make the water suitable for washing using agent N. **(1 mark)**

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9. Calculate the percentage abundance of two other isotopes of element A with three isotopes, (30, 32, 35). Given that the R.A.M is 30.5 and percentage abundance of 35 is 5%. **(2 marks)**

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10. An element Z has ionic configuration of $Z^+ - 2.8$. The element is burned in excess oxygen and the product is then added to water. Write two possible equation for the reactions which took place. **(2 marks)**

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11. Phosphorus (III) oxide has a lower melting point than calcium chloride. Explain. **(2 marks)**

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12. Describe how you would prepare silver carbonate starting with silver. **(3 marks)**

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13. Use the table below to determine the enthalpy change for the reaction between hydrogen and chlorine. **(3 marks)**

Bond	Bond Energy kJ/mole
H – H	435
H – Cl	431
Cl – Cl	244

14. Explain why hydrogen sulphide cannot be used as a fuel, though it can burn to give out useful heat energy. **(1 mark)**

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15. (a) Explain why cryolite is added to aluminium oxide before electrolysis. **(1 mark)**

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(b) During electrolysis 40,000 amperes was passed through a Hall cell for 10 hrs. Calculate the mass of aluminium deposited at the cathode in kg.
(IF = 96500C, Al = 27) **(3 marks)**

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16. (a) Define the term half-life. **(1 mark)**

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(b) A certain nuclide has a half-life of 2.5 hours. What percentage of a given mass of the nuclide will be left after 7.5 hrs? **(2 marks)**

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17. Explain how increase in temperature affects the rate of a given reaction. **(2 marks)**

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18. Write down the preliminary steps undertaken to concentrate an ore during extraction of metals. **(2 marks)**

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19. Write down the formula of the chief ore of Aluminium. **(1 mark)**

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20. Dilute sulphuric (VI) acid was added to a compound P of magnesium. The solid reacted with the acid to form a colourless solution Q and a colourless gas R which formed a white precipitate when bubbled through lime water. Identify: **(1 ½ marks)**

(a) compound P -

(b) solution Q -

(c) colourless gas R -

21. During an experiment on the reduction of an oxide of copper, the following data was obtained.

Mass of empty boat	=	25.0g
Mass of empty boat + oxide of copper	=	29.0g
Mass of boat + copper (after reaction)	=	28.2g

Determine the empirical formula. **(3 marks)**

(Cu = 64, O = 16)

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22. Calculate the number of atoms in 26.4g of calcium carbonate.

(Ca = 40, C = 12, O = 16, L = 6.02×10^{23}) **(2 marks)**

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23. Lead (II) nitrate was heated completely.

(a) Write an equation for heating lead (II) nitrate. **(1 mark)**

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(b) Calculate the mass of the oxide formed given that 0.2 moles of the nitrate was heated. (Pb = 207, O = 16) **(2 marks)**

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24. Draw and name two branched isomers of the compound whose chemical formula is C_5H_{12}. **(2 marks)**

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25. (a) Complete the following table based on organic compounds. **(1 mark)**

	Compound	Reagents needed for preparation
(i)	Ethyne	
(ii)	Ethane	

(b) Write chemical equations to represent the reaction in (a) above. **(2 marks)**

(i)

(ii)

(c) An organic substance (Q) reacted with ethanoic acid to form pleasant smelling compound $CH_3CHOOCH_2CH_2CH_3$.

(i) What conditions will be required to form the product? **(1 mark)**

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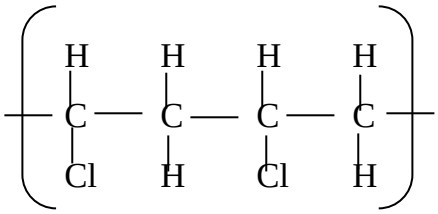
(ii) If another compound with a chemical formulas C_3H_6 has to be formed from compound Q, what would be the conditions required in this process. **(1 mark)**

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26. (a) Give the formula of the Monomer used during the formation of the following polymer.

(1 mark)



(b) State any use of the polymer in (a) above. **(1 mark)**

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(c) Other than using universal indicator explain how one can differentiate between the following chemicals.

Propanol and propanoic acid. **(1 mark)**

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27. The melting points of oxygen and sulphur are -216^0C and 113^0C respectively yet the two elements belong to group VI in the periodic table. Explain. **(2 marks)**

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28. Which type of Sulphur is formed under the following conditions?

	Conditions	**Type of Sulphur**
(i)	Above 96^0	**(½ mark)**
(ii)	Pouring boiling Sulphur into cold water	**(½ mark)**
(iii)	Rapidly cooling Sulphur vapour	**(½ mark)**
(iv)	Mixing sodium thiosulphate with dilute hydrochloric acid	**(½ mark)**

29. When dry chlorine is passed over heated iron in a combustion tube, a brown solid forms on the cooler parts of the combustion tube.

(i) Name the brown solid. **(1 mark)**

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(ii) Why does the brown solid form on the cooler parts of the combustion? **(1 mark)**

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(iii) What will be the pH of the solution formed when the brown solid is dissolved in water?

(1 mark)

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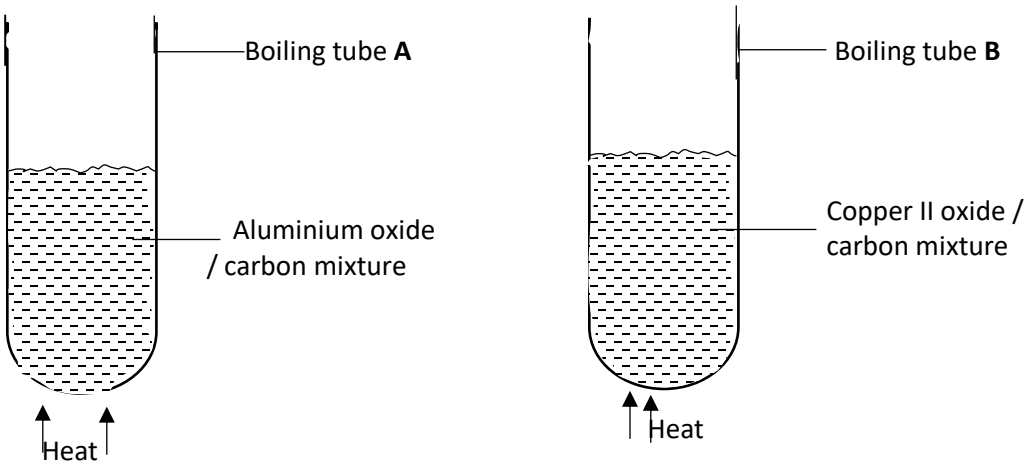
(iv) Chlorine gas is poisonous yet it is used to treat water. Explain. **(1 mark)**

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30. The diagrams below show the apparatus used to investigate one of the properties of carbon.



State and explain the observations made in each boiling tube. **(2 marks)**

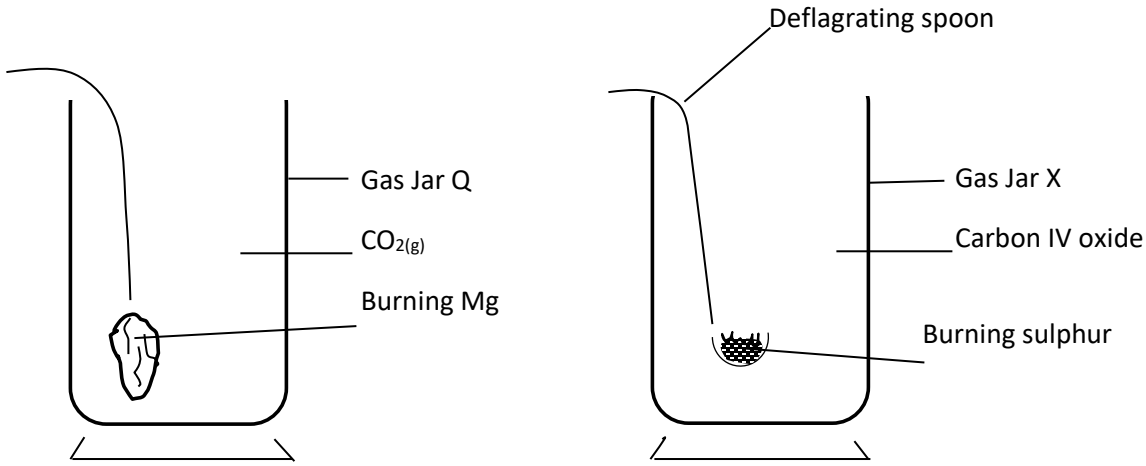
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31. The diagrams below show the apparatus used to investigate the properties of carbon IV oxide gas.



(i) State and explain the observations made in each gas jar. **(2 marks)**

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(ii) State **one** industrial use of carbon (IV) oxide. **(1 mark)**

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KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

CHEMISTRY

233/2

PAPER 2 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

(a) *Write your name, school and index number in the spaces provided above.*

(b) *Sign and write the date of examination in the space 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	10	
3	10	
4	10	
5	12	
6	13	
7	13	
Total score	**80**	

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

1. Below is part of periodic table with elements shown. The letters are not actual chemical symbols. Use it to answer question that follow.

					P	**C**	**D**	**E**
F	**G**				**B**		**H**	
Z								

(i) What is the most likely nature of the solution formed by the oxide of Z? **(1mk)**

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(ii) Chose a letter representing the most electronegative element. **(1mk)**

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(iii) Write a balanced equation for the reaction between B and oxygen. **(1mk)**

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(iv) Compare the reactivity of C and D. Explain your answer **(2mks)**

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(v) An element Q has mass number 40 and 22 protons. What is the position of Q on the grid? **(1mk)**

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(b) Study the information given and use it to answer the questions that follow

Formula	NaCl	$MgCl_2$	$AlCl_3$	$SiCl_4$	PCl_3	SCl_2
Boiling point (^{0}C)	1470	1420	___	60	75	60
Melting point (^{0}C)	800	710	Sublimes at 180^0C	-70	-90	-80

(i) Name the physical state of $SiCl_4$ at room temperature **(1mk)**

……

(ii) Although Aluminium and magnesium are metals, $AlCl_3$ has a much lower melting point than $MgCl_2$. Explain this observation. **(2mks)**

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(iii) Explain why the melting point of $SiCl_4$, PCl_3 and SCl_2 are low. **(1mk)**

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2. The table below gives reduction potentials obtained when half cells are connected to a standard half cell. Study it to answer questions that follow.

Electrode reactions E°/volts

$V^{2+}_{(aq)} + 2e^- \quad V_{(s)} \longrightarrow +0.56$

$X^{+}_{(aq)} + e^- \quad X_{(S)} \longrightarrow -2.97$

$Y^{+}_{(s)} + e^- \quad Y_{(s)} \longrightarrow 2.71$

$W^{+}_{(aq)} + e^- \quad W_{(S)} \longrightarrow +0.80$

$Z^{2+}_{(aq)} + 2e^- \quad Z_{(s)} \longrightarrow -2.85$

$R^{2+}_{(aq)}\ 2e^- \quad R_{(s)} \longrightarrow {}^-0.76$

$2P^{+} + 2e^- \quad P_{2(s)} \longrightarrow 0.00$

a) Select two half cells which would produce the highest e.m.f. Determine the e.m.f that would be produced. **(2mks)**

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b) Write down the cell representation of the cell formed in (a) above. **(1mk)**

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c) From the standard electrode potentials given select any two elements that can be used as the sacrificial metal in electroplating of R. **(2mks)**

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d) A steady current of 0.2A was passed through solution of X and Y ions for 2 hours. 16g of X and 0.0474g of Y were deposited.

(i) Determine the relative atomic mass of X if the formula of chloride of X is XCI (F 6500C, Y = 63.5) **(3mks)**

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(ii) Hence or otherwise determine the charge on Y. **(l mk)**

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e) State one use of a salt bridge, **(1 mk)**

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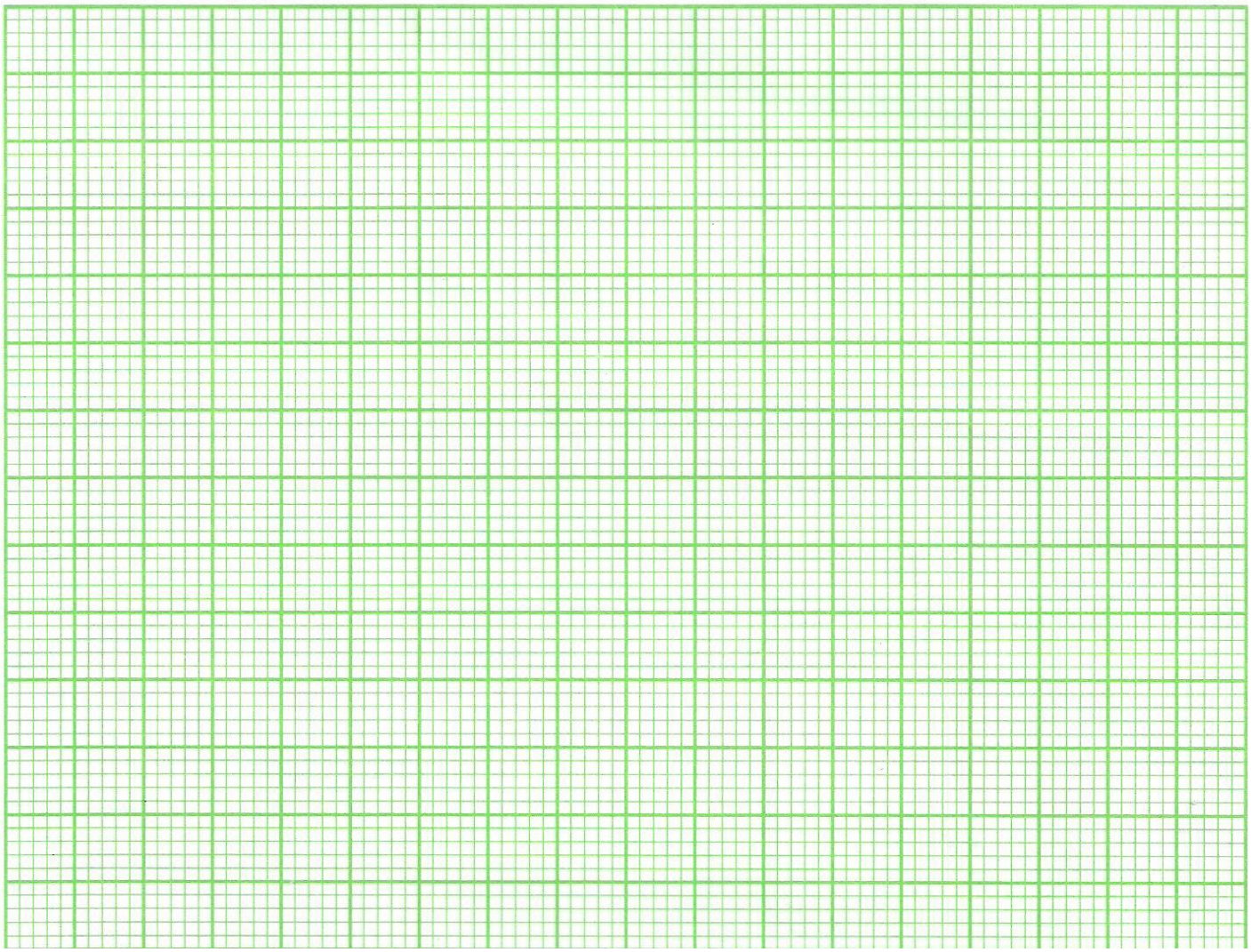
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3. In an experiment, 1.0 grams of an alloy of copper and magnesium were reacted with excess 4M hydrochloric acid, and the gas collected measured at different time intervals. The results were recorded as shown below.

a) (i) Write an equation for the chemical reaction taking place. **(1mk)**

Time in minutes	**Total volume of gas in / cm^3**
0	0
1	220
2	410
3	540
4	620
5	640
6	640
7	640

ii) Plot a graph of the volume of the gas (verticals axis) against time (horizontal axis) **(3mks)**



(b) Using the graph determine

i) The rate of reaction at 2 ½ minutes. **(1mk)**

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ii) The volume of the gas at the end of 3 ½ minutes. **(1mk)**

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c) The synthesis of ammonia from nitrogen and hydrogen is carried out in the Haber process using the equation below.

$$N_{2(g)} + 3H_2 \rightleftharpoons 2NH_{3(g)} \quad \Delta H° = -92kJ\ mol^{-1}$$

(i) What information is given by the thermochemical equation above? **(1mk)**

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(ii) Explain how an increase in temperature would affect other yield of ammonia. **(2mks)**

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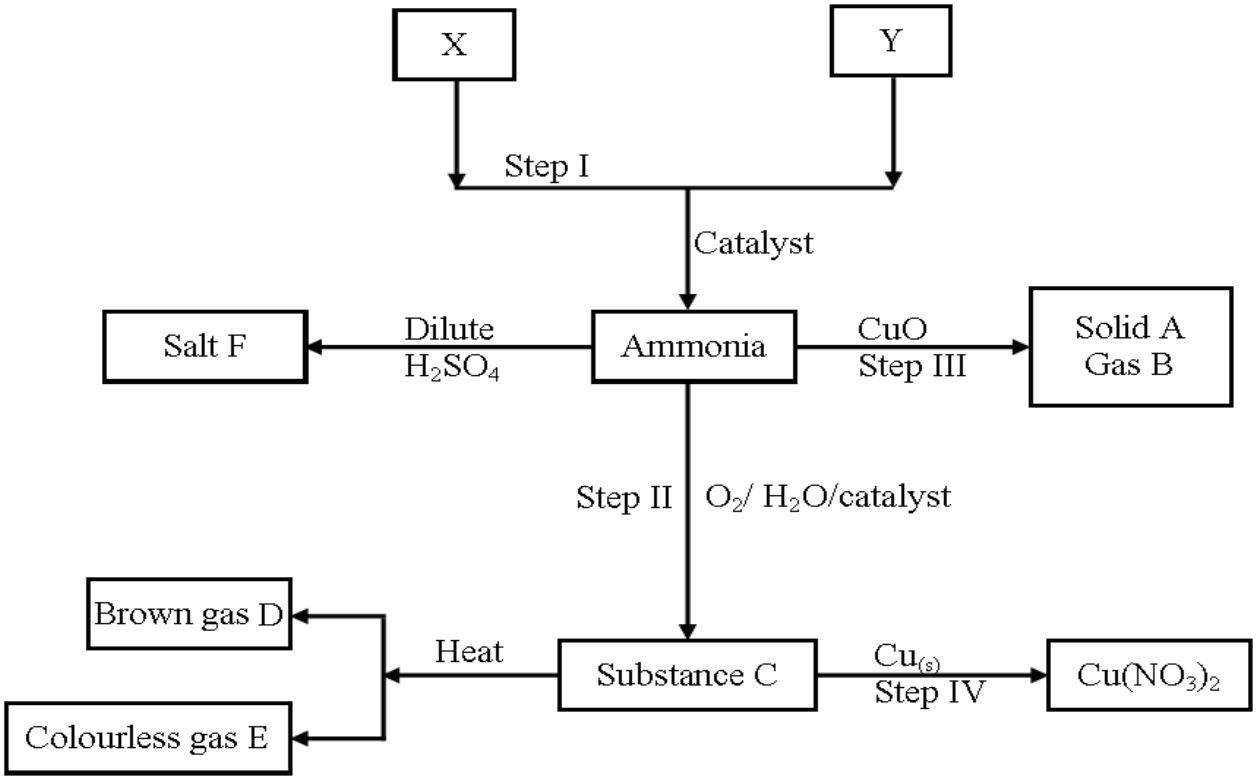
(iii) Explain how can a increase in pressure would affect the equilibrium of the mixture.**(2mks)**

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4. Study the scheme below and answer the questions that follow.



(a) State the sources of the substance X and Y. **(2mks)**

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(b) Identify the catalyst used in step I and how it is made to be effective. **(1mk)**

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(c) Name the substance A, B, C and E. **(2mks)**

A……..

B……...

C……...

E……...

(d) Write the chemical equations that shows

(i) The formation of substance C. **(1mk)**

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(ii) The reaction between substance C and copper metal. **(1mk)**

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(e) Describe a chemical test for gas E. **(1mk)**

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(f) **(i)** State one economic use of substance F. **(1mk)**

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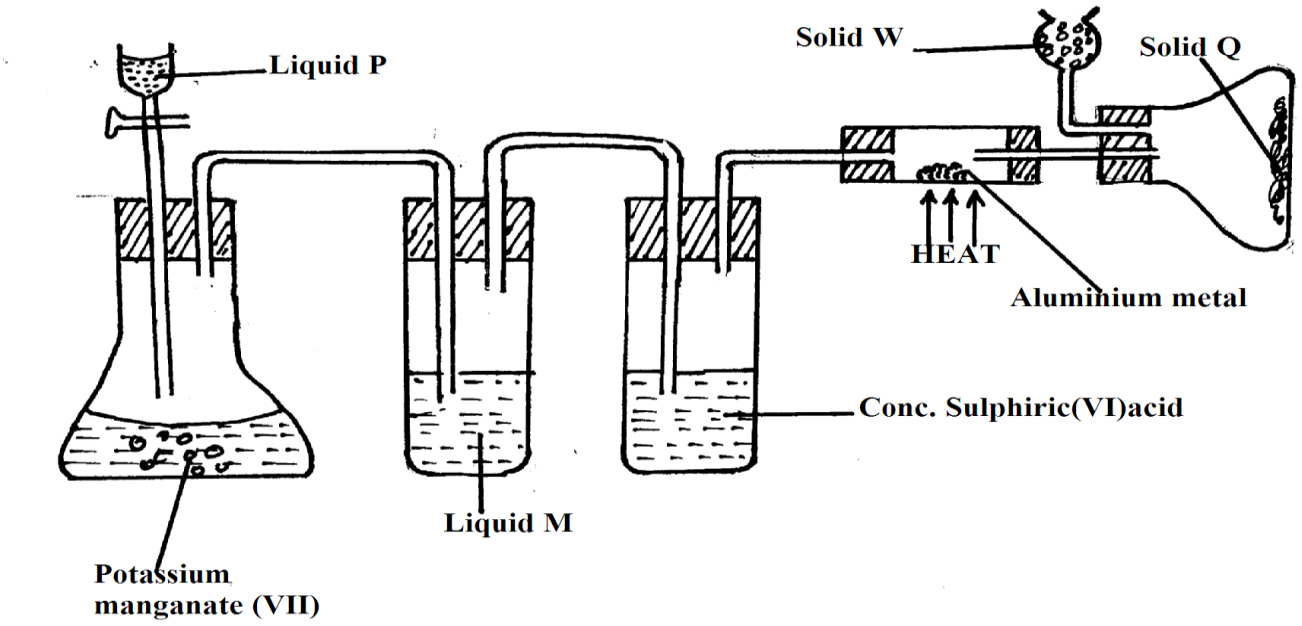
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(ii) Name the optimum conditions for the production ammonia gas. **(1mk)**

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5. (a) Study the diagram below and use it to answer the questions that follow.



(i) Name liquid:

P…… **(1mk)**

M…… **(1mk)**

(ii) What is the function of concentrated sulphuric(VI) acid in the set-up? **(1mk)**

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(iii) Suggest a suitable reagent that can be used as solid W. **(1mk)**

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(iv) State the role of solid W in the set-up. **(1mk)**

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(v) Explain why solid Q collect further away from heated aluminium metal. **(1mk)**

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(vi) In the reaction above, 0.645g of aluminium metal reacted completely with 1800cm^3 of chlorine gas at room temperature. Determine the molecular formula of solid Q, given that its relative formula mass is 267 (Al = 27.0, Cl = 35.5, molar volume of gas at r.t.p. is 24.0 litres) **(3mks)**

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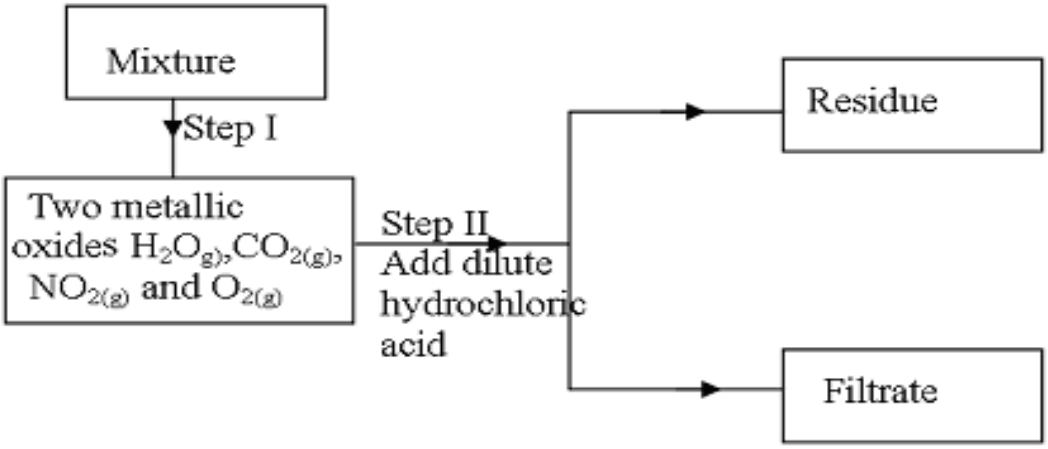
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(b) The flow chart below shows part of an analysis of a mixture that contains two salts.



(i) What condition is necessary for the process in step I to take place? **(1mk)**

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(ii) Draw a well labeled set-up of apparatus that could be used to separate the mixtures formed in step II. **(2mks)**

(a)Use the bond energies given in the table below to calculate the enthalpy change for the reaction.

$C_2H_{6\,(g)} + Br_{2\,(g)} \longrightarrow C_2H_5Br_{(g)} + HBr_{(g)}$ **(2mks)**

Bond	**C – H**	**C – Br**	**Br – Br**	**H – Br**
Bond energy kJ/mol	413	280	193	365

(b) Hydrogen peroxide decomposes according to the equation given below;

$H_2O_{2\,(l)} \longrightarrow H_2O_{(l)} + \frac{1}{2} O_{2\,(g)}$; $\Delta H = -98$ kJ/mol

If 6.8g of hydrogen peroxide contained in 75 cm^3 of solution with water were completely decomposed, determine the rise in temperature due to the reaction. **(2mks)**

(Specific heat capacity of water = 4.2 $Jg^{-1}K^{-1}$, density of water = 1 g/cm^3, O = 16, H = 1)

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(c) On the space provided below sketch the cooling curve that would be obtained when a boiling tube containing water at 80°C is immersed in a freezing mixture maintained at -10°C. **(3mks)**

(d) Butane C_4H_{10} cannot be prepared directly from its elements but its standard heat of formation (ΔH^{θ}_f) can be obtained indirectly. The following heats of combustion are given.

ΔH^{θ}_C carbon (s) = -393 kJ/mol

ΔH^{θ}_C H_2 (g) = -286 kJ/mol

ΔH^{θ}_C C_4H_{10} = -2877 kJ/mol

(i) Draw an energy cycle diagram linking the heat of formation of butane with its heat of combustion and the heat of combustion of its constituent elements. **(2mks)**

(ii) Calculate heat of formation of butane ΔH^{θ}_{f} (C_4H_{10}). **(2mks)**

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(e) Given that the lattice enthalpy of potassium chloride is +690 kJ/mol and hydration enthalpies of K^+ and Cl^- are -322 kJ and -364 kJ respectively. Calculate the enthalpy of solution of potassium chloride. **(2mks)**

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6. a) An aqueous solution of hydrogen peroxide decomposes according to the equation

$$2H_2O_{2(l)} \longrightarrow 2H_2O_{(l)} + O_{2(g)}$$

This reaction is fast at 20^0C in the presence of manganese (IV) oxide.

(i) What is the role of manganese (IV) oxide in the reaction. **(1mk)**

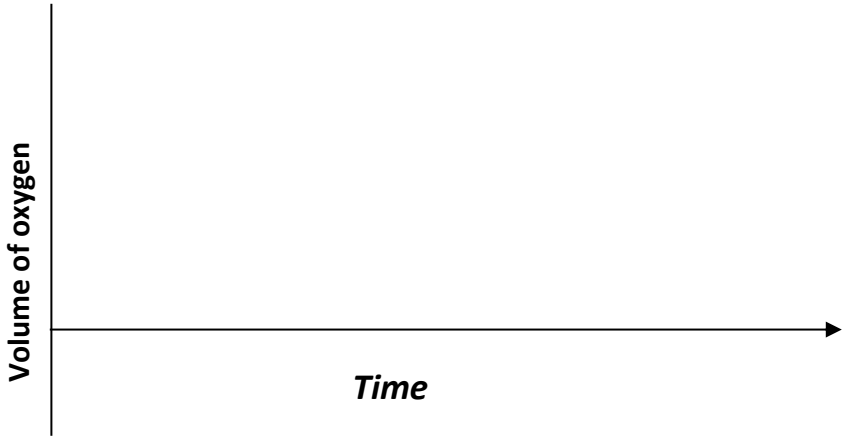
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(ii) Sketch graphs on the same grid provided below showing how the volume of oxygen (vertical axis) varies with

I. Time when 0.5g of manganese (IV) oxide is mixed with; 100cm^3 hydrogen peroxide solution, label this curve A. **(1mk)**

II. Time when the same experiment is repeated at 30^0C, label this curve B. **(1mk)**



(b) (i) Write the equation for the manufacture of ammonia hence explain how the increase in pressure affects the position of the equilibrium. **(2mks)**

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(ii) The reaction in b(i) above is exothermic, what is the effect of raising temperature on the equilibrium position? **(1mk)**

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6. a) Give the names of the following compounds.

(i) $CH_3CH_2CH_2CH_2OH$ …… **(1mk)**

(ii) CH_3-COO-CH_2-CH_3…….. **(1mk)**

b).One of the two formulae in (a) above represents a sweet smelling compound. Give the names of the two organic compounds that can be used to prepare this compound in the laboratory. **(2mks)**

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c), Ethane and Ethene react with Bromine according to the following equations given below:

i. $C_2H_{6(g)} + Br_{2(g)} \rightarrow C_2H_5Br_{(l)} + HBr_{(g)}$

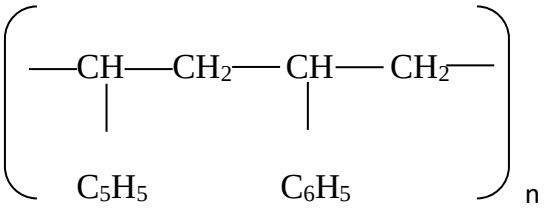
ii. $C_2H_{4(g)} + Br_{2(g)} \rightarrow C_2H_4Br_{2(l)}$

Name the type of bromination reaction taking place in

(i)…… (1mk)

(ii)…… (1mk)

d) A certain polymer has the following structure



What is meant by polymerization**?** **(1mk)**

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KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

CHEMISTRY

233/3

PAPER 3 (PRACTICAL)

TIME: 2¼ HOURS

SCHOOL…… SIGN……

CONFIDENTIAL

This document must not be seen by the candidates whatsoever

1. *80cm^3 of 0.5M lead (II) nitrate solution F*
2. *60cm^3 of 1M Potassium Iodide solution*
3. *2g of solid A supplied in a stoppered container*
4. *1g of solid P*
5. *2cm of magnesium ribbon*
6. *Thermometer*
7. *One 250ml glass beaker*
8. *One boiling tube*
9. *One test-tube holder*
10. *One stop watch*
11. *10ml measuring cylinder*
12. *100ml measuring cylinder*
13. *One dropper*
14. *30cm ruler*
15. *10 labels*
16. *Test tube rack*
17. *10 test tubes*
18. *Substance W – calcium chloride*
19. *Distilled water in a wash bottle*
20. *Solution E (aqueous sodium carbonate)*
21. *Tripod stand and wire gauze.*
22. *Substance W I g of calcium chloride supplied in a stoppered container.*

Access to

- Bunsen burner
- Acidified potassium dichromate (VI)
- Tissue paper
- Ethanol
- 2M ammonia solution
- 2M sodium hydroxide solution
- Bromine water

Notes:

Substance P - maleic acid

Substance A – sodium tetraborate decahydrate(sodium borax

Substance W – calcium chloride

Preparation of solutions

- Solution E is obtained by dissolving 21.2g of sodium carbonate in 600cm^3 of distilled water and diluting it to 1dm^3 of solution (0.2M Sodium Carbonate)

- Acidified potassium dichromate (VI) is prepared by dissolving 25g of solid $K_2Cr_2O_7$ in 200cm^3 of 2M H_2SO_4 and diluting with distilled water to make one litre of solution.

- Bromine water is done by taking 1cm^3 of bromine liquid and diluting with distilled water to make 100cm^3 of the solution in the fume chamber.

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

CHEMISTRY

233/3

PAPER 3 (PRACTICAL)

TIME: 2¼ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

1) *Write your name and Index Number in the spaces provided above.*
2) *Sign and write date of examination in the spaces provided above.*
3) *Answer all questions in the spaces provided in the question paper.*
4) *All workings must be clearly shown where necessary. Mathematical tables and silent electronic calculators may be used.*

FOR EXAMINER'S USE ONLY.

Question	Maximum Score	Candidates Score
1	22	
2	11	
3	07	
TOTAL	**40**	

Answer all questions in the spaces provided

Q1. **(a)** You are provided with **0.2g** of substance A labelled solid A

- You are required to determine the solubility of substance A in water.

PROCEDURE 1

i) Place 200cm^3 of tap water in a 250ml beaker and keep it for use in step (VI)

ii) Place all the substance A in a dry boiling tube boiling.

iii) Using a burette measure 10.0cm^3 of distilled water and add to substance A in the boiling tube.

iv) While stirring the mixture in the boiling tube with a thermometer, warm the mixture using a Bunsen burner until the temperature rises to 65℃. Stop warming the mixture.

v) Allow the mixture to cool while stirring with the thermometer.

vi) When the temperature drops to 60℃ , start the stop watch / clock, place the boiling tube in a beaker with tap water prepared in step (i) above.

vii) **Co**ntinue stirring and record the temperature of the mixture after two minutes then thereafter record the temperature of the mixture after every one minute interval and complete the table 1.

TABLE 1.

Time in minutes	0	2	3	4	5	6	7	8	9	10
Temperature (℃)	60									

(4mks)

……

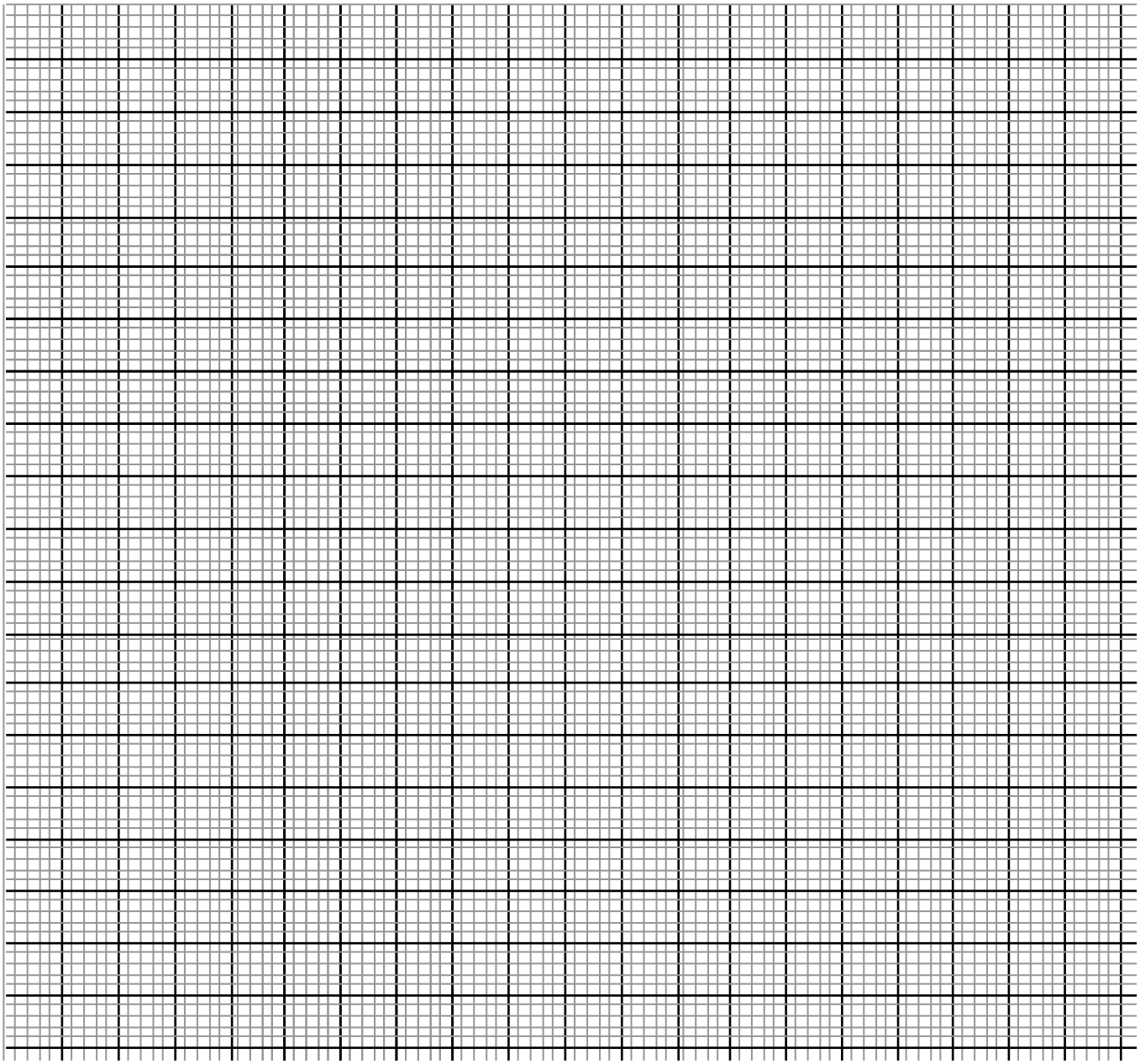
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a) On the graph provided, plot a graph of temperature (vertical axis) against time. **(3mks)**



b) Using the graph, determine the temperature (T) when 2.0g of substance A dissolves completely in 10cm^3 of distilled water. **(1mk)**

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……

……

c) Calculate the solubility of substance A in grammes per 100g of water at temperatures (T)

(2mks)

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(b) You are provided with:

- 1M Potassium iodide solution
- 0.5m Lead (II) nitrate solution
- Ethanol

You are required to determine the formulae of lead (II) iodide and the equation for the reaction between lead (II) nitrate and potassium iodide.

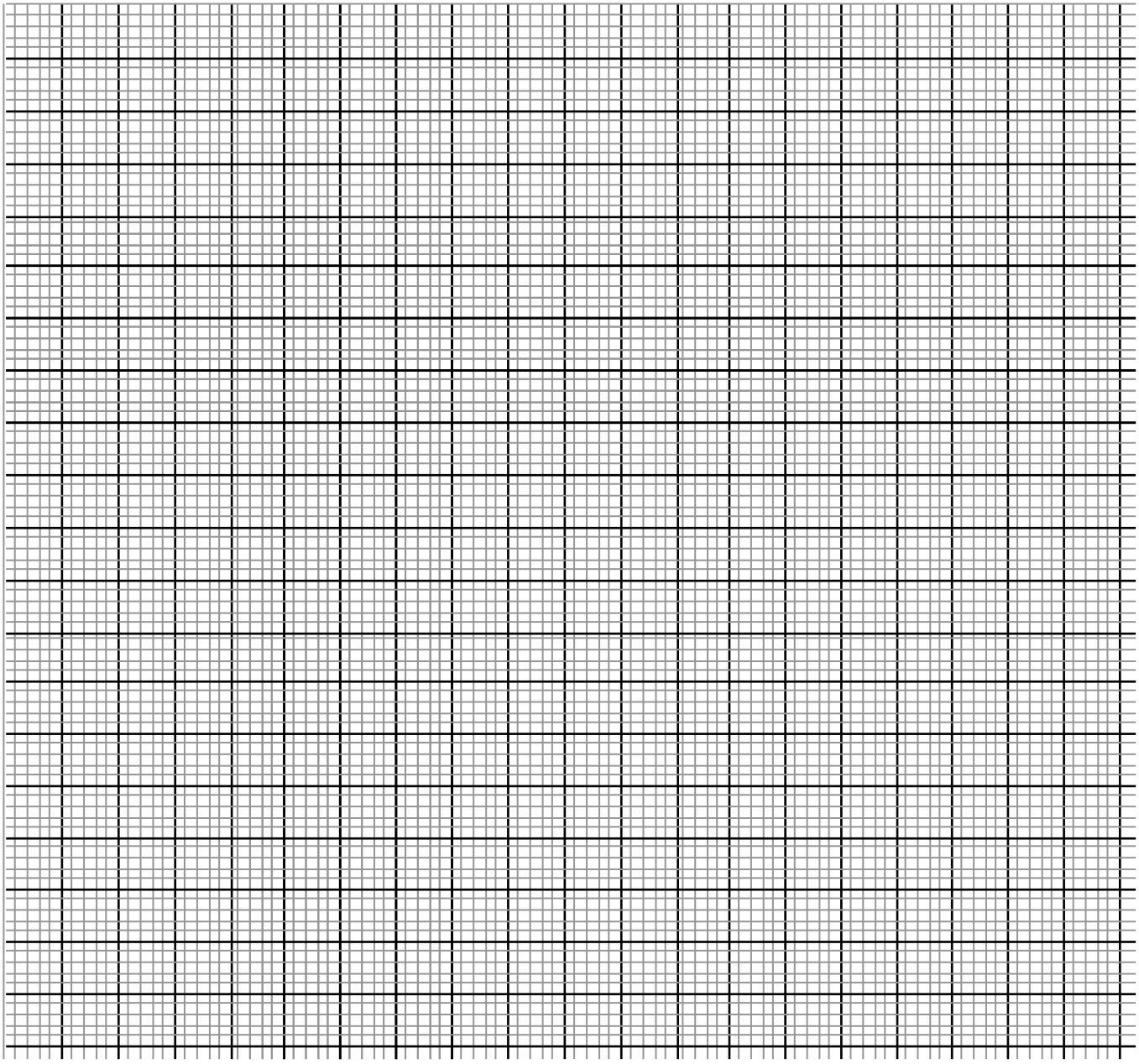
Procedure 2

Take 5 test tube and label them 1, 2,3,4,5 and 6,7. Using a burette add to separate test tube volumes of aqueous potassium iodide and aqueous lead (II) nitrate as shown in the table below; followed by 3-4 drops of ethanol. Stir and allow to settle. Measure the height of the precipitate in each test tube in mm and record the measurements in the table below. **(4 marks)**

Table 2

Test tube no	1	2	3	4	5	6	7	8
Volume of KI (cm^3)	2	3	4	5	6	7	8	9
Volume of $Pb(NO_3)_2$ cm^3	10	9	8	7	6	5	4	3
Height of the precipitate (mm)								

a) Plot a graph of height of the precipitate against the volume of lead (II) nitrate. **(3 marks)**



b) Use your graph to

i) Find the maximum height of the precipitate formed. **(1mk)**

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ii) Determine the volume of the 0.5M Pb $(NO_3)_2$ used in b (i) above **(1mk)**

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iii) Determine the volume of 1M Potassium Iodide that completely reacts with 0.5M Pb $(NO_3)_{2\,(aq)}$ Potassium iodide solution. **(1mk)**

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iv) Use your answer in b(ii) above to determine the number of moles iodide ions which reacts with one mole of lead (II) ions hence determine the formulae of lead (II) iodide. **(2mks)**

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2. You are provided with

- Substance W 0.5g
- Sodium hydroxide
- Aqueous ammonia
- Solution F – aqueous lead (II) Nitrate
- Distilled water in wash bottle
- Source of heat

a) Describe the appearance of substance W **(1 mark)**

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……

b) Add 10cm^3 water to substance W

Observation	Inference
$(^1/_2\, mk)$	$(^1/_2\, mk)$

c) Substance W is suspected to be calcium chloride.

From the reagent provided and results in procedure (b) above select and describe four tests that could be carried out consequently to confirm substance W is calcium chloride. Write the results and expected observation in the spaces provided. **(6mks)**

Test 1	Expected observation
(1mk)	(1mk)

Test 2	Expected observation

(1mk)	$(^{1}/_{2}\ mk)$

Test 3	Expected observation
(1mk)	(1mk)

d) Carry out the tests described in (c) above using substance W and record the observations and inferences in the spaces provided.

i) Test 1

Observation	Inference
(1 mk)	(1mk)

ii) Test 2

Observation	Inference
$(^1/_2\, mk)$	(1mk)

iii) Test 3

Observation	Inference
(1 mk)	(1mk)

3. You are provided with substance P. Carry out the following test and record your observation and inferences in the spaces provided. Use about $2cm^3$ of portion of substance P in a test tube for each tests a, b, c and d

a) Add about 2 or 3 drops of bromine water.

Observation	Inference
$(^1/_2\, mk)$	$(^1/_2\, mk)$

b) Add about $1cm^3$ of acidified potassium dichromate (VI) warm the mixture.

Observation	Inference
(1mk)	(1mk)

c) Add about $1cm^3$ of solution to E (aqueous sodium carbonate provided)

Observation	Inference
(1 mk)	($1mk$)

d) Add the piece of magnesium ribbon provided

Observation	Inference
(1 mk)	($1mk$)

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

PHYSICS

232/1

PAPER 1 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

i) *Answer **all** questions in the spaces provided*

ii) *Non programmable scientific calculators and mathematical tables may be used*

iii) *All numerical answers must be expressed in **decimal notation***

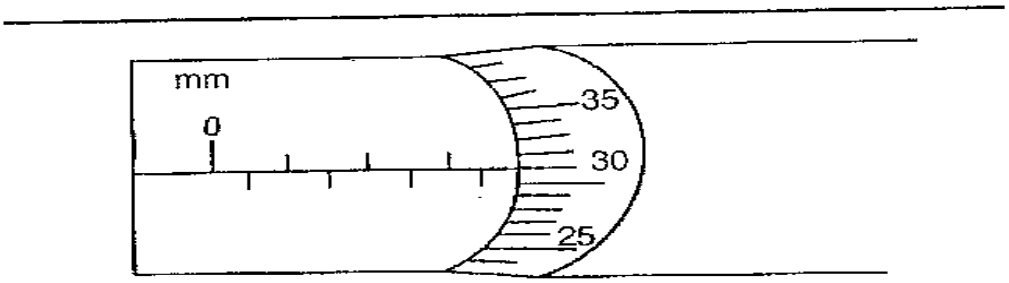
Constant: g=10n/kg

Section	Questions	Maximum score	Candidate's score
Section A	1-15	25	
Section B	16-20	55	
Total	20	80	

SECTION A (25 MARKS)

Answer All the Questions In This Section

1) State the reading on the micrometer screw gauge shown below. **(1mark)**



2) An oil drop forms a circular patch of area $5x10^{-3}$ m^2.If the oil drop has a volume $9x10^{-12}$ m^3, calculate the thickness of the oil molecule **(2marks)**

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3) Name one non contact force **(1mark)**

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4) A crane just lifts 9940N when an effort of 116N is applied and its efficiency is 75%. Find it's velocity ratio. **(3marks)**

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5) The mass of a vessel is 90g and its specific heat capacity is 420J/Kgk. Calculate its heat capacity **(3marks)**

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5) Explain the term absolute zero temperature **(1mark)**

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7) Two table tennis balls are suspended from a support by thin string and air is blown between them. Explain the consequent motion of the balls. **(2marks)**

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8) State the Hooke's law. **1mark)**

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9) Give **a reason** why heat transfer by radiation is faster than heat transfer by conduction. **(1mark)**

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……

10) The moment of the weight of vertical door does not significantly affect the moment of the force to the door .Give a reason for this **1mark)**

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11) In the Brownian motion experiment, smoke particles are observed to move randomly. Explain how this motion is caused. **(2marks)**

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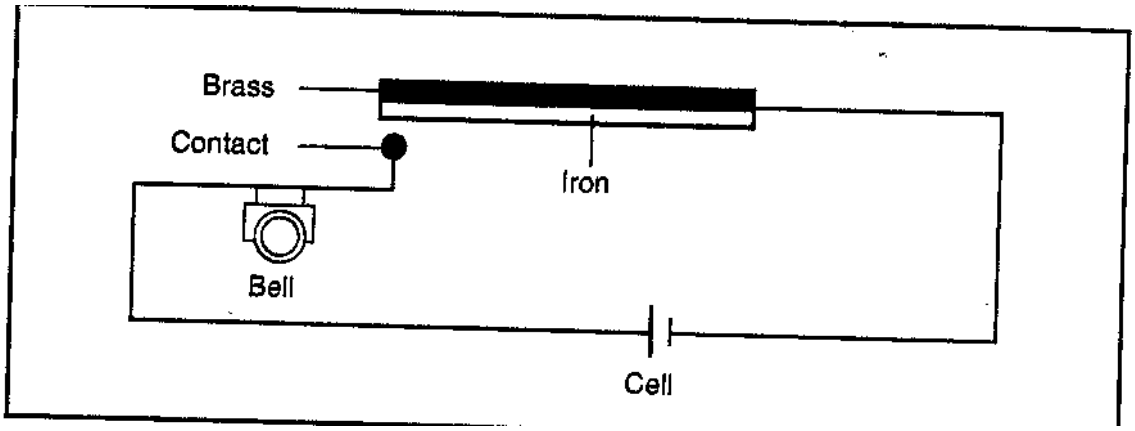
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12) Give **reason** why weight of a body varies from place to place **(1mark)**

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13) The figure below shows a fire alarm circuit. Explain how the alarm functions. **2marks)**



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14) State the **reason** why water spilled on a glass surface wets the surface. **(1mark)**

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15) Two liquids of density 1100kg/m^3 and 850kg/m^3 are mixed in equal volumes .The mixture fills a tank of 300cmx40cmx50cm to the brim. Calculate the mass of each liquid. **(3marks)**

SECTION B (55 MARKS)

Answer All The Questions In This Section

16) The figure below shows a hydraulic press system using a lever of negligible mass, on the side of the small piston, pivoted at point P. A force of 50N is applied.

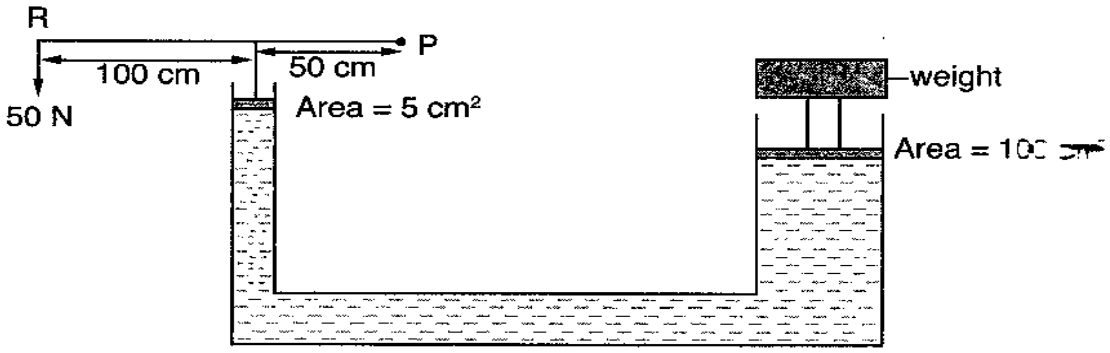


Fig. 4.73

a) Calculate the:

i) Force exerted by the small piston on the liquid **(3 marks)**

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ii) Pressure of the liquid below the small piston. **(3 marks)**

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iii) Weight of the object supported on the larger piston **(3 marks)**

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b) State two properties of the fluid used in the hydraulic press. **(2marks)**

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17) a) State Newton's second law of motion **(1mark)**

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b) A body accelerates uniformly from rest to 30m/s in 10s.Find its acceleration **(2marks)**

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c) A car of mass 800kg moving with a speed of 15m/s crashes into a wall and comes to rest in 0.4 s. Find the :

i) Impulse **(3 marks)**

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ii) Average force by the wall **(3 marks)**

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d) A steel ball is released at the top of a tall glass cylinder containing a viscous liquid. Sketch the velocity –time graph for this motion **(2 marks)**

18) a) State the law of flotation **(1mark)**

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b) A uniform glass test tube of diameter 1.62cm containing lead shots floats in water with 14.9 cm in water.

i) State the function of the lead shots **(1mark)**

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ii) Calculate the total mass of tube and its contents **(4 marks)**

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iii) Find the length immersed in a liquid of relative density of 1.6 **3marks)**

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C) A solid displaces $5cm^3$ of paraffin when floating and $25cm^3$ when fully immersed. Determine the density of the solid (Density of paraffin $=800kg/m^3$) **(4marks)**

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19) a) A ball of mass 200g tied to a spring is being whirled in a vertical circle of radius 0.4m with uniform speed. At the lowest position, the tension in the string is 2.8N.Calculate the:

i) Uniform speed of the ball **(3marks)**

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ii) Tension in the string when the ball is at the upper most position of the circular path **(3marks)**

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b) A metal ball of mass 10kg is rotated horizontally by means of a rope 4m long .If its linear speed is 30m/s, find the force that will break the rope. **(3marks)**

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c) A body moving with uniform speed in a circular path is accelerates. Explain **(1mark)**

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20) a) State the principle of moments **(1mark)**

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b) A uniform wooden lath measuring 200cm by 25cm by 15cm is suspended at the 150cm mark and balanced horizontally by hanging a mass of 14 kg at the 200cm mark. Calculate the:

i) Mass of the wooden lath **(3marks)**

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ii) Density of the material of the wooden lath **(3marks)**

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iii) Tension in the rope supporting the system **(3marks)**

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KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

PHYSICS

232/2

PAPER 2 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS

1) *This paper consists of two sections A and B*

2) *Answer all the questions in both sections in the spaces provided*

3) *All working must be clearly shown*

4) *Electronic Calculators may be used*

FOR EXAMINERS USE ONLY

Section	Questions	Maximum Score	Candidates Score
A	1-11	25	
B	12-17	55	
TOTAL		80	

SECTION A (25 MARKS)

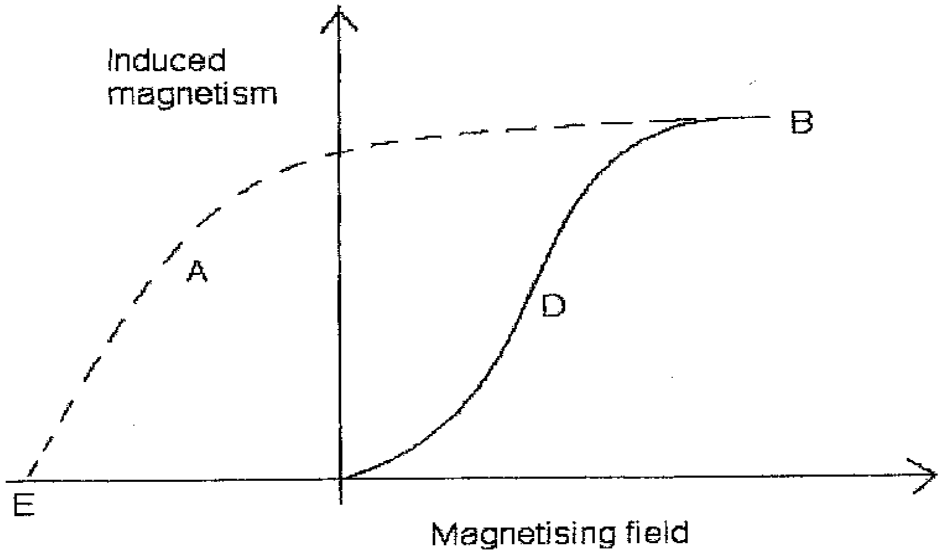
1. Name one source and use of infrared radiation **(2mks)**

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2. The figure below shows curves obtained with a magnetic material



State what curves A and B represent **(2mks)**

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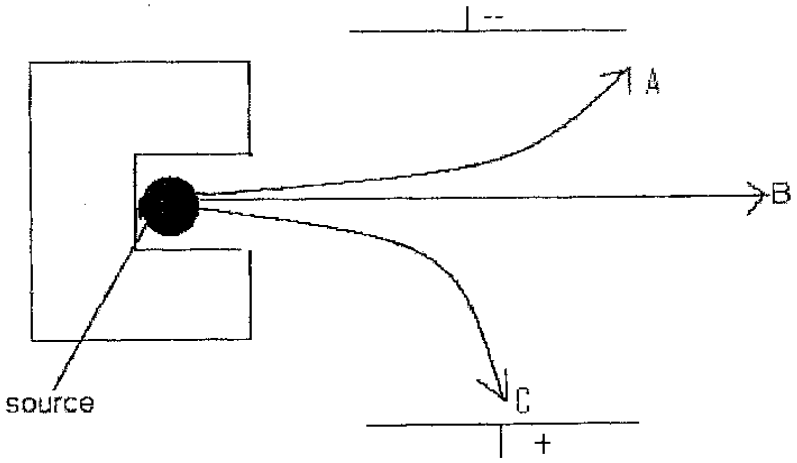
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3. State the importance of ear thing in domestic wiring **(1mk)**

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4. The figure below shows the three nuclear radiation labeled A, B, and C under the influence of an electric field.



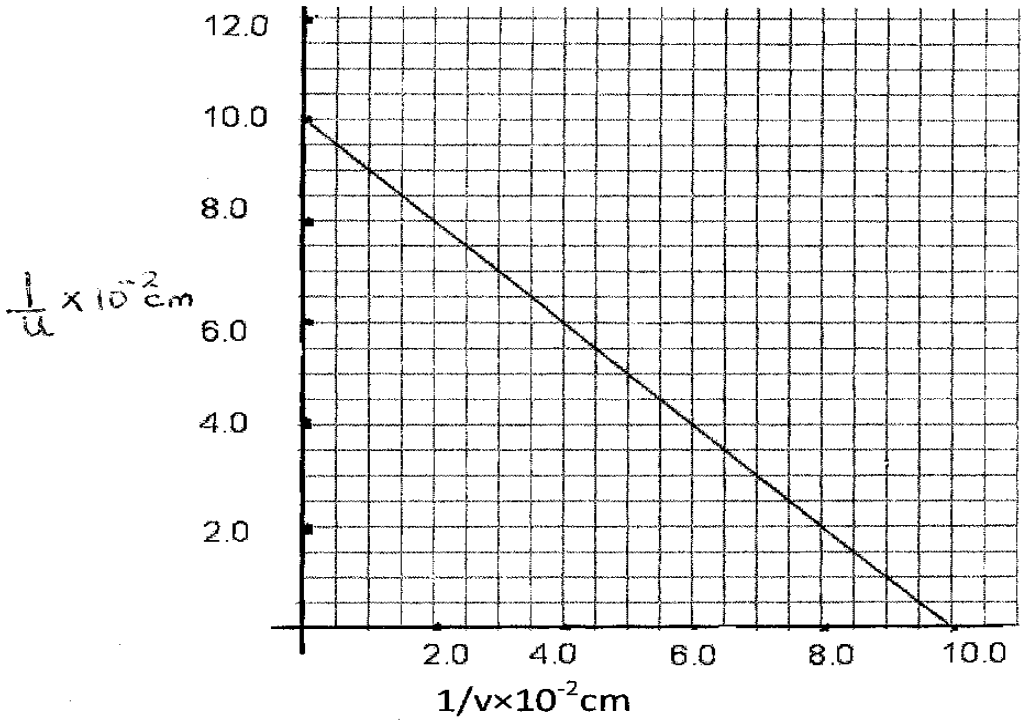
Identify the radiation A, B and C **(3mks)**

A……

B……

C……

5. In an experiment with a convex lens, image distances were measured when an object was placed at various distances away from the lens. The figure below shows a graph of 1/v against 1/u for the experiment where u is the object and v is the image distance.



Use the graph to find the focal length f of the lens **(3mks)**

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6. A student synchronizes his watch with a church bell 2km away. The following morning, there is a wind. He notes that the church bell sounded 0.15s later. Assuming his watch is correct and bell was sounded at the usual time. Determine the direction of the wind and its speed. (Assuming the speed of sound in still air is 340ms $^{-1}$) **(3mks)**

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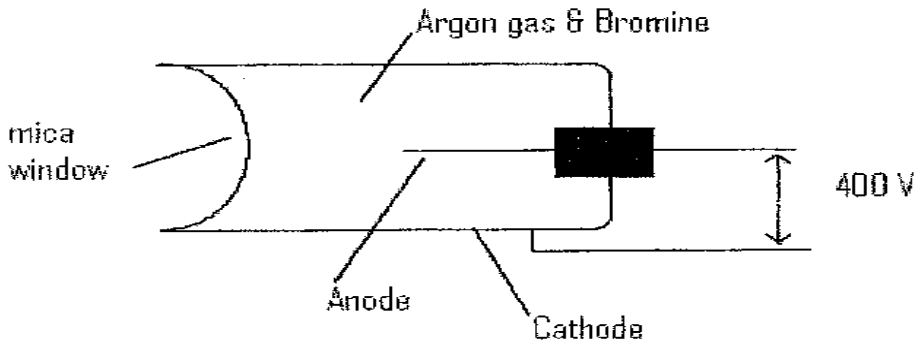
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7. The figure below shows a GM tube



i) Give a reason why the mica window is made thin **(1mk)**

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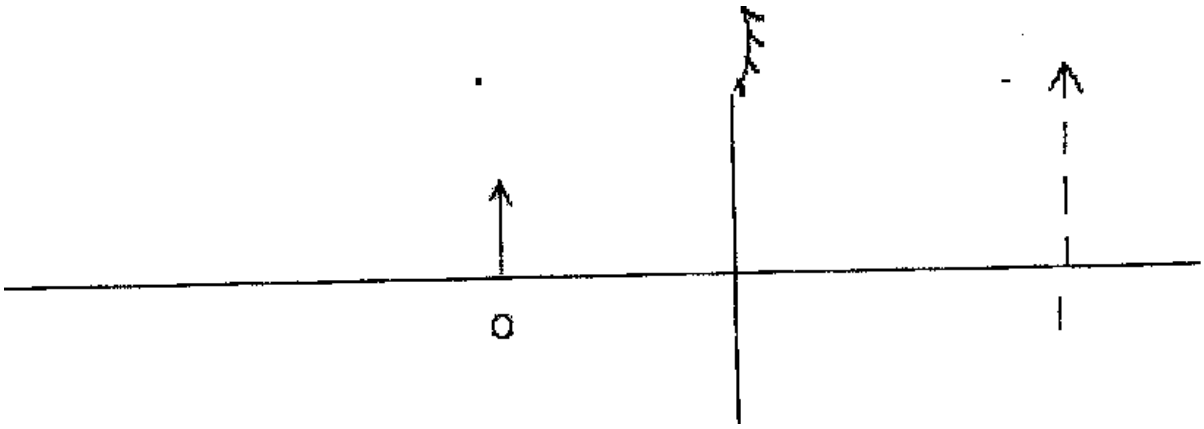
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ii) The tube has got a small amount of bromine. State the purpose of the bromine in the tube **(1mk)**

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Study the ray diagram below and use it to answer question 8 & 9



8. Complete the diagram by drawing the correct rays on it **(1mk)**

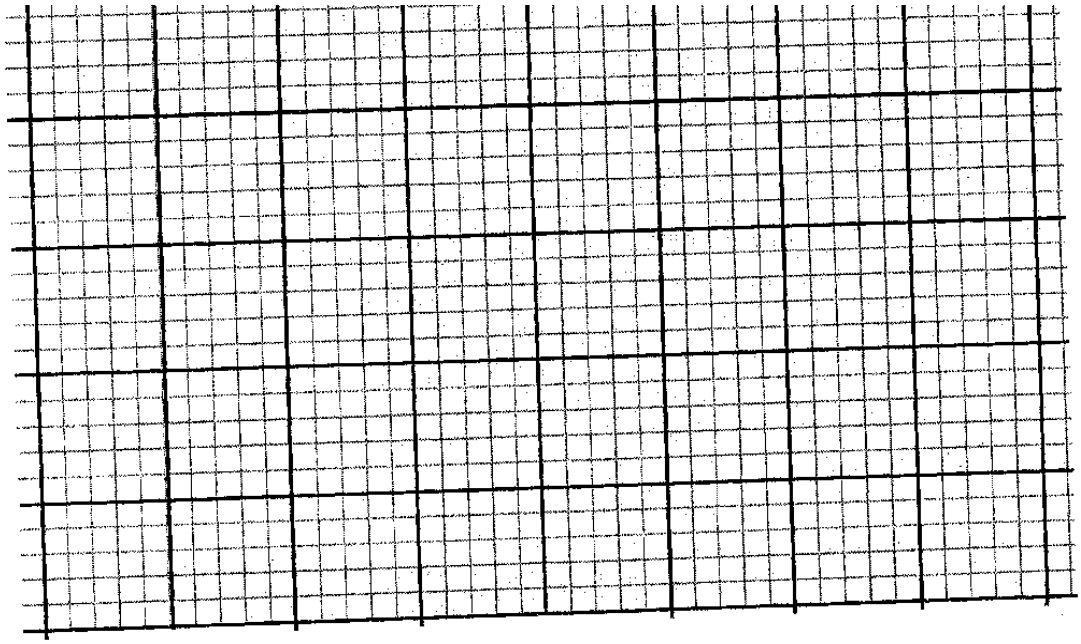
9. Use your drawing to determine the focal length f of the mirror **(2mks)**

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10. A 5V ac signal with a frequency of 50Hz is applied across the y-plates. The y-gain and time base setting is 2.5V/cm and 10Ms/cm respectively. Use the information above to sketch a wave form as seen on CRO screen **(3mks)**



11. State Faraday's law of electromagnetic induction **(1mk)**

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12. State three points to observe in maintaining a lead-acid battery **(3mks)**

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SECTION B(55 MARKS)

13. a) State three factors affecting the capacitance or a parallel plate capacitor **(3mks)**

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b) You are provided with the following apparatus

-uncharged capacitor
-Voltmeter
-Milliammeter
-12v battery
-A load resistor
-Two way switch

i) Using the above apparatus draw a circuit diagram that can be used to study the charging and discharging the capacitor. **(3mks)**

ii) Use the diagram in b(i) to describe how a fully charged capacitor is discharged **(2mks)**

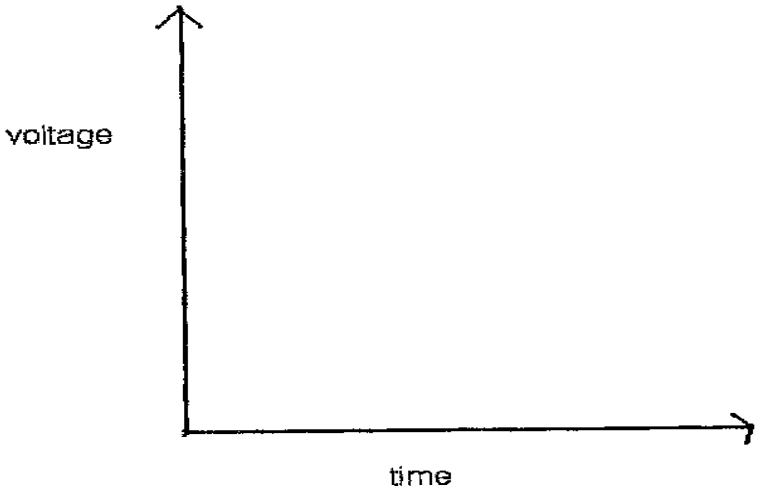
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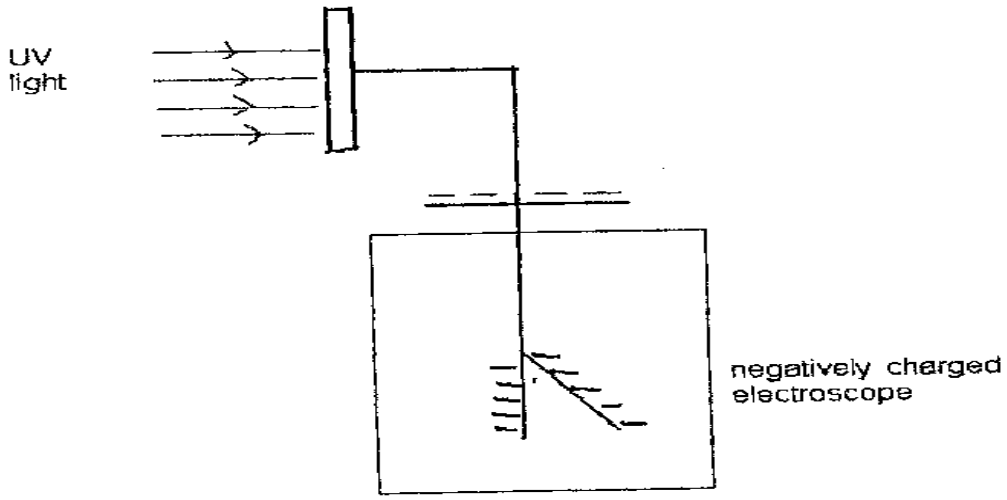
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iii) On the axis provided sketch a voltage –time graph of discharging of capacitor **(1mk)**



c) The zinc plate shown below connected to the electroscope and is exposed to ultraviolet radiation.



Explain what happens to the charged electroscope **(2mks)**

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14.a) With the aid of a well labeled diagram, explain how lunar eclipse occurs. **(4mk)**

b) Explain why large convex mirrors are placed at certain points in supermarket **(2mks)**

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c) An object 2.5 m tall is at a point 8m from a pinhole camera. If the distance of the screen is 8.16m from the object, calculate the size of the image **(3mks)**

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d) i) Draw a diagram to show how prisms are used in a periscope **(2mks)**

ii) Calculate the critical angle of a ray of light passing from glass to water, if their refractive indices are $^{2}/_{3}$ and $^{4}/_{3}$ respectively. **(3mks)**

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15.a) State the Ohms' law **(1mk)**

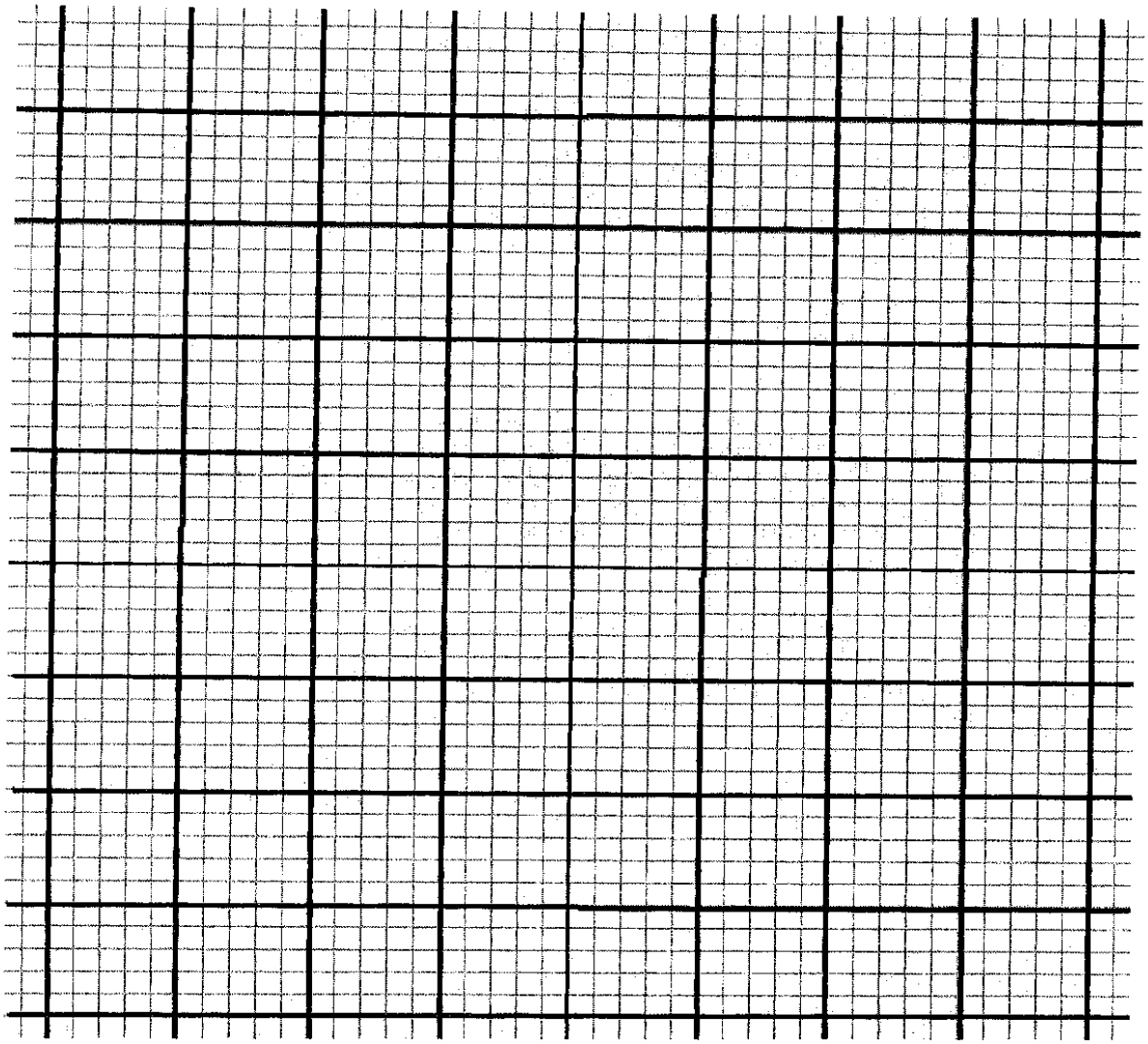
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b) Three resistors x,y and z where x = 200 Ω, y = 100 Ω and z is unknown resistance are connected in parallel. This arrangement is then placed in a circuit and current passing through, and potential difference across its measured the table below shows the result.

p.d(v)	2.0	4.0	6.0	8.0	10.0	12.0
Current(l) (A)	0.10	0.20	0.30	0.40	0.50	0.60

i) Plot a graph of p.d against current **(4mks)**



ii) Use your graph to calculate the value of unknown resistance. **(4mks)**

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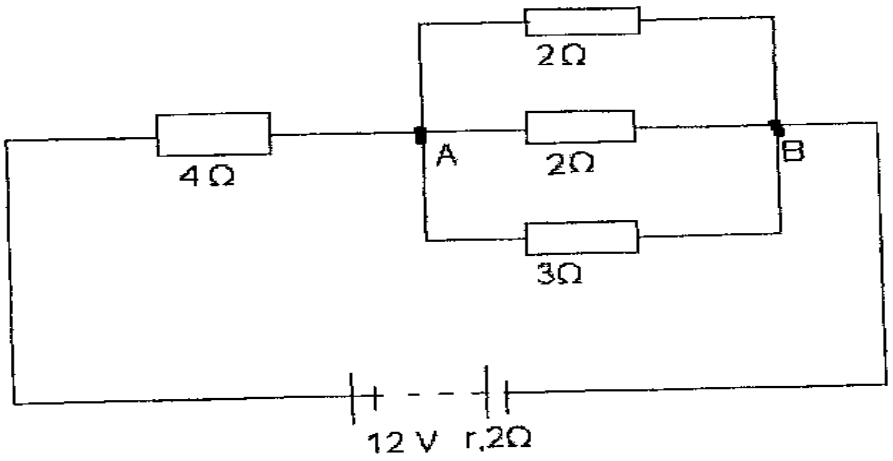
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c) Four resistors are connected in a circuit as shown in the diagram below



Calculate the p.d across AB. **(3mks)**

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16.a) Distinguish between diffraction and refraction of waves **(1mk)**

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b) Explain clearly how the following affect light intensity in the young's double slit experiment

i) Separation of the slits **(2mks)**

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ii) Width of the slits **(2mks)**

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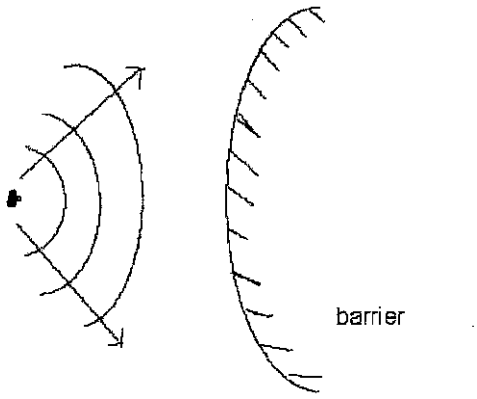
iii) Frequency of incident light **(2mks)**

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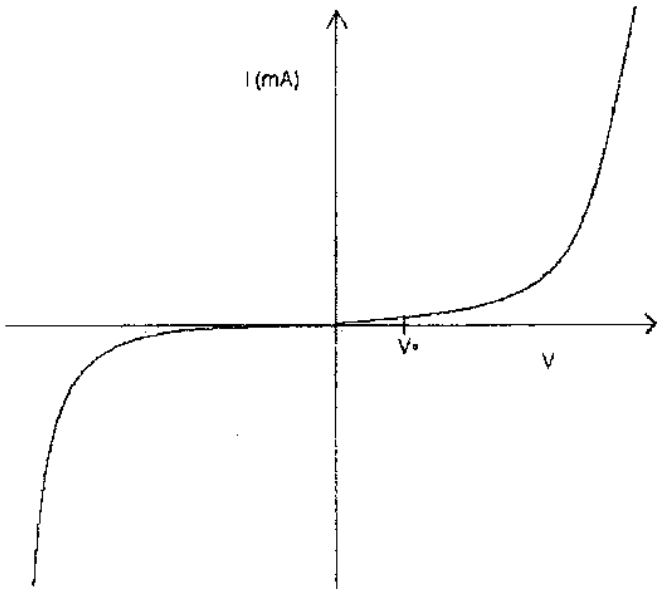
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c) The figure below shows circular wave fronts approaching a convex barrier. Complete the figure to show what happens to the wave fronts after reflection on the barrier. **(2mks)**



17. The figure below shows current-voltage characteristics of a junction diode.



a) In the forward bios, the diode does not conduct until a certain minimal voltage is reached. Explain the effect **(2mks)**

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b) Where the voltage is increased in reverse bias, the diode conducts when a certain voltage is reached. What is the name given to this voltage **(1mk)**

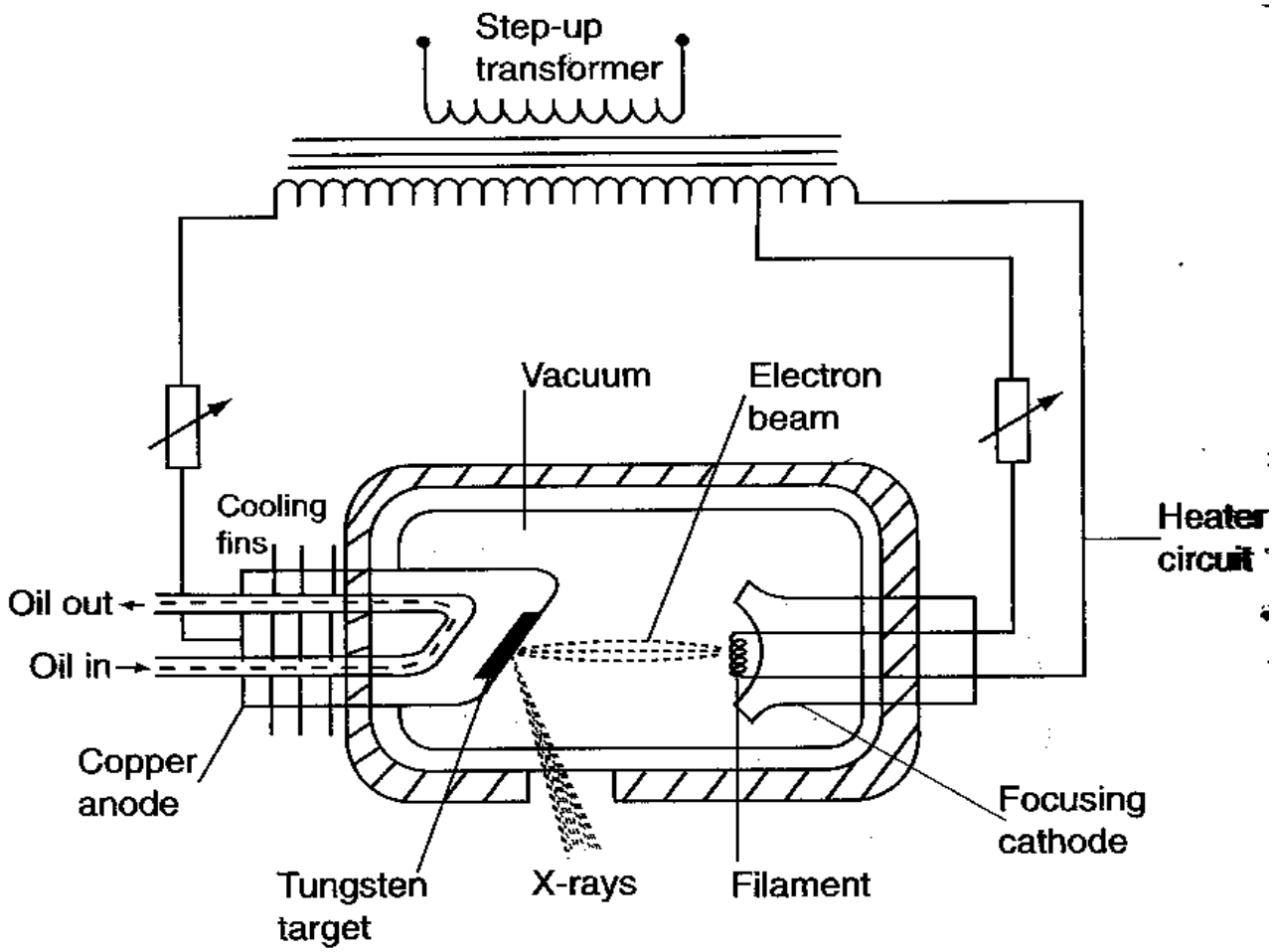
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c) i) List two properties of x-rays **(2mks)**

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ii) The figure shows a simplified illustration of an x-ray tube



Explain the following features in an x-ray tube

Low pressure **1 mk)**

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Lead shield **1 mk)**

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iii) Explain the adjustment that can be made to obtain hard x-rays **(2mks)**

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KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

PHYSICS

232/3

PAPER 3 (PRACTICAL)

TIME: 2½ HOURS

SCHOOL…… SIGN……

Kenya Certificate of Secondary Education.

CONFIDENTIAL

1. *Two metre rules (one metre rule and half metre rule)*
2. *Two stands and clamps*
3. *Two bosses*
4. *Three pieces of threads (at least 1m, 30cm, 30cm)*
5. *A spring*
6. *A piece of cellotape or a plasticine*
7. *One mass 100g*
8. *A stop watch*
9. *Optical pin*
10. *A glass block (rectangular)*
11. *Soft board*
12. *Plane mirror*
13. *Four optical pins*
14. *Four thumb pins*
15. *A protractor*
16. *A ruler*

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

PHYSICS

232/3

PAPER 3 (PRACTICAL)

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

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) *Answer ALL the questions in the spaces provided in the question paper.*

(d) *You are supposed to spend the first 15 minutes of the 2½ hours allowed for this paper reading the whole paper carefully before commencing your work.*

(e) *Marks are given for a clear record of the observations actually made, their suitability, accuracy and the use made of them.*

(f) *Candidates are advised to record their observations as soon as they are made.*

(g) *Non-programmable silent electronic calculators may be used.*

For Examiner's Use Only

QUESTIONS	MAX.SCORE	CANDIDATE SCORE
1	20	
2	20	
Total score	40	

Answer ALL the questions in the spaces provided

1. You are provided with the following apparatus.

(a) Two metre rules (one metre rule and half metre rule)

(b) Two stands and clamps

(c) Two bosses

(d) Three pieces of threads (at least 1m, 30cm, 30cm)

(e) A spring

(f) A piece of cellotape or a plasticine

(g) One mass 100g

(h) A stop watch

(i) Optical pin

PROCEED AS FOLLOWS

i) Set the apparatus as shown in the figure below. Attach the optical pin (to act as the pointer) at one end of the metre rule using a cellotape.

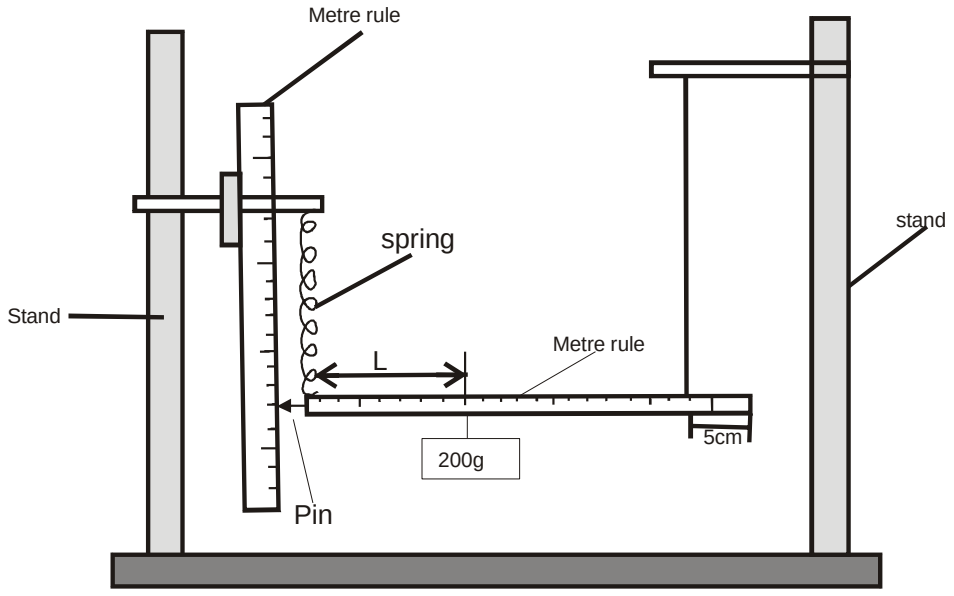


Figure 1

ii) Suspend one end of the metre rule with a thread at 5cm mark from the other end.

iii) Suspend the other end with a spring also 5cm from the end so that the metre rule is horizontal.

iv) Hold the other ruler vertically on the bench so that it is near the end with a pointer as shown in the diagram above.

v) Read the pointer position, L_0= ……cm **(1 Mark)**

vi) Hang on the horizontal metre rule, the 100g mass at a length, L=10cm from the spring. Record the extension, e, of the spring in the table below.

vii) Displace the mass slightly downwards and release it to oscillate vertically. Take time for 20 oscillations and record in the table below.

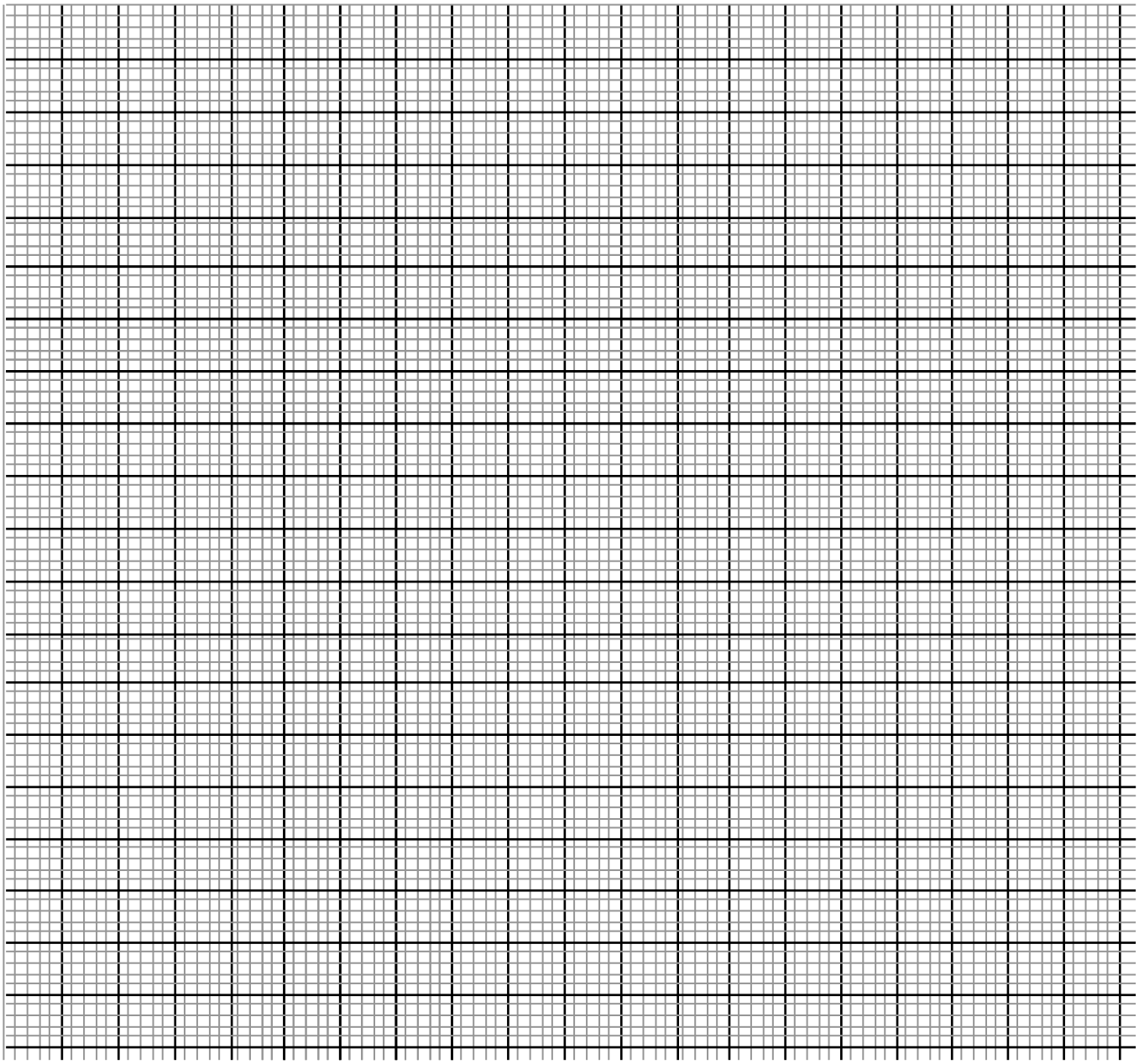
viii) Repeat for other position of L, of the mass.

NB: Before taking the reading, ensure the oscillation is steady.

Complete the table below. **(8Marks)**

Length, (cm)		**10**	**20**	**30**	**40**	**50**
Extension	(cm)					
	(m)					
Time t(s), for 20 oscillations						
Period time T(s)						
$T^2(s^2)$						

i) Plot a graph of extension e(m) against $T^2(s^2)$ **(5 Marks**



ii) Calculate the slope of the graph. **(3 Marks)**

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iii) Given that $e = \frac{RT^2}{4\pi^2} + C$, determine the value of R. **(3 Marks)**

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2. You are provided with the following apparatus

- A glass block (rectangular)
- Soft board
- Plane mirror
- Four optical pins
- Four thumb pins
- A protractor
- A ruler

Proceed as follows

a) Fix the plane paper on the soft board using the four thumb pins

b) Place the glass block on the plane paper (fixed on the soft board). Let the glass block rest on the paper from the broader face

c) Trace the glass block using a pencil

d) Remove the glass block

e) Mark point X on the one of the longer side of the traced glass block a shown below. Point X should be 2cm from edge A

▪

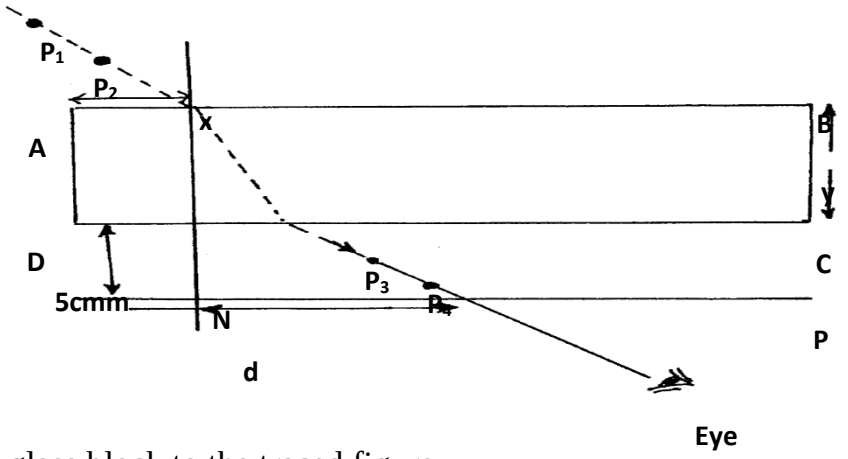


(e) Construct a normal at **x** to emerge through line **DC**. Let this normal meet line **DC** at point **M.**

(f) Mark point **N** along the emergent normal. 5cm from **M**

(g) Construct line **NP** to meet the normal at **N** at 90^{o}. Line **NP** can be about 10cm

(h) Using a protractor, construct an incident ray Rx at an angle of incidence c=10^{o}. Fix two pins **P1** and **P2** along **RX**.



(i) Replace the glass block to the traced figure

(j) View the path of the incident ray **RX** through the glass block using the other two pins **P3** and **P4.** This can be done by ensuring that the images of pin **P1** and **P2** are in line with **P3** and **P4**

(k) Remove the glass block and draw the emergent ray through **P3** and **P4**

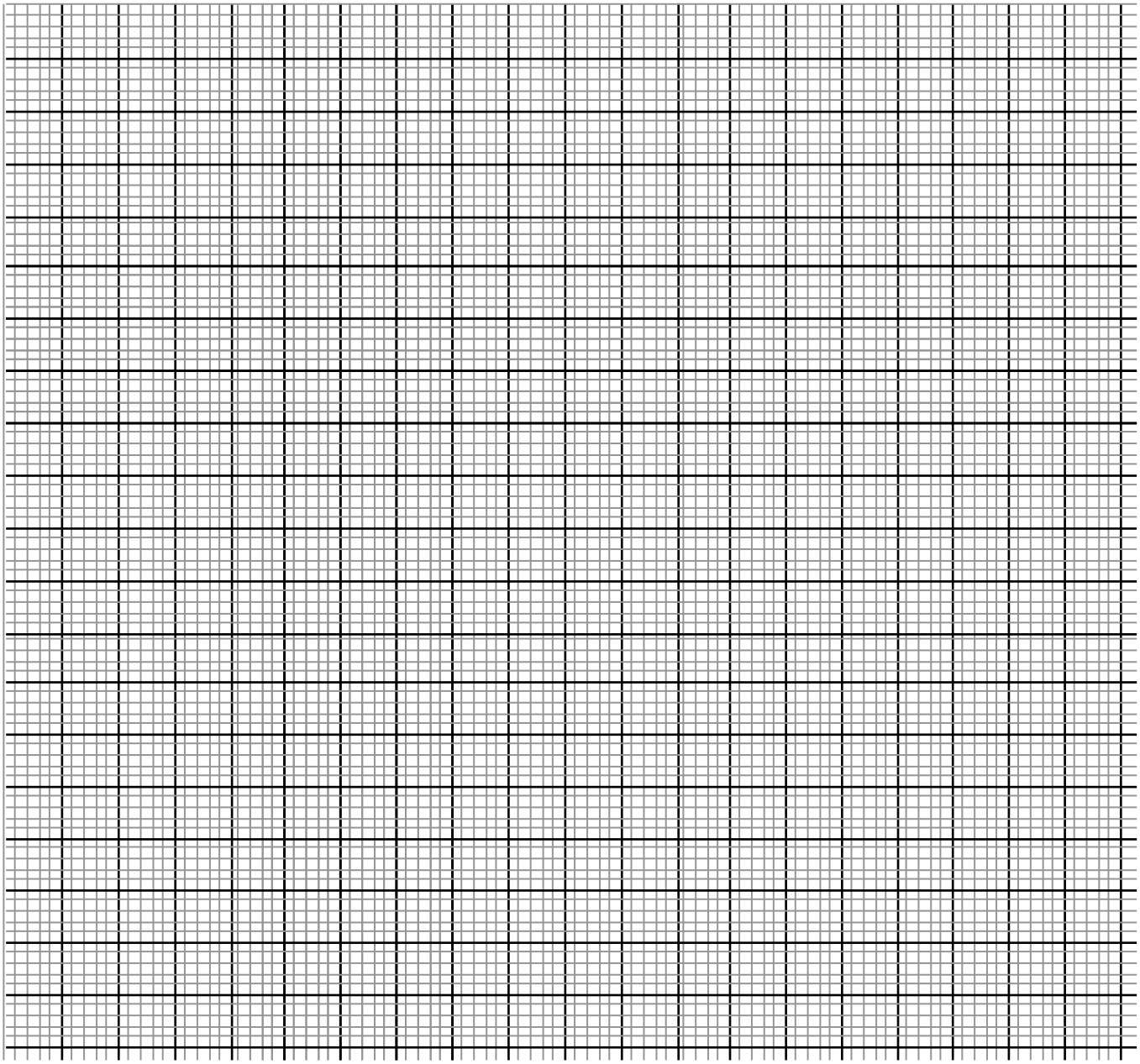
(l) Measure the distance of the emergent ray from point **N** along line **NP** as shown below

(m) Record the corresponding values of d in the table below

(n) Repeat the procedure for other values of i **(12mks)**

Angle of incidence i^o	10	20	30	40	50	60
Distance d(cm)						
Sin i						
Sin ^{2}i						

(o) (i) Plot the graph of sin2i against d **(5mks)**



(ii) Calculate the gradient of the graph

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

CHRISTIAN RELIGIOUS EDUCATION

313/1

PAPER 1

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

313/1

CHRISTIAN RELIGIOUS EDUCATION

PAPER 1

TIME: 2½ HOURS

INSTRUCTIONS TO CANDIDATES

a) *Write your name, school and index number in the spaces provided above.*

b) *Write the date of examination and sign in the spaces provided above.*

c) *This paper consists of **six** questions.*

d) *Answer any **five** questions in the answer booklet provided.*

FOR EXAMINER'S USE ONLY

Question	1	2	3	4	5	6	TOTAL SCORE
Candidates Score							

*Answer any **five** questions*

1 a) From Genesis stories of creation, outline seven teachings about human beings. **7mks**

b) Outline the differences in the two accounts of creation in Genesis 1 and 2. **8mks**

c) How do Christians take care for God's creation today? **5mks**

2 a) Describe how God prepared the Israelites for the making of the covenant at Mt. Sinai (Exodus 19) **7mks**

b) Give four reasons that made the Israelites to break the covenant while at Mt. Sinai (Exodus 32:1-35) **7mks**

c) What do Christians learn about the nature of God from the Exodus? **6mks**

3 a) Explain seven functions of Jerusalem temple. **7mks**

b) Identify six expressions of syncretism in Israel at the time of Prophet Elijah **6mks**

c) State seven qualities of a good leader that modern leaders can learn from King David **7mks**

4 a) Identify five visions of Amos. **5mks**

b) Outline five teaching of prophets Amos on Israel's election. (Amos 9:8-15) **7mks**

c) What evils would Amos condemn if he would come to Kenya today? **8mks**

5 a) State the causes of judgement and punishment on Israel as stated by Jeremiah. **7mks**

b) Explain four differences between the Sinai covenant and the new covenant as foretold by Jeremiah. **8mks**

c) Identify five methods used by Christians to communicate God's message today **5mks**

6 a) Give the Traditional African concept of a community. **8mks**

b) What are the responsibilities of the living towards ancestors in the Traditional African Community? **6mks**

c) Identify the factors that undermine the role of traditional medicine men in modern society **6mks**

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

CHRISTIAN RELIGIOUS EDUCATION

313/2

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

313/2

CHRISTIAN RELIGIOUS EDUCATION

PAPER 2

TIME: 2½ HOURS

INSTRUCTIONS TO CANDIDATES

a) *Write your name, school and index number in the spaces provided above.*

b) *Write the date of examination and sign in the spaces provided above.*

c) *This paper consists of **six** questions.*

d) *Answer any **five** questions in the answer booklet provided.*

FOR EXAMINER'S USE ONLY

Question	1	2	3	4	5	6	TOTAL SCORE
Candidates Score							

*Answer any **five** questions*

1a) What does Mary's song (the Magnificat) reveal about the nature of God. **(7mrks)**

b) Outline six activities that took place when Jesus was born**.** **(6mrks.)**

c) Write down seven ways through which Christians in Kenya express their joy for the birth of Jesus. **(7mrks)**

2a) Giving examples state seven methods used by Jesus to spread the gospel**.** **(7mrks)**

b) What are the Reasons why Jesus chose the twelve disciples**?** **(6mrks)**

c) Identify seven problems faced by new converts in the church today. **(7mrks)**

3a) With reference to the life and ministry of Jesus, show how he tried to promote social equality. **(7mrks)**

b) With the story of the sinful woman as a reference, explain Jesus teachings on forgiveness. **(5mrks)**

c) Give ways in which Christians engage themselves in the healing ministry**.** **(8mrks)**

4a) Give seven reasons why Jesus sent the Holy Spirit to his disciples after ascension **(7mrks)**

b) List seven fruits of the Holy Spirit **(7mrks)**

c) How are the gifts of the Holy Spirit manifested in the church today? **(6mrks)**

5. a) Outline eight Christians teachings on work **(8mks)**

b) Give six factors that cause increased unemployment in Kenya today **(6mrks)**

c) How does the church help to reduce the rate of unemployment in Kenya **(6mrks)**

6 a) Explain how unfair distribution of wealth can lead to social disorder in Kenya today **(6mrks)**

b) Give reasons why Christians should not involve themselves in gambling **(7mrks)**

c) How is corruption affecting the society in Kenya today? **(7mrks)**

FOR MARKING SCHEMES CONTACT 0746-222-000 / 0742-999-000

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

HISTORY AND GOVERNMENT

311/1

PAPER 1

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

- *This paper consists of three sections A,B and C*
- *Answer **All** questions in section A, **three** questions in section B and **two** Questions in section C*
- *Answer to all question must be written in the answer booklet provided*
- *Candidate should answer the questions in English*

FOR EXAMINER USE ONLY

SECTION	QUESTION	MAX SCORE	SCORE
A	1-17	25	
B		15	
		15	
		15	
C		15	
		15	
TOTAL SCORE			

SECTION A

1. Give the meaning of history. **(1mk)**

……

……

2. Identify one age-grade for elders among the Akamba. **(1mk)**

……

3. State the first settlement area of the Luo during their migration fro Sudan. **(1mk)**

……

4. Name one early Christian missionary who worked in Kenya**.** **(1mk)**

……

5. Identify two contributions made by early Christian missionaries in the field of education in Kenya. **(2mks)**

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6. Define the term "National Integration" **(1mk)**

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7. What constitutional amendment made Kenya return to multi-party state**.** **(1mk)**

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8. Give Two reasons why a Kenya citizen should obey the law**.** **(2mks)**

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9. Give two ways in which education has promoted national unity in Kenya**.** **(2mks)**

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10. State two advantages of representative democracy**.** **(2mks)**

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11. Name the First African to be appointed in the council of ministers in Kenya by the colonial government**.** **(1mk)**

……

12. Identify the leader who stepped down as the president of African Union for Jomo Kenyatta**.** **(1mk)**

……

13. State two ways in which the Harambee spirit promote National Unity in Kenya**.** **(2mks)**

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14. State two ways through which the saving and credit cooperative societies in Kenya benefit their members**.** **(2mks)**

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15. State two qualifications that a person must fulfill in order to be allowed to Register as a voter in Kenya**.** **(2mks)**

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16. Name the two branches of National Police Service in Kenya. **(2mks)**

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17. Give the main difference of the commission on Revenue Allocation in Kenya. **(1mk)**

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SECTION B. (45 MARKS)

Answer Three Questions In This Section.

18. (a) Give five reasons, which influenced the migration of the plain Nilotes to Kenya during the Pre-Colonial period. **(5mks)**

(b) Explain five results of the migration and settlement of the Maasai in Kenya during the pre-colonial period. **(10 mks)**

19. (a) State three reason for the coming of the Portuguese to Kenyan Coast in the 15th century. **(3mks)**

(b) Explain six effects of the Portuguese rule on the East African Coast. **(12mks)**

20. (a) Give five grievances of the Kikuyu Central Association which were Presented by Jomo Kenyatta to the colonial secretary in 1929. **(5mks)**

(b) Explain five factors which led to the migration of African to the urban areas in Kenya during the colonial period. **(10mks)**

21.

(a) State three factors that have contributed to high illiteracy levels in Kenya since Independence. **(3mks)**

(b) Discuss six factors that have facilitated industrialization in Kenya since Independence**.(12mks)**

SECTION C

Answer Any Two Questions From This Section.

22.(a) State three circumstances that can make a Kenyan citizen to be denied the right to life**.**

(3mks)

(b) Describe the functions of the Republic of the Kenyan. **(12 mks)**

23.(a) State five ways through which Independence of the Judiciary is guaranteed in Kenya**.**

(5mks)

(b) Explain five functions of the Independent Electoral and Boundaries Commission of Kenya.

(10mks)

24.(a) State three objectives of devolving the government of Kenya**.** **(3mks)**

(b) Explain six functions of the National Assembly in Kenya. **(12mks)**

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

HISTORY AND GOVERNMENT

311/2

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

- *This paper consists of three sections A,B and C*
- *Answer **All** questions in section A, **three** questions in section B and **two** Questions in section C*
- *Answer to all question must be written in the answer booklet provided*
- *Candidate should answer the questions in English*

FOR EXAMINER USE ONLY

SECTION	QUESTION	MAX SCORE	SCORE
A	1-17	25	
B		15	
		15	
		15	
C		15	
		15	
TOTAL SCORE			

SECTION A (25MARKS)

Answer All Questions In This Section

1. List two examples of material remains in an archaeological site. **(2mks)**

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2. What was the name of Charles Darwin's book in which he published his on evolution theory. **(1mks)**

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3. Identify two centers of early Agriculture**.** **(2mks)**

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3. Names two West African Kingdoms that were involved in Trans- Saharan trade. **(2mks)**

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5. State two features of the camel that enables it to be the most suitable animal for transport in arid areas**.** **(2mks)**

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6. State one theory that explains the origin and spread of iron working in Africa**.** **(1mk)**

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7. What was the main discovery William Morton**?** **(1mk)**

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8. Identify two major factors that contributed to the decline of Meroe. **(1mk)**

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9. Which company ruled southern Rhodesia on behalf of the British**?** **(1mk)**

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10. Give the main reason why European powers held the Berlin conference of 1884-1885. **(1mk)**

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11. Identify two positive result of Lewanika's collaboration with the British**.** **2mks)**

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12. State one European nation that was led by a dictator after the First World War**.** **(1mk)**

……

13. Name one member country of the common wealth in Africa which is not a former British colony**.** **(1mk)**

……

14. Identify two military facts formed during cold war**.** **(2mks)**

……

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15. Identify two African delegates who attended the fifth pan African conference in Manchester in 1945**.** **(2mks)**

……

……

16. What was the main reason that led to the army muting in Congo in 1960**.** **(1mk)**

……

……

17. Which is the highest court in India**.** **(1mk)**

……

SECTION B (45 Marks)

Answer any three questions in this section

18a) State three differences between apes and man's ancestors. **(3mks)**

b) Explain the impact of early agriculture on people Way of life**.** **(12mks)**

19.a) Identify three traditional forms communication **(3mks)**

(b) Explain six positive impacts of telecommunications today.

20. State three conditions that an African had to fulfil so as to be assimilated in Senegal. **(3mks)**

b) Explain six effects of direct rule in Zimbabwe. **(12mks)**

21a) Mention three ways in which Julius Nyerere assisted African nationalist in Mozambique in their struggle for independence. **(3mks)**

b)Explain methods used by African nationalists in their struggle against apartheid rule. **(12mks)**

SECTION C (30mks)

Answer Any Two Question in this section

22a) Identify three kinds of spirits in the shone kingdom **(3mks)**

b) Describe the political organization of the Shona in the 19th century **(12mks)**

23a) Mentor three aims of common market for east and southern Africa.(COMESA). **(3mks)**

B) Explain six challenges facing East African community. **(12mks)**

24.A) Identify five source of British constitution. **(5mks)**

b) Explain the functions of the monarchy in Britain. **(10mks)**

25.Identifly five sources of British constitution. **(5mks)**

b) Explain the function of the monarchy in Britain. **(10mks)**

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

GEOGRAPHY

312/1

PAPER 1

TIME: 2¾ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

a) *This paper has **two** sections **A** and **B***

b) *Answer **all** the questions in section **A***

c) *Answer question **6** and any other two questions from section **B***

FOR EXAMINERS USE ONLY

SECTION	QUESTION	CANDIDATE SCORE
A	1-5	
B	6	
	7	
	8	
	9	
	10	
TOTAL		

SECTION A

Answer all the questions in this section.

1.(a) Differentiate between latitudes and longitudes**.** **(2 mks)**

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(b) State **three** reasons why the interior of the earth is very hot. **(3 mks)**

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2. Describe the origin of the continents according to the theory of continental drift **.** **(5mks)**

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3.(a) Name the **three** main stages of the long profile of a river **(3mks)**

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(b) State **three** conditions under which gorges may form **(3mks)**

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4.(a) Give **two** sources of underground water**.** **(2mks)**

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(b) State **three** conditions that favour the formation of artesian wells. **(3mks)**

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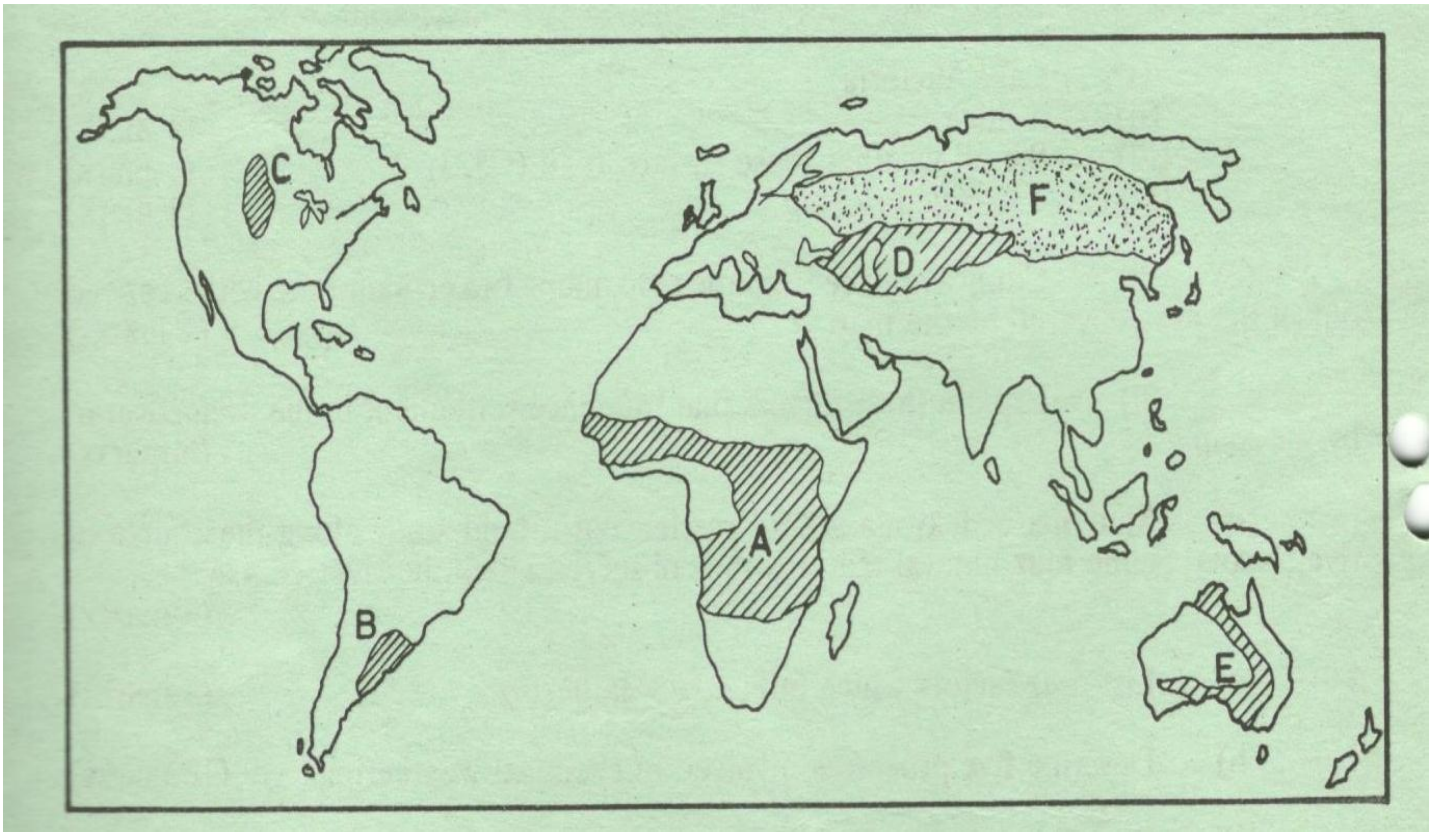
……

5.(a) What is the meaning of the term vegetation**?** **(1 mk)**

……

……

(b) Use the sketch map below to answer the questions that follow



i) Identify the type of vegetation in the shaded region marked **F** **(1 mk)**

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ii) State **two** characteristics of theabove identified vegetation type **(2mks)**

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SECTION B

Answer question six and any other two questions from this section

6. Study the map of **Nyeri 1:50,000** (sheet 120/4) provided and answer the following questions.

(a) (i) Give the ***six figure*** grid reference of the forest Guard Post at grid square 5059. **(2 marks)**

(ii) What is the magnetic variation of the map? **(2 marks)**

(b) (iii) What is the general direction of the flow of river Chanya? **(1 mark)**

(c) (i) Using a vertical scale of ***1cm*** to represents ***50m;*** draw a cross section along Northing 64 from Easting 68 to Easting 78. On it mark and label the following.

- All weather road
- A hill.
- River. **(7 marks)**

(ii) Calculate the vertical exaggeration of the cross section. **(2 marks)**

(iii) Determine the intervisibility of the cross section. **(1 mark)**

(d) Citing evidence from the map, identify ***three*** social services offered in the area covered by the map. **(6 marks)**

(e) Explain ***two*** ways relief has influenced the distribution of settlement in the area covered by the map. **(4 marks)**

FOR MARKING SCHEMES CONTACT 0746-222-000 / 0742-999-000

7. (a) **(i)** Define the term volcanicity. **(2 marks)**

(ii) Name ***two*** active volcanoes in Kenya. **(2 marks)**

(b) **(i)** Differentiate between solfatara and moffete. **(2 marks)**

(ii) Identify ***two*** areas in Kenya where geysers are found. **(2 marks)**

(c)(i) A part from batholiths, name ***three*** features resulting from intrusive vulcanicity. **(3 marks)**

(ii) With the aid of a diagram describe how a batholith is formed. **(6 marks)**

(d) Explain ***four*** negative effects of vulcanicity. **(8 marks)**

7.(a) (i) What is ocean salinity? **(2mks)**

(ii) Give **three** sources of mineral salts in ocean water. **(3mks)**

(b) Explain **three** factors that cause horizontal movement of ocean water. **(6mks)**

(c) Describe how the following are formed

(i) Wave-cut platform. **(4mks)**

(ii) Cuspate foreland. **(5mks)**

(d) You intend to carry out a field study on wave deposition on the coast of Kenya.

(i) Formulate **two** hypotheses for your study. **(2mks)**

(ii) Give **three** reasons why you would need to state objectives for your study. **(3mks)**

8. a) (i) List**four** characteristics of desert soils. **(4 mks)**

(ii) Give **two** factors that contribute to soil leaching. **(2 mks)**

b) Explain how each of the following factors influence the formation of soil

(i) Parent rock **(2 mks)**

(ii) Living organisms **(2 mks)**

(iii) Topography **(2 mks)**

c) Draw a well labelled profile of a mature soil. **(5 mks)**

d) Differentiate between a soil profile and soil catena. **(2 mks)**

e) Explain **three** ways in which human activities contribute to soil erosion. **(6 mks)**

FOR MARKING SCHEMES CONTACT 0746-222-000 / 0742-999-000

9. **(a)(i)** What is a glacier? **(2mks)**

(ii) How is a glacier formed? **(4mks)**

b)(i) Explain **three** processes through which ice moves **(6mks)**

(ii) Describe the formation of a cirque **(3mks)**

c) Describe how the movement of valley glaciers is influenced by the following factors

(i) Temperature **(2marks)**

(ii) Width of glacier channel **(2marks)**

d. You intend to carry out a field study on Mt Kenya

(i) Name **three** types of moraines you are likely to identify **(3mks)**

(ii) State **three** problems you are likely to encounter **(3mks)**

10.a) (i) Define the following features

- Erg **(1 mk)**
- Hamada **(1 mk)**
- Reg **(1 mk)**

(ii) State **two** factors that contribute to the development of hot desert. **(2 mks**)

b) With the aid of well labeled diagrams explain how a rock pedestal is formed. **(8mks)**

c) Explain **three** factors that influence wind transportation in a desert. **(6 mks)**

d) You are required to carry out a field study of an arid area in Kenya.

(i) Formulate **two** objectives for the study findings. **(2mks)**

(ii) State **two** measures the government would put in place to curb desertification in Kenya. **(2mks)**

(iii) Name any **two** features resulting from action of water in desert areas. **(2mks)**

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

GEOGRAPHY

312/2

PAPER 2

TIME: 2¾ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES.

a) *This paper has two Sections;* ***A*** *and* ***B****.*

b) *Answer* ***all*** *the questions in Section* ***A****.*

c) *Answer question****6*** *and any other* ***two*** *questions from section* ***B.***

FOR EXAMINER'S USE

Section	Question	Maximum score	Candidate score
A	1 -5	25	
B	6	25	
	7	25	
	8	25	
	9	25	
	10	25	
		100	

SECTION A

*Answer **all** the questions in this section*

1 a) State **three** factors that contribute to growth of slums in urban centers. **(3mk)**

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b) List **two** types of settlement patterns in Kenya. **(2mk)**

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2a) State **three** physical conditions that favour growing of maize in Kenya**.** **(3mk)**

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b) Give **two** problems facing maize farming in Kenya. **(2mk)**

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3a) What is air pollution**?** **(2mk)**

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b) State **three** ways that Kenya has adopted to manage air pollution. **(3mk)**

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4a) Differentiate between a national park and a game reserve. **(2mk)**

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b) State **three** effects of human encroachment into wildlife habitats**.** **(3mk)**

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5 a) Name **two** places where diamond mining is done in South Africa. **(2mk)**

……

……

b) State **three** problems facing gold mining in South Africa. **(3mk)**

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SECTION B

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

6 a) The photograph below shows a crop cultivated under horticultural farming.



a i) identify the type of photograph shown above. **(1mk)**

ii) Using evidence from the photograph, identify **two** indicators that show the area receive high rainfall**.** **(2mk)**

iii) Draw a rectangle measuring 15 cm by 10 cm and on it sketch and show the main features. **(4mk)**

b) State **four** reasons why growing of vegetables in green houses in Kenya would be preferred. **(4mk)**

c) Explain **four** difficulties that the Kenyan farmer face in marketing horticultural produce. **(8mks)**

d) Explain **three** similarities between horticultural farming in Kenya and Netherlands. **(6mk)**

7a) Differentiate between pelagic fishing and demersal fishing. **(2mk)**

b) State **four** reasons why marine fisheries are not well developed in Kenya. **(4mk)**

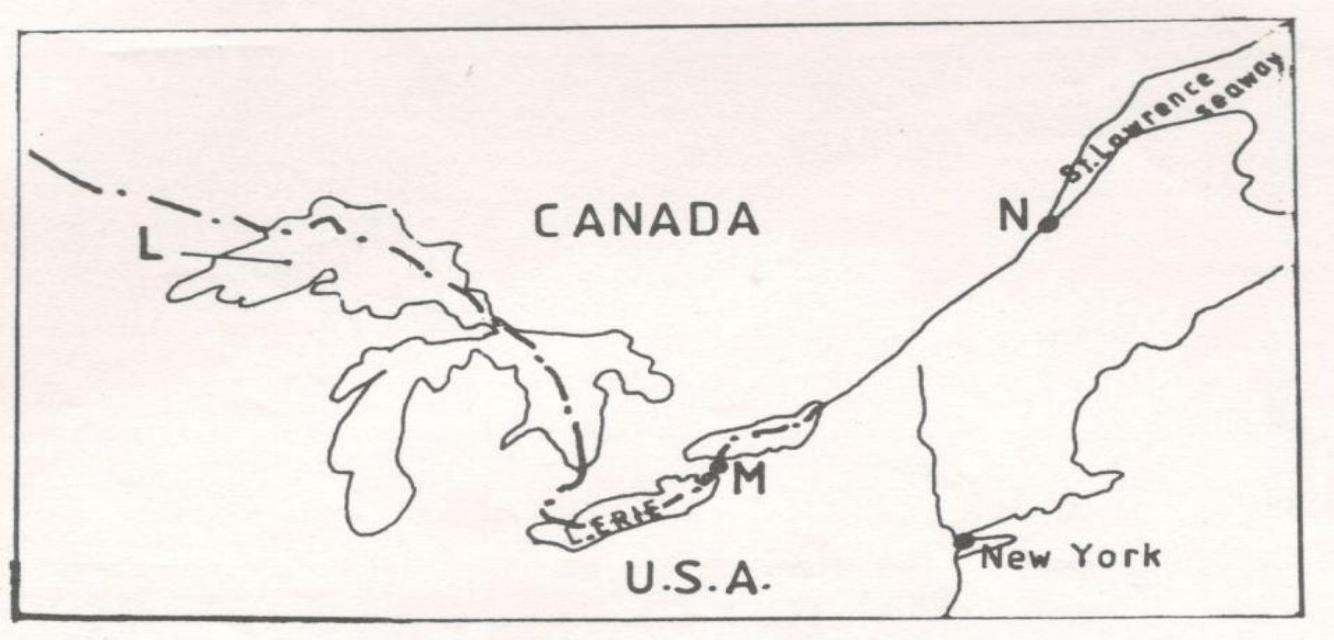
c i) Explain **three** reasons why Lake Victoria is a major fishing ground in Kenya**.** **(6mk)**

ii) Give **five** ways in which fresh water fisheries in Kenya can be conserved. **(5mk)**

d) Explain **four**differences between fishing in Kenya and Japan. **(8mk)**

FOR MARKING SCHEMES CONTACT 0746-222-000 / 0742-999-000

8 The sketch map below shows the Great Lakes and the St. Lawrence sea way. Use it to answer question



a) i) Name the lake marked **L.** **(1mk)**

ii) Name the waterfall marked **M.** **(1mk)**

iii) Name the sea port marked **N**. **(1mk)**

b) i) List **three** objectives that led to the construction of the St. Lawrence sea way. **(3mk)**

ii) Explain **four** ways in which the St. Lawrence Sea way has benefited the economies of Canada and the USA**.** **(8mk)**

c) State **three**causes of the decline in use of letters as a mean of communication in Kenya. **(3mk)**

d)Explain **four**efforts made by the Government of Kenya to solve the problems facing communication in the country. **(8mk)**

9 a i) Name **two** places in Kenya where wind energy is being harnessed. **(2mk)**

ii) Give **four** reasons why Kenya has not been able to fully exploit her geothermal power potential. **(4mk)**

b) Explain **four** benefits that would result from rural electrification in Kenya**.** **(8mk)**

c) Apart from petroleum oil, name **three** other sources of non -renewable energy**.** **(3mk)**

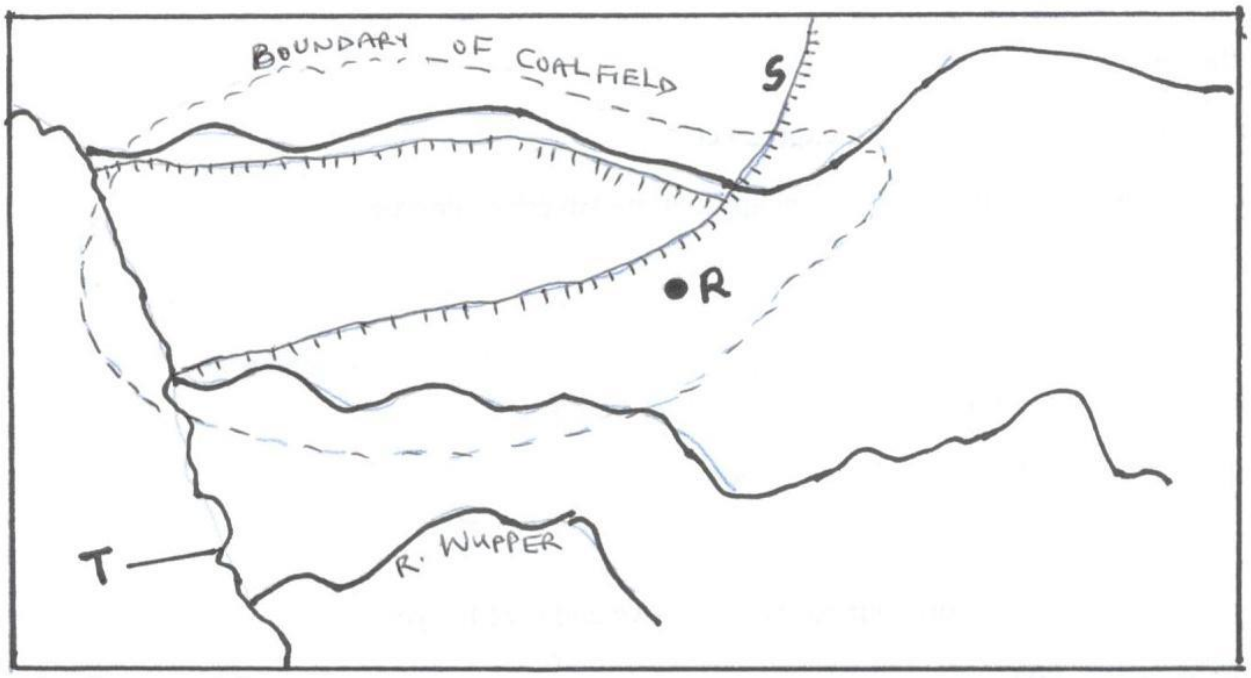
d) i) What is energy crisis**.** **(2mk)**

ii) Explain **three** effects that the increase in petroleum oil prices has had on the economy of Kenya. **(6mk)**

10. ai) Name **two** towns in Kenya with motor vehicle assemblyindustries**.** **(2mks)**

ii) State **four** ways in which Kenya has benefited from the motor vehicle assembly industries. **(4mk)**

b) The sketch map below shows the Ruhr Industrial region of Germany.



i) Name the town marked **R**. **(1mk)**

ii) Name the canal marked **S.** **(1mk)**

iii) Name the river marked **T.** **(1mk)**

c) Explain **four** factors that have led to the growth of the iron and steel industries in the Ruhr region of Germany. **(8mk)**

d) Your class has decided to undertake a field study in a factory near your school.

i) Give **three** reasons why it is important to seek permission from the school**.** **(3mk)**

ii) State **two** reasons why administering questionnaires may not be an appropriate method to collect data. **(2mk)**

iii) State **three** advantages of using statistical tables to record data. **(3mk)**

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

AGRICULTURE

443/1

PAPER 1

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTION TO CANDIDATES

a) *This paper consists of **THREE** sections: **A, B** and **C**.*

b) *Answer **ALL** questions in section **A**.and **B***

c) ***ANY** Two questions from section **C**.*

SECTION	MARKS	CAND. SCORE
A	30	
B	20	
C	40	
TOTAL SCORE	**90**	

SECTION A (30MKS)

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

1. Give **two** characteristics of plantation farming. **(1mk)**

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2. Name **two** chemical processes of weathering. **(1mk)**

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3. State **two** advantages of organic farming. **(1mk)**

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4. Outline **two** effects of soil organisms which benefit plant growth. **(1mk)**

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5. Give **two** ways in which organic mulch help to conserve water in the soil. **(1mk)**

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6. Give **two** types of labour records. **(1mk)**

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7. Outline **four** ways in which land consolidation helps to improve farm management. **(2mks)**

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8. State **four** importance of raising seedlings in a nursery bed. **(2mks)**

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9. Give **four** ways of controlling weeds in a field of maize. **(2mks)**

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10. State **three** reasons for top dressing pasture. **($1^1/_2$mks)**

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11. Give **four** reasons for training crops as a field practice **. (2mks)**

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12. State **three** activities the farmer carries out on a store before storing grains. **(1½mks)**

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13. Give **four** desirable characteristics of certified seeds. **(2mks)**

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14. (a) Outline **two** characteristics of nitrogenous fertilizers. **(1mk)**

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(b) Give the forms in which the following elements are available to plants: **(1mk)**

(i) Phosphorous: **…….**

(ii) Potassium: **……**

15. Give **four** factors that influence the choice of tools and equipment used in Primary cultivation.

(2mks)

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16. State **four** factors that contribute to competitive ability of weeds. **(2mks)**

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17. Define the following terms as used in crop production.

(a) Trelishing **(1mk)**

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(b) Stooking **(1mk)**

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18. Give **two** advantages of strip grazing **(1mk)**

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19. State **four** advantages of mixed pasture. **(2mks)**

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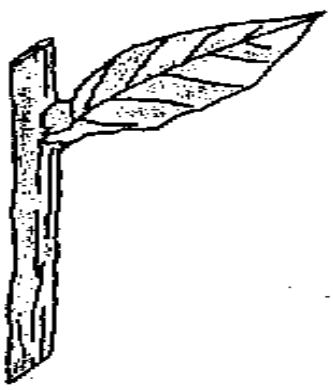
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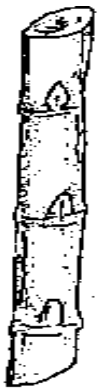
SECTION B. (20 MARKS)

Answer ALL questions in this section in the spaces provided

20. Study the diagram below and answer the questions that follow. The illustrations represent a method of crop propagation.



A



B

(a) Name the crops (s) propagated by illustrations: **(1mrk)**

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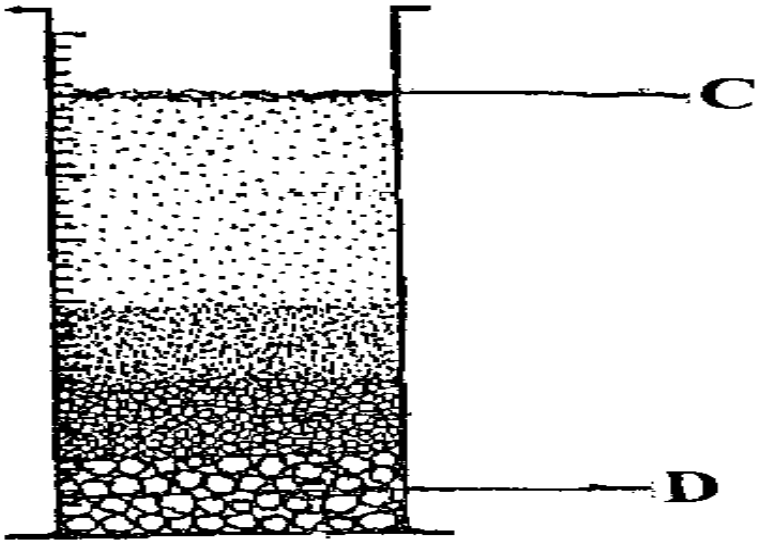
(c) Give **three** factors that promote the rooting of illustration **A.** **(3mrks)**

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21. The diagram below illustrates an experiment using garden soil. Study it carefully and answer the question that follow.



(a) What was the aim of the experiment? **(1mrk)**

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(b) Name the parts labeled **C** and **D.** **(2mrks)**

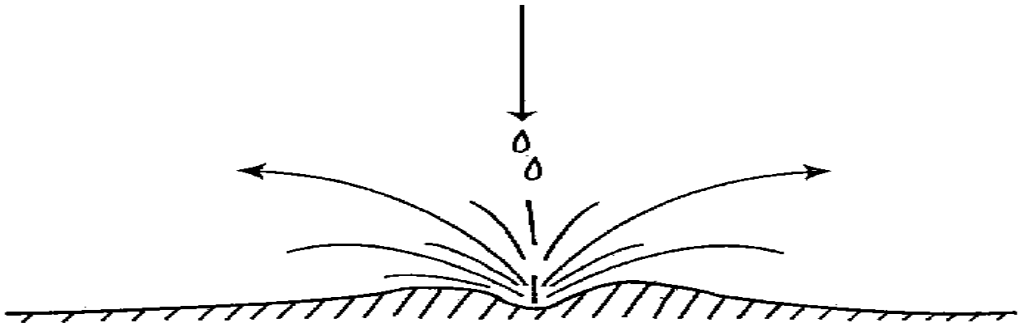
C……

D……

(c) Name the property of soil being investigated. **(1mrk)**

……

22. The illustration below shows a type of soil erosion. Study it carefully and answer the questions that follow.



(a) Identify the type of erosion illustrated. **(1mrk)**

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(b) Give **two** soil factors that influence the rate of soil erosion. **(2mrks)**

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(c) Name **one** agent of soil erosion. **(1mrk)**

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23. The diagram below illustrate a method of irrigation carried out on the farm



(i) Identify the type of irrigation shown above. **(1mk)**

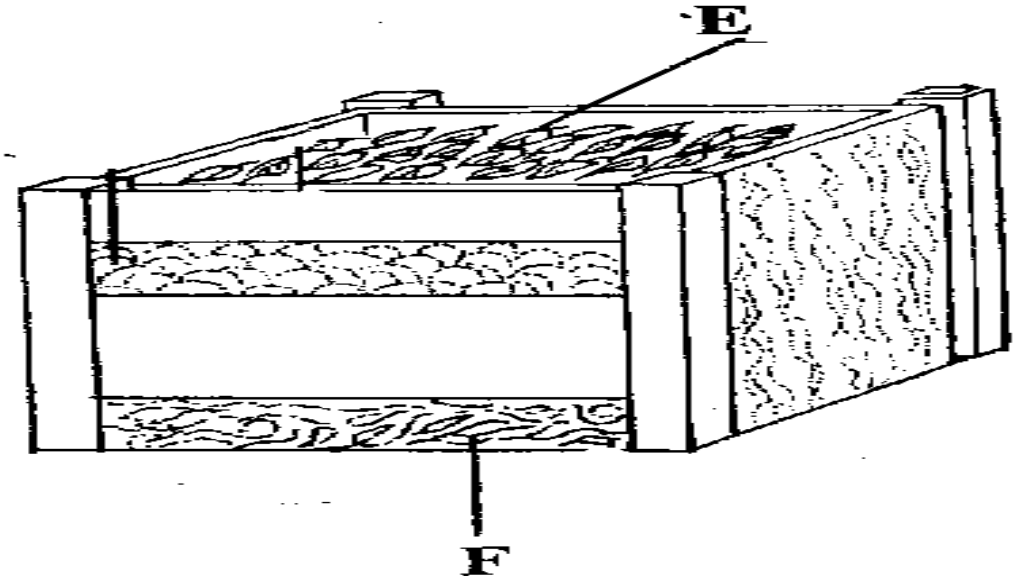
……

(ii) Name **two** advantages of the above method. **(2mks)**

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24. The diagram below represent a method of manure preparation. Study it carefully and answer the questions that follow.



(a) Identify the type of manure being prepared. **(1mrk)**

……

(b) Name the parts labeled **E** and **F.** **(1mrk)** .

E……

F……

(c) Give **three** disadvantages of manures. **(3mrks)**

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SECTION C (40MARKS)

Answer any TWO question from the section in the spaces provided

25.(a) Give six precautions observed in pruning mature tea **(6 mks)**

(b) Describe the procedure followed when collecting a soil sample form the field for testing in the laboratory **(6 mks)**

(c) Outline four advantages of intercropping crops **(4 mks)**

(d) State **four** factors considered before selecting a farm enterprise. **(4 mks)**

26. Describe the production of **tomatoes** under the following sub-headings:

i) Ecological requirements of tomato plants **(5mks)**

ii) Land preparations **(4mks)**

iii) Transplanting **(7mks)**

iv) Disease control **(4mks)**

27. a) State five factors that influence soil productivity. **(5mks)**

b) State five qualities of mother plant used during grafting. **(5mks)**

c) Give two types of mulching materials. **(2mks)**

d) State four agricultural practices which pollute water. **(4mks)**

e) Describe precautions followed when harvesting coffee. **(4mks)**

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

AGRICULTURE

443/2

PAPER 2

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTION TO CANDIDATES

1. *This paper consist of three section A,B and C.*
2. *Answer ALL questions n section A and B.*
3. *Answer any TW questions in section C.*
4. *Answers should in spaces provided*

FOR EXAMINERS USE ONLY

SECTION	QUESTION	MAX.SCORE	CANDIDATE SCORE
A	1-17	30	
B	17-21	20	
C		20	
		20	
TOTAL SCORE		90	

SECTION A (40 MARKS)

Answer All Questions in This Section

1. Name **four** notifiable diseases of cattle **(2mks)**

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2. Outline **four** qualities of eggs for incubation **(2mks)**

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3. State the ingredients required in preparation of artificial colostrum **(2mks)**

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4. Give **two** symptoms of bloat **(2mks)**

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5. Give **two** light breeds of poultry **(1mk)**

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6. Name **two** characterstics that make indigenous cattle better suited to marginal areas than exotic cattle **(2mks)**

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7. State four signs of heaf in pigs **(2mks)**

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8. Give two reasons for seasoning timber before it is used for construction **(2mks)**

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9. State four reasons for dehorning cattle **(2mks)**

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10. Differentiate between pin mating and flock mating in poultry **(2mks)**

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11. Give four reasons why it is important to maintain farm tools and equipment **(2mks)**

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12. State two reasons why hoof trimming is carried out in sheep **(1mk)**

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13. Give **four** factors that affect the digestibility of a feed **(2mks)**

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14. Name **two** livestock diseases controlled through artificial insermination **(1mk)**

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15. Give the uses of each of the following workshop tools **(2mks)**

(i) Centre punch

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(ii) Bastard file

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16. State two factors that lower the quality of concrete **(1mk)**

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17. Outline four factors that determine the national requirement of an animal **(2mks)**

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SECTION B (20 MARKS)

Answer All Questions In This Section In The Spaces Provided

18. Below is a diagram of an implement used for primary cultivation .Study if carefully and answer question **18(a)** and **(b)**

Dia

(a) Identify the implements represented above

.....

(b) Name the parts labelled E, F, G and H **(2mks)**

E.....

F.....

G.....

H.....

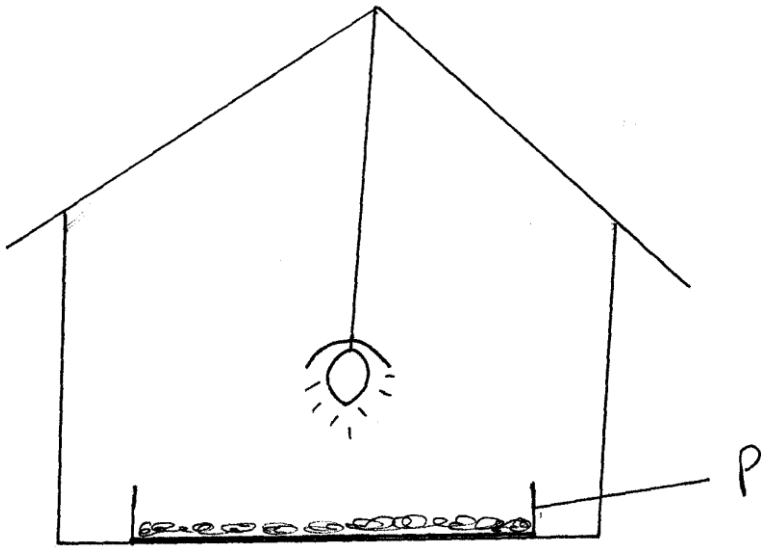
(c) State two ways in which the depth of ploughing can be increased when using the above implement **(2mks)**

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19. Below is a diagram of a cross-section of a poultry house showing a set –up of a brooder study it carefully and then answer question 19(a)



(a) What is the purpose of the part labelled P **(2mks)**

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(b) Name any material that would be suitable for use as litter in this brooder **(1mk)**

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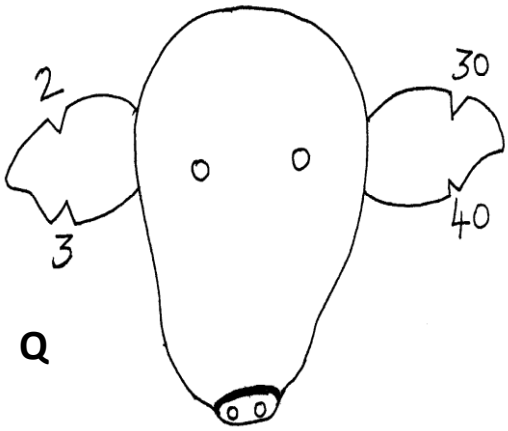
(c) State two observations that would be made on the behaviour of chicks to determine when the temperature in the brooder is too high for the chicks **(2mks)**

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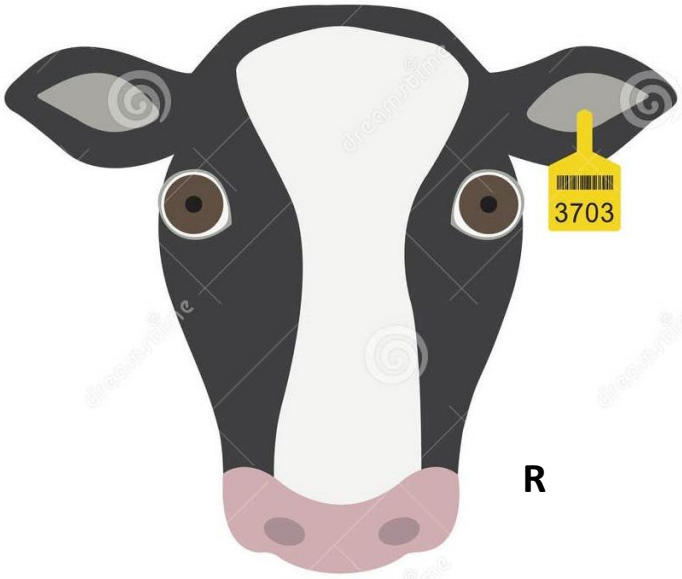
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20. Diagram Q and R below illustrate a practise carried out on livestock .Study diagrams and answer the questions that follow.



Q



R

(a) State the practice in Q and R **(1mk)**

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(b) Name the methods carried out in Q and R.

Q ..... **(1mk)**

R ..... **(1mk)**

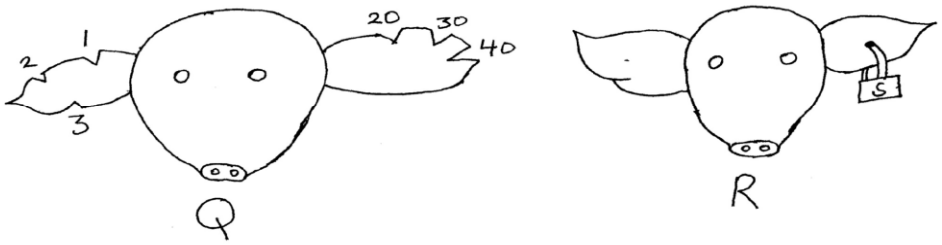
(c) State one advantage of practice **R** over **Q** **(1mk)**

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(d) Using method Q draw the animal whose number b 75

21. The diagram below presents an external parasite. Study it carefully and answer question that follows



(a) Identify the parasite **(1mk)**

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(b) State two effects of parasite of parasite shown on livestock **(2mks)**

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(c) Give two control measures for the parasite illustrated above **(2mks)**

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SECTION C (40MARKS)

Answer Any Two Questions From This Section In The Spaces Provided After Questions 24.

22.(a) Describe the life cycle of beef tape worm (taenia saginata) **(10mks)**

(b) Describe the disease foot and mouth disease under the following sub-headings

(i) Causal agent **(1mk)**

(ii) Pre-disposing factors **(2mks)**

(iii) Symptoms **(4mks)**

(iv) Control measures **(3mks)**

23. (a) Describe factors to consider when planning the layout of a mixed farm **(12mks)**

(i) Milk secretion **(4mks)**

(ii) Milk let down **(4mks)**

24. (a) Describe the preparation you would make before the arrival of day old chicks and their care for the finish one week **(12mks)**

(b) Describe the daily maintenance and servicing of a tractor before use **(8mks)**

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

BUSINESS STUDIES

565/1

PAPER 1

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

565/1

BUSINESS STUDIES

PAPER 1

TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES

- *Answer all the question in section A.*

FOR OFFICIAL USE ONLY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Marks Scored														

Question	15	16	17	18	19	20	21	22	23	24	25
Marks Scored											

QUESTIONS

1. State four ways in which knowledge of business studies would benefit a secondary school leaver.

(4mks)

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2. Give four reasons why one would prefer a partnership instead of a sole proprietorship? **(4mks)**

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3. Identify (by √) whether the following factors form the external or internal environment**. (4mks)**

Factors	External	Internal
a) Recruitment of workers b) Political stability c) Development of infrastructure d) Purchase of modern equipment		

4. State four characteristics of economic resources. **(4mks)**

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5. Highlight four roles of warehousing in promotion of trade. **(4mks)**

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6. Highlight four circumstances under which an insurance contract can be terminated. **(4mks)**

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7. Outline four reasons why government of Kenya preferred to privatize state owned business enterprises. **(4mks)**

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8. State the books of original entry in which each of the following transactions would be recorded.

Transactions	**Book of original entry**
a) Sold machine on credit **b)** Received sh 40,000 cash from Mutua a debtor. **c)** Sold goods worth sh 20,000 on credit to jirani stores. **d)** Returned goods previously bought to rajab traders.	

9. State four advantages of using m-pesa account to an individual. **(4mks)**

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10. Outline four steps involved in personal selling. **(4mks)**

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11. Highlight four challenges that may be encountered by using a long channel to distribute farm produce. **(4mks)**

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12. State four business documents to which each of the following relates.

Statement	Document
(a) Informs the buyers when goods were dispatched. (b) A request by seller for payment in advance (c) Used to correct undercharge in an invoice (d) Show details of transaction between sellers and buyers.	

13. State four circumstances which a firm may choose to operate on small scale basis. **(4mks)**

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14. The following information was extracted from the books of Juma stores on 31st march 2010

		Sh
Stock 1st april 2010		8000
Stock 31st march 2011		9000
Purchases	4500	
Sales		21000

Calculate

i. Margin **(2mks)**

ii. Rate of stock turnover. **(2mks)**

15. Outline four causes of demand pull inflation. **(4mks)**

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16. The following balances were extracted from books of Rapu merchants for the year ended 31st Dec 2006.

	Sh
Land	110,000
Debtors	64,000
Capital	166,100
Sales	95,000
Purchases	58,000
Stock	35,000
Creditors	47,700
General expenses	41,800

Prepare a trial balance as at 31st Dec 2016 **(4mks)**

17. Highlight four negative implication of rapidly growing population in a country **(4mks)**

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18. Mention four circumstances under which a producer will find it necessary to transport goods by train. **(4mks)**

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19. State four features of oligopoly market. **(4mks)**

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20. In the spaces provided write decrease, increase or no effect to show the effects of each one of the following transactions on assets, liabilities or capital.

Transaction	Asset	liabilities	capital
(a) Bought furniture on credit (b) Paid creditors by cash (c) Withdrew goods for personal use (d) Converted personal van for business use.			

21. Give four reasons why a manufacturer may offer after sale services to his customers. **(4mks)**

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22. Outline four features of capital as a factor of production. **(4mks)**

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23. State four characteristics of direct production. **(4mks)**

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24. Identify the office equipment that is used in each of the purposes. **(4mks)**

(a) Printing postage impressions on envelope …….

(b) Preparing cash receipts……

(c) Cutting unwanted documents into tiny pieces……

(d) Pinning papers together……

25. Give four circumstances under which a person could use signals to communicate with another. **(4mks)**

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KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

BUSINESS STUDIES

565/2

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

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) *This paper consists of **6** questions.*

(d) *Answer ANY FIVE questions in the spaces provided*

FOR TEACHER'S USE ONLY

Question	Maximum Score	Candidate's Score
	20	
	20	
	20	
	20	
	20	
	Total Score	

Answer ANY FIVE questions in the spaces provided

1. a) Explain five functions of money **(10mks)**

b) Differentiate between a public limited company and a partnership **(10mks)**

2. a) Explain five principles that guide the tax system in a country **(10mks)**

b) Labour is one of the basic factors of production. Outline five measures that a business can take to increase the productivity of its labour force **(10mks)**

3. a) With the aid of a diagram, explain the effects of an increase in supply on equilibrium price and quantity of a commodity **(10mks)**

b) Discuss five causes of unfavourable balance of payment for most developing countries **(10mks)**

4. a) Explain five factors that influence the choice of a channel for distributing flowers **(10mks)**

b) Explain five circumstances that would influence a producer to use wholesalers in distributing farm produce **(10mks)**

5. a) The following balances relate to Msafiri traders as at 31st December 2014

	Sh	
Purchases	900,000	
Stock 1.1.2014		230,000
Buildings	1,200,000	
Motor vehicles		750,000
Returns outwards	50,000	
Debtors		190,000
Creditors	310,000	
Loan from IDB		600,000
Cash		130,000
Bank		270,000
Drawings	100,000	
Capital		1,840,000
Net profit	170,000	

Additional information

i) Stock 31/12/14 280,000

ii) Expenses (including carriage inwards Shs. 150,000) 250,000

Required

a) Balance sheet as at 31st December 2014 **(6mks)**

b) Calculate

i) Mark-up percentage **(5mks)**

ii) Return on capital employed **(2mks)**

b) Explain five problems associated with a sole proprietorship form of a business **(10mks)**

6.a) Businesses are adopting new technology in their operations. Explain five limitations of adoption of this practice **(10mks)**

b) The following balance sheet was extracted from the books of Sagana traders on 1st April 2015

Sagana Traders

Balance sheet

As at 1st April 2015

	Sh		Sh.
Equipment	200,000	Capital	415,000
Furniture	82,000	Mutai (creditor)	27,000
Stock	140,000		
Cash	20,000		
	442,000		442,000

The following transactions took place during the month of April 2015

4th April: Sagan traders sold her personal assets for sh. 30,000 receiving payment by cheque which she invested in the business

10th: She purchased goods for sh. 29, 000 on credit from Mutai

19th April: She returned goods worth sh. 3,000 to Mutai after they were found defective.

Required

a) Open the ledger accounts record the above transactions and balance them off.

(b) Extract a trial balance **(10mks)**

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

ENGLISH

(Functional Writing, Cloze Test, Oral Skills)

101/1
PAPER 1
TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

1) *Write your **Name, Admission number** and **Class** in the spaces provided above.*
2) ***Sign** and write the **date** of examination in the spaces provided above.*
3) *Answer **all** questions in this question paper.*

FOR EXAMINER'S USE ONLY:

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1	**20**	
2	**10**	
3	**30**	
TOTAL SCORE	**60**	

1. FUNCTIONAL WRITING (20 MARKS)

You are going to the Masai Mara on a three day trip.

a) Write **a shopping list** of the items that you will require. **(8marks)**

b) Prepare **a journal** you kept for the three days you were there. **(12marks)**

2. CLOZE TEST (10 marks)

Read the passage below and fill in each blank space with the most appropriate word

Tourism is one of the jewels in Kenya's economic crown, contributing ……. the economy as it is one of the top three income generating sectors that contribute immensely to the GDP. It has ……..since before independence owing to the unique attractions our country ……visitors. But it is also the most vulnerable to disruption. Just one or two …… advisories can wipe out millions ……..dollars in revenue for industry players and this just …….. of a perception that visitors are not safe.

This is the reality that our election managers, our security forces, our media and all of ……. should endevour to forestall. We cannot afford to play dice with our economic lifeline. And we cannot let a basic,regular and too often repeated civic ……like a general election deprive us of our livelihoods, if not our lives. Elections ……and go. They should afford us an opportunity for renewal and not plunge us into a fear that we spread to visitors from afar.

3. ORAL SKILLS (30mks)

ORAL NARRATIVE

People Should Mind Their Own Business

There was once a man who was a trapper and he used to set his traps and catch birds and small animals in the forest. Now, this man had a wife. And every day, he set out to go to the forest. Whenever he caught something, like a guinea fowl, he would go and sell part of what he had caught and other part he would take home to eat. With the money he got from selling some of the creatures he caught, he bought rice for himself and his wife to eat.

As time passed, he began to trap some really big animals and birds. He would slaughter them and, as usual, take some of the meat to the market to sell and the rest

to his house to eat. He always bought rice for their food. One day he caught a number of rabbits. He slaughtered them and sold some of the meat.

But the trapper's wife never found the liver in any meat of which he brought home. This is because the trapper had made a pact with a beast of the forest: 'You do the trapping and catching…me, I will keep an eye on your trap here and whatever you trap, what is inside is for me and the flesh is for you.'

So the wife never found the liver and began to wonder. She said to the trapper, "What kind of husband are you, then? Every day you bring me game meat and what do you do with the livers of all these

animals?" He answered her,"My wife, one shouldn't get involved in other people's affairs; one should mind one's own business. Be content with what I bring you and don't go around asking unnecessary questions." But the woman wouldn't listen. She said to herself, "I'll follow him."

So, one day the man went out and set his trap. He had set his trap out there and the woman didn't know where the trap was. She came walking, *kwah-kwah-kwah!* and the lion was there, the one which had made a pact with the man that whatever was caught, the tripe or innards would be for it and the flesh for the man. Anyway, here was the woman, walking, walking and walking, and then, all of a sudden, *huruuuu-kwi!* The trap caught her. There she was, held up by the head, her legs dangling down.

Now, her husband was coming along, far behind her. "Oh,oh, my friend!" exclaimed the lion when it saw him arrive, "Today we've caught a really big animal! We always catch small animals but today we've got the real one, the two-legged one!"

"Oh, no!" said the man, "Don't say that. This is my wife." "No, no, no," said the lion, "I am not going to have any of that. We've agreed that of whatever comes here, what is in the stomach is mine and the flesh is yours. I can't allow you to back out now."

The Hare was passing by and the man called him. "Hey, Hare, come and help us to settle this." The Hare came and asked the woman, "Now, how did you get up there?" "Well, I was passing here like this, just passing like this and…"

"Wait a minute," said the Hare. "Let's set her free first, so that she can show us, this woman, how she got caught up in the trap."

So, they left the woman off the trap and the Hare set it exactly as it had been before she got caught in it. Then he said to the Lion, "Maybe you can show us how this woman got caught in the trap."

The Lion said, "Sure. She came walking like this, like this and like this and then stepped on the trap and then it went *huruuuu-kwi*and caught her. Hey, look here my friend," said the Lion, "Set me free at once."

The Hare laughed and said, "No way!" then he turned to the woman and said, "Now you, make yourself scarce at once!" the woman turned and ran all the way home without even looking back once.

Later, when the trapper came home, he said to his wife, "That was a narrow escape, wasn't it? Your inquisitiveness and suspicion nearly got you into trouble."

Well, that's it. It isn't me who made up the stories; it's the people of long ago.

Translated and adapted from: N. Gueunier. ***Si Mimi MwongoWatuwaZamani. Zanzibar: EACROTANAL, 1980.***

i) What techniques will the narrator use to capture and maintain the audience attention? **(2 marks)**

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ii) If you were part of the audience for this story, explain two things you would do to show that you are participating in the performance **(2 marks)**

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iii) Identify and illustrate two sound devices that have been used in this story. **(2 marks)**

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b) Give a word that is pronounced the same as the following **(2marks)**

i. bark

ii. dough

c) Study the genre below and answer the questions that follow

Gregory and Grace grew glassy grapes and grimy garlic gladly.

i. Classify the genre above **(1mark)**

ii. Give two functions of the genre above **(2 marks)**

iii. Identify one sound device used in the genre **(1 mark)**

d) Imagine you are a speaker at a youth rally. Identify four speech enhancing cues you would employ and explain how it would make the speech more effective **(4 marks)**

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e) Imagine you are going to take part in the debate in your school. Explain what you would do as preparation and what you would do during presentation to convince your audience. **(4 marks)**

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f) Underline the part (syllable) where the stress falls in the following words. (4 marks)

i. Exaggerate

ii. Amalgamate

iii. Amaze

iv. Forgive

g) Consider the following group discussion and answer the questions that follow.

Chairperson: Our teacher has asked us to discuss the importance of poetry. As the chairperson, I should begin by giving my observations about it. I find poetry exciting and I have even tried to compare some……

Tony: We need to report back……..

Chairperson: I will do the reporting

Jane: But Mr. Chairperson, can you chair and record what we are going to say at the same time? And is it proper?

George: I don't even know why people write poetry anyway. Why can't they write in a straightforward way?

Tamara: for me, a poem tries to capture a moment of human feelings that are universal in significance and as readers……...……..

Chairperson: You didn't allow me to finish. As I was saying

Mandy: But have we resolved the question of procedure?

Chairperson: I give up. Somebody else can chair and report to the rest of the class.

i) Identify the limitations both in the chairing and participation. **(6 marks)**

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KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

ENGLISH

(Comprehension, Literary Appreciation and Grammar)

101/2

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

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) *Answer **all** the questions in this paper.*

d) *All your answers **must** be written in the **spaces provided** in the question paper.*

FOR EXAMINER'S USE ONLY

QUESTION	MAX SCORE	SCORE
1	20	
2	25	
3	20	
4	15	
TOTAL SCORE	80	

1. COMPREHENSION: (20MKS)

Read the following passage and then answer the questions that follow:

There is nothing as important as a pregnant woman getting all the emotional support she can get during pregnancy. It makes her appreciate the pregnancy and in turn care of it well, says Dr. Maxwell Okonji.

The doctor talked to Pregnant Magazine on how you can use your **mental muscle** to handle any pregnancy **misgivings**.

"Once you discover that you are pregnant, you need to be optimistic", says Dr. Okonji. Positive handling of a pregnancy is one of the surest ways of carrying it to term, minus health complications. He adds: "Stress and worry, which are bound to accompany the numerous emotional and physical changes that come along with pregnancy, can lead to depression".

Depression, particularly during pregnancy, often **drains** your energy, which can prevent you from seeking appropriate prenatal care. Depressed pregnant women are more likely to abuse alcohol or drugs during the term. When it is most severe, depression can lead to self harm and even suicide. Are you depressed?

Persistent feelings of sadness, self-pity and hopelessness during the pregnancy are common. The feeling could be accompanied by difficulty in sleeping or oversleeping, weight loss or change in appetite, irritability or mood swings; difficulty in concentration, characteristic or bizarre behaviour, and thoughts of self-harm.

You may notice that you have become unusually hostile and fight with your spouse often with no prompt.

Feeling as though you could do without the pregnancy at that time and that it is the reason that is constantly making you **angry**.

Having a mental condition; before pregnancy, make depression more likely during pregnancy. Again, if during a previous pregnancy – a woman showed signs of depression, chances are that when she falls pregnant again, it will recur.

In cases where depression is severe with prompting to suicide, termination of the pregnancy may be called for. This is purely on medical grounds. This usually happens during the first three months. Termination should, however, be a last resort, after other modes of treatment have failed.

In the first three months of pregnancy, it is not unusual for a pregnant woman to have to experience nausea and vomiting.

These are very frustrating to the mother, particularly if it's a first pregnancy. During this time, it is normal to have mood changes like touchiness and irritability overfriendliness to certain people and nastiness to others is a normal occurrence. This happens to a varying extent and not to all women.

After the third month or so, those early signs of pregnancy and the mood changes disappear. The middle trimester, from four to six months, is a stable time for most women, with little or no problems during that time. The second and third trimester present more mood changes as the mother begins to feel the baby and in turn prepares to receive her. Mood changes are quite normal and do not pose any threat to the pregnancy however, in case you as a woman notice that the moods border on the extreme, then it is recommended that you talk to a counselor.

Adapted from, Lifestyle Sunday Nation, 13th November 2011

QUESTIONS

(a) According to the author what are the most essential things to a pregnant woman? **(2mks)**

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(c) In note form, what are the consequences of depression to a pregnant woman? **(5mks)**

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(c) How will a pregnant woman know that she is depressed? **(4mks)**

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(d) According to the passage, a certain group of women are likely to experience depression. Who are they? **(2mks)**

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(e) If depression in a pregnant woman becomes worse, what should be done? **(2mks)**

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(f) Provide an antonym of the word "angry". **(1mk)**

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(g) Explain the meaning of the following words and phrases as used in the passage? **(4mks)**

(i) Mental muscle.

(ii) Misgiving

(iii) Drains

(iv) Last resort

2. *Read the excerpt below and then answer the questions that follow.*

Krogstad : I asked you if it was only a disagreeable scene at home that you were afraid of?

Nora : If my husband does get to know of it, of course he will at once pay you what is still owing, and we shall have nothing more to do with you.

Krogstad : (*coming a step nearer)*Listen to me, Mrs. Helmer. Either you have a very bad memory or you know very little of business. I shall be obliged to remind you of a few details.

Nora : What do you mean?

Krogstad : When your husband was ill, you came to me to borrow two hundred and fifty pounds.

Nora : I didn't know anyone else to go to.

Krogstad : I promised to get you that amount___

Nora : Yes, and you did so.

Krogstad : I promised to get you that amount, on certain conditions. Your mind was taken up with your husband's Illness, and you were so anxious to get the money for your journey that you seem to have paid no attention to the conditions of our bargain. Therefore, it will not be amiss if I remind you of them. Now, I promised to get the money on the security of a bond which I drew up.

Nora: Yes, and which I signed.

Krogstad: Good. But below your signature there were a few lines constituting your father a surety for the money; those lines your father should have signed.

QUESTIONS

(a) Place the excerpt in its immediate context. **(4 mks)**

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(b) What disagreeable scene is Krogstad alluding to? **(2 mks)**

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(c) What reasons did Nora have when getting the money from Krogstad? **(2 mks)**

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(d) State and explain any one character trait of the following. **(2 mks)**

(i) Krogstad

……

……

(ii) Norah

……

……

(e) Why is Krogstad so much keen in protecting his job at the bank. **(2 mks)**

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……

(f) State and explain any two styles used in this excerpt. **(2 mks)**

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(g) With reference to the rest of the play, what makes Nora's procurement of money from Krogstad fraudulent? **(3 mks)**

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(h) Explain the meaning of the following words as used in the passage.

(a) Obliged **(1 mk)**

(b) Amiss **(1 mk)**

(i) Write the following statement as a question.

I promised to get you that amount. **(2 mks)**

……

3. <u>POETRY</u>:

<u>Read the poem below and answer the questions that follow</u>. **(20mks)**

WILFRED OWEN

Dulce Et Decorum Est.

Bent double, like old beggars under sacks,
Knock-kneed, coughing like hags, we cursed through sludge,
Till on the haunting flares we turned our backs
And towards our distant rest began to **<u>trudge</u>**.
Men marched asleep. Many had lost their boots
But limped on, blood-shod. All went lame; all blind;
Drunk with fatigue; deaf even to the hoots.
Of disappointed shells that dropped behind.

GAS! Gas! Quick, boys!—An ecstasy of **<u>fumbling</u>**,
Fitting the clumsy helmets just in time;
But someone still was yelling out and stumbling
And floundering like a man in fire or lime.—
Dim, through the misty panes and thick green light
As under a green sea, I saw him drowning.

In all my dreams, before my helpless sight,
He plunges at me, guttering, choking, drowning.

If in some smothering dreams you too could pace
Behind the wagon that we flung him in,
And watch the white eyes writhing in his face,
His hanging face, like a devil's sick of sin;
If you could hear, at every jolt, the blood
Come gargling from the froth-corrupted lungs,
Obscene as cancer, bitter as the cud
Of vile, incurable sores on innocent tongues,--
My friend, you would not tell with such high **zest**
To children ardent for some desperate glory,
The old Lie: Dulce et decorum est
Pro patria mori.*

*Latin for: It is sweet and fitting to die for one's country.

(i) Describe briefly what the poem is about. **(4mks)**

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(ii) Who is the persona? **(2mks)**

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(iii) Identify and illustrate any three features of style used in the poem. **(6mks)**

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(iv) Explain one thematic concern raised in the poem. **(3mks)**

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(v) Comment on the title of the poem. **(2mks)**

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(vi) Give the meaning of the following words. **(3mks)**

(a) trudge

(b) fumbling

(c) zest

4. <u>GRAMMAR:</u> **(15MKS)**

(a) Rewrite the following sentences according to the instructions given after each. **(3mks)**

(i) I cannot decide what to eat (Begin: What …….)

(ii) The Ministry of Education has warned all principals. (Rewrite in **Passive**)

(iii) The bridge had been weakened by successive storms and was no longer safe. (Begin: Weakened……..)

(b) Complete the following sentences with the **most appropriate prepositions**. **(3mks)**

(i) His breath smelt _____ alcohol.

(ii) He has been dealing _____ hardware for a long time.

(iii) I disagreed _____ him over the issue.

(c) Complete the following sentences with the **correct form** of words in brackets. **(3mks)**

(i) The _____ (sell) of the house has been stopped.

(ii) John Michuki's death is an _____ (repair) loss of the nation.

(iii) The meat that we carried _____ (stink) after only two days.

(d) In the sentences **below**, choose the **correct pronoun** to fill in the blanks. **(2mks)**

(i) Temu gave Ombiro and _____ (I, me) birthday gifts.

(ii) It was _____ (she, her) who was rewarded.

(e) In the following sentences identify the verbs and state whether they are **transitively** or **intransitively** used. **(2mks)**

(i) Mirang'a shut the door.

(ii) The baby slept soundly the whole night.

(f) Complete the following sentences with the correct order of **adjectives** in **brackets**. **(2mks)**

(i) The principal sank into his _____ (leather, new, comfortable, Kenyan) chair.

(ii) I had to wear _____ (grey, woolen, executive) jacket.

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

ENGLISH

(Imaginative Composition and Essays Based on the Set Texts)

101/3

PAPER 3

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDINDATES

a) *Answer three questions only*

b) *Question one and two are compulsory*

c) *In question three, choose only one of the optional texts you have prepared on.*

d) *Where a candidate presents work on more than one optional text, only the first to appear will be marked.*

e) *Each essay should not exceed 450 words.*

FOR EXAMINER'S USE ONLY.

QUESTION	TOTAL MARKS	CANDIDATE'S SCORE
1.Imaginative Composition	20	
2.The Compulsory Set Text	20	
3.The Optional Set Text	20	
TOTAL	60	

1. IMAGINATIVE COMPOSITION **(20 MKS)**

Either

a) Write a story starting with the statement,

The news on the cancellation of my KCSE results after being in Bahati High School for five years was received with shock and resentment**……**

OR

b) Write a composition based on the following statement.

"The solution to the run-away corruption is in the hands of Kenyan's themselves."

2. Compulsory questions. The Blossoms of Savannah by Olet Kulet **(20 mks)**

'Our greatest enemies are those close to us.' Support this statement with illustrations from the novel.

3. Answer only one question from these choices

THE OPTIONAL SETBOOKS **(20 MKS)**

Either

a) Short story

Ninema is an admirable character. Support this from Vrenika Pather's **'Ninema'**

OR

b) The Novel: Kazuo Ishiguro, *Artist of the Floating World.*

The teachers in "**An Artist of the Floating World**" have a passionate, paradoxicalrelationship to their most gifted students. Discuss.

(c)Inheritance, David Mulwa

"Lacuna represents the evil that bedevils our leaders." Write an essay to justify this using **Inheritance** by David Mulwa.

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

KISWAHILI

102/1

PAPER 1

TIME: 1¾ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

MAAGIZO

a) Andika jina lako na nambari yako ya mtihani katika nafasi ulizoachiwa hapo juu.

b) Tia sahihi yako kisha uandike tarehe ya mtihani katika nafasi ulizoachiwa hapo juu.

c) *Andika insha mbili. Swali la **kwanza** ni la lazima.*

d) *Kisha chagua insha nyingine moja kutoka kwa hizo tatu zilizobakia.*

e) *Kila insha isipungue maneno 400.*

f) *Kila insha ina alama 20.*

g) *Kila insha lazima iandikwe kwa lugha ya Kiswahili*

KWA MATUMIZI YA MTAHINI PEKEE

Swali	Upeo	Alama
1	20	
2	20	
3	20	
4	20	
	Jumla 40	

INSHA

1. Lazima.

Umepata kazi ya utangazaji katika kampuni moja nchini. Umealikwa kwa mahojiano. Andika mahojiano kati yako na mkurugenzi wa kampuni hiyo **(al.20)**

2. Andika kisa kitakachodhihitisha maana ya methali sikio la kufa halisikii dawa **(al.20)**

3. Jadili mikakati inayotumiwa na serikali kupambana na tishio la usalama nchini **(al.20)**

4. Andika kisa kitakachomalizia kwa maneno haya

…….nilitamani ardhi ipasuke inimeze mzima mzima. **(al.20)**

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

KISWAHILI

(Matumizi Ya Lugha)

102/2

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

MAAGIZO

1. *Jibu maswali yote katika nafasi uliyopewa.*

2. *Andika majibu yako kwa lugha ya Kiswahili.*

	SWALI	**UPEO**	**ALAMA**
1.	Ufahamu	15	
2.	Ufupisho	15	
3.	Matumizi ya lugha	40	
4.	Isimujamii	10	
	Jumla	80	

SEHEMU YA KWANZA (ALAMA 15)

UFAHAMU

MAJILIO ya wakoloni barani Afrika ambao walidumisha utawala wao katika'bara jeusi' kwa takriban kipindi cha miaka sabini kulisababisha mivutano ya kiisimu mpaka leo (Ngugi,1993,uk 42)

Wakoloni walizipa kipaimbele lugha za kigeni na kuzikandamiza zile za kiasili zisiweze kuelezea uhalisi wa maisha katika viwango vya teknolojia. Kwa hakika, itazichukua lugha hizi muda mrefu kwenda sambamba na maendeleo ya fikra na teknolojia kwa kutoandaliwa vyema kutekeleza wajibu huu.

Lugha ni kipengele muhimu sana cha utamaduni. Hivyo basi serikali zinawajibika kuzilinda, sio tu kwa sababu lugha zimejaa maarifa mengi ya tangu jadi, bali pia kwa sababu lugha ni chombo cha maendeleo ya binadamu.

Maarifa yote na ufanisi wa binadamuu huelezwa kupitia kwa lugha. Mwelekeo ulioonekana kishika sana katika mataifa megi barani afrika, ikiwemo Kenya, ni kuhusudu lugha na tamanduni za kigeni. Lugha za kigeni zimehusishwa na maendeleo na ustaarabu.

Hatua iliyochukuliwa na serikali ya Tanzania ya kufunza masomo yote kwa lugha ya Kiswahili kuanzia darasa la kwanza hadi chuo kikuu ilizua kejeli na kicheko kwa baadhi wa wakenya; hususan katika stesheni za fm. Kisa na maana: jambo hili haliwezekani!

Je, ni lazima tutegemee lugha za kigeni kupiga hatua kimaendeleo? La hasha! Kuna ushahidi wa mataifa kama vile Uchina, Ufini,Sweden, Indonesia,Japan,Malaysia, India,Uyahudi n.k. yalioendeleza lugha zao kimakusudi ili ziweze kukidhi haja kufundishia masomo yote hadi viwango vya juu sana vya elimu.

Katika sherehe za kuadhimisha siku ya kimataifa ya 'lugha mama' miongoni mwa mataifa wanachama wa umoja wa mataifa (united Nations International Mother Language Day) mnamo februari, 2000, mkurugenzi wa shirika la umoja wa mataifa kuhusu Elimu,sayansi na utamanduni(UNESCO), jenerali koichiro Matsuura alisema: 'mojawapo ya vigezo vitumiwayo na wataalmu kukadiria iwapo lugha Fulani inatishiwa kuangamia au kufa ni iwapo watoto wanajifunza lugha hiyo…

Iwapo takribani asilimia 30 ya watoto, hawajifunzi lugha yao'ya mama', basi lugha hiyo inatishiwa kuangamia… lugha hiyo bila shaka huenda ikafa pamoja na kizazi kinachoizungumza.'

Kwa mujibu wa UNESCO, lugha nyingi ambazo zimetishiwa kufa au kutoweka zinapatikana katika mabara ya merakani na Australia. Shirika hililinaongeza kuwa, nchini Kenya, lugha kama vile suba,El Molo, Lorkoti, Yaaku sogoo,kore,Segeju,Omotik, na KInare' zimekufa' au kutoweka huku Bong'om na Terik/Tiriki zimo kwenye hatari ya kutoweka.

Lugha pia huangamia wakati ambapo lugha hizo zinashindwa kuzihudumia jamii zao ipasavyo kama chombo mahsusi cha mtagusano wa kijamii. Baadhi ya lugha huku na kusambaa huku zingine zikididimia na hatimaye'kumezwa' na lugha zilizoshaimiri au hata kutoweka kabisa. Kwa mfano, jamii ya Seng'wer 'imemezwa' na makabila kama vile Wapokot, Wamarakwet, Wakeiyo, Watugen, Wanandi na Waluhya, ilhali Wakipsigis,Watugen na Wamaasai'wammeza'jamii ya Ogiek.

Hata hivyo,mkaoni nyanza ya kusini nchini Kenya, wakakti wa uchaguzi mdogo wa useneta katika gatuzi ya Homabay, tulisikia kupitia kwa profesa….(aliyewania kiti), kwamba jamii ya Abasuba ipo-wala'haijamezwa' na jamii ya waluo.

Msimamo wa wizara ya elimu nchini Kenya kuhusu ufundishaji wa 'lugha ya mama' unaonekana kuyumba. Mara tunaambiwa lugha ya mama itafundishwa katika madarasa ya chini katika shule za mashambani; mara tunaambiwa itafundishwa katika madarsa ya chini katika maeneo Fulani; ilimradi wizara haijitokeza waziwazi na sera wala mwongozo mwafaka.

Njogu (2003) anahoji;'mkondo uliopo nchini Kenya hivi sasa ni ule wa jamii nyingi kuwahimiza watoto wao kuzungumza lugha za kigeni kama vile kiingeraza, kifaransa, na hata kijerumani na kupuuza lugha ya kwanza. Hii inatokanan na imani kuwa lugha za kigeni ndizo zitakazofungua njia za kigeni ndizo zitakazofungua njia za maendeleo hapo baadaye.

Mkondo huu usipozuiliwa, huenda ukasababisha vifo vya lugha za kiasili' Njogu anaendelea: 'uwezo wa kuongea lugha nyingine pamoja na yenye asili ya kikoloni huweza kujenga jisia za kujiamini miongoni mwa watu wasiokuwa na uwezo mwingi wa kiuchumi-nako kujiamini ni hatua ya awali ya kuleta maendeleo ya jamii'MAKIWA! Familia, jamaa na marafiki wa Grace Ogot aliyeandika baadhi ya kazi zake kwa lugha ya mama.

Maswali

1. Ni nini kisababishi cha mivutano ya kiisimu katika bara la afrika **(al. 2)**

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2. Serikali zinafaa kuwajibika katika kuzilinda lugha . eleza **(al. 2)**

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3. Ni hatua gani ambayo ilichukuliwa nan chi ya Tanzania ambayo ilizua kejeli na kicheko kwa baadhi ya wakenya **(al. 1)**

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4. Lugha ya mama inasemekana kuwa katika tishio la kuangamia kwa kutumia vigezo gani? **(al. 2)**

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5. Kwa nini jamii nyingi huwahimiza watoto wao kuzungumza lugha za kigeni kigeni **(al. 2)**

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6. Kuna mabara ambayo yametajwa kuwa na lugha nyingi ambazo zinatishiwa na kufa au kutoweka. Yataje mabara hayo. **(al. 2)**

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7. "Msimamo wa wizara ya elimu kuhusu ufundishaji wa lugha ya mama unaonekana kuyumba " Eleza **(al. 2)**

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8. Eleza maana ya msamiati ufuatayo kwa mujibu wa taarifa au ufahamu

a) Takriban

……

……

b) Mtagusano

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……

UFUPISHO

TUMEKWISHA kueleza katika makala ya hapo awli kuwa lugha ni maalum kwa binadamu tu na kwamba hakuna kiumbe yeyote ambaye si mwanadamu mwenye uwezo wa kujua, kujifunza na kutumia lugha zaidi ya binadamu.

Bila shaka, mawasiliano ya binadamu yanaweza kujumuishwa kama mawasiliano ya wanyama yaliyoendelezwa. Utafiti wa mawasiliano ya wanyama, uitwao'zuosemiotiki'(zoosemiotics) tofauti na 'athroposemiotiki'(utafiti wa mawasiliano ya binadamu), umechangia pakubwa katika ukuzaji wa uwezo wa mnyama wa kutambua. Jambo hili ni dhahiri kwani binadamu wanaweza kuwasiliana na wanyama kwa kutumia njia za kipekee lakini si'lugha'.

Makala haya yanalenga kuthmini na kuzamia sifa au tabia za lugha ya mwanadamu. Kimsingi sifa ai Tania hizi ndizo zinazoitofautisha lugha ya mwanadamu na aina nyinginezo za mawasiliano zitumiwazo na ndege au wanyama.

Unasibu wa lugha ya binadamu unaangaliwa katika ukweli kwamba binadamu hazaliwi na lugha, anakutana nayo kwa unasibu tu. Hakuna uhusiano wa moja kwa moja au wa aili kati ya kitajwa(kitu au umbo linalomaanishwa au maana).

Uhusiano wake ni wa unasibu na unatokana na makubaliano ya watu wajua – lugha yao. Hata makubaliano haya ya kwamba kitu kiitwe au dhana Fulani iitwe na kuelezwa kwa namna Fulani ni ya kinasibu tu. Hapa tunamaanisha kwamba mkutano au kikao ambaco binadamu amewahi kukaa akasema mathalani neno "chuki" limaanishe hali ya kutompenda mtu au neno "upendo" limaanishe hali ya kuonesha huba kwa mtu. Kila jamuiya-lugha ina namna yake ya kuufasili na kuelekezea ulimwengu kwa lugha yake ambayo inatofautiana na jamuiya-lugha nyingine.

Lugha ya mwanandamu inao uwezo wa kuambukiza utamanduni kutoka katika kizazi kimoja kwenda kizazi kingine au kutoka katika jamuiya-lugha moja kwenda katika nyingine. Leleweke kuwa, uwezo huu wa kuambukiza maarifa ya lugha hufanyika kwa njia ya kusoma au kujifunza na si kurithi. Kwa mfano, mtu anaweza kurithi. Kwa mfano, mtu anaweza kurithi maumbile kutoka kwa wazazi wake, mathaalan aina ya nywele, macho, pua, kucha au masikio lakini mtu hawezi kurithi lugha.

Lugha inamfikia kwa kuambukiza katika jamuiya-lugha anayokulia na kulelewa. Yatupasa tukumbuke kuwa, ingawa mwanadamu anazaliwa na ule uwezo(kitengo cha lugha) wa kujifunza lugha"language Acquisition Device"kama anavyoeleza mwanaisimu Naom Chomsky, lakini hazaliwi na lugha. Hii ndiyo sababu mwanandamu anaweza kujifunza lugha yeyeote ile na kwa wakati wowote maadamu yupo katika mazingira na hali ya kawaida na saidizi.

Lugha ya mwanandamu imepangwa katika viwango viwili ambavyo vinashirikiana na kukamilishana. Kiwango cha kwanza I kile kiwango cha utamkaji wa sauti au utoaji wa sauti kwa kutumia ala mbalimbali za matamshi. Sauti hizi zikisimama peke yake hazina maana yoyote, ni kama milio tu kama kupiga chafya, au kelele zinazotokana na kubururwa kwa meza kwenye sakafu au kelele za injini ya pikipiki.

Sauti hizi zinapounganishwa (kwa kufuata sheria, kanuni na taratibu za lugha husika) tunapata kiwango kingine cha pili cha maana. Sifa ya uwili inadhihirisha sifa ya uwekevu katika lugha ya

mwanadamu kwani kwa kutumia sauti hizi chache mzungumza lugha anaweza kutunga na kutamka sentensi nyingi au tungo nyingi na zenye maana tofauti tofauti bila kikomo

Suala jingine la msingi ni kwamba, tunaposema kuwa lugha imegawika katika viwango viwili, kiwango cha sauti na kiwango cha maana haimaanishi kwamba binadamu anatumia viwango hivi kuipekepeke. Hata siku moja mwanadamu hasemi kwamba sasa naanza kutamka sauti za neno Fulani, halafu ndiyo niweke maana yake. La hasha!

Binadamu hutamka kwa mara moja sauti pamoja na maana zikiwa zimebebana ndani kwa ndani(hutamka sauti pamwe na maana). Yaani, wakati anatamka sauti na kuziunganisha ndiyo wakati anaambatanisha na maana ndani yake. Hii ndiyo sifa au uwili katika lugha ya mwanadamu.

Uzalikaji katika lugha ya binadamu unajidhihirisha katika uwezo wa mwanandamu kubuni na kuunganisha maneno na miundo mbalimbali ya tungo bila kikomo. Mjuzi wa lugha anastahili kutunga na kuzielewa tungo mbalimbali ikiwa ni pamoja na zile ambazo hajawahi kuzisikia wala kuzitunga yeye mwenyewe.

Aidha, anapaswa kuelewa tungo zilizotungwa na watu wengine na kufahamu maana ya kisemantiki na ile kipragmatiki zinazodhihirika kadri anaposimbua jumbe zilizomo. Anapaswa kuzielewa tungo sahihi na zile zisizo sahihi. Hivyo uwezo huu unatofautiana na aina nyingine ya mawasiliano inayotumiwa nan a wanyama wengine, kwa mfano,”nyenje ni mnyama mwenye milio au ishara nne za kuchagua ili awasiliane, tumbili ana miito sita tu. Hivyo wanyama wote hawa wana idadi isiyobadilika ya milio na sauti au ishara na hawana uwezo wa kubuni namna nyingine ya kuwasiliana au kubuni milio mingine ya kuwezesha na kudumisha mawasiliano yao.

Maswali

a) kwa maneno kati ya 50- 60 fupisha aya tau za kuanza (**al. 8. 1 mtiririko)**

matayarisho

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Jibu

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b) kwa kutumia maneno 60-70 bainisha ujumbe ambao mwandishi anaibua katika ya tatu za mwisho (al. 7, 1 mtirirko)

matayarisho

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Jibu

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SEHEMU YA TATU: SARUFI NA MATUMIZI YA LUGHA (ALAMA 40)

1. Bainisha sifa za sauti ifuatayo /o/ **(al. 2)**

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2. Kambishi ni nini? **(al. 1)**

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……

3. Onyesha matumizi ya kiambishi "ku" katika sentensi ifuatayo

Nitakupa fedha za mchango ili uende ukaniwakilishe **(al. 2)**

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4. Nyambua vitenzi vifuatavyo katika kauli zilizowekwa katika mabano

i) pa(kutendeka)

……

ii) ha(kutendewa) **(al. 2)**

……

5. Tunga sentensi moja katika wakati ujao hali timilifu **(al. 1)**

……

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6. Onyesha aina za virai katika sentensi ifuatayo.

Mteja wangu atawasili kesho saa tatu **(al. 2)**

……

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7. Tumia kivumishi kionyeshi kisisitizi cha mbali kidogo pamoja na nomino katika ngeli ya li-ya kutunga sentensi **(al. 2)**

……

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8. Tunga sentensi moja yenye kishazi huru na kishazi tegemezi ukitumia'o' rejeshi tamati **(al. 2)**

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9. Changanua sente4nsi ifuatayo kwa jedwali/visanduku

Mkulima alilima kwa bidii lakini hakupata mazao mengi **(al. 4)**

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10. Onyesha aina za shamirisho katika sentensi uliyopewa

Babu alisomewa barua na mjukumu wake

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11. Tunga sentensi mbili ili kuonyesha matumizi ya kiambishi ‘po’ cha

(i) Wakati

(ii) Mahali

12. Changanua kitenzi kufuatacho **(al. 4)**

Alimlisha.

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13. Kwa kutunga sentensi eleza matumiz mawili tofauti ya **kiakifishi** **(al. 2)**

Parandesi

14. Eleza maana ya sentensi ya masharti (**al. 1)**

Tunga sentensi ya **masharti (al. 2)**

15. Andika visawe vya maneno yaliyopigiwa mstari

Daktari alipokuwa akimtibu alishikwa na kisulisuli **(al. 2)**

16. Bainisha kihisishi na kihusishi katika sentensi

Naam! Ameingia kabla ya mwalimu kufika **(al. 2)**

17. Andika sentensi ifuatayo kwa msemo wa taarifa

“nitaweza kuondoka kwangu kesho asubuhi.”mwalimu akasema **(al. 3)**

18. Bainisha kiima na chagizo katika sentensi

Mwenyewe alimpenda kwa dhati **(al. 2)**

SEHEMU YA NNE: ISIMU JAMII (ALAMA 10)

1. Taja dhana au nadharia zinazohusiana na chimbuko la lugha ya Kiswahili **(al. 3)**

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2. Eleza maana ya istalahi zifutatazo kama zinavyotumika katika isimujamii

i) misimu

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……

ii) lafudhi

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iii) pijini **(al. 3)**

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3. Taja sifa nne za sajili ya maabadini **(al. 4)**

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KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

KISWAHILI

FASIHI

102/3

PAPER 3

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

MAAGIZO

- ***a)*** *Jibu maswali manne* ***pekee****.*
- ***b)*** *Swali la* ***kwanza*** *ni la* ***lazima***
- ***c)*** *Maswali hayo mengine matatu yachaguliwe kutoka sehemu nne zilizobaki yaani; Riwaya Hadithi fupi,Tamthilia na Ushairi.*
- ***d)*** *Usijibu maswali* ***mawili*** *kutoka* ***sehemu moja****.*
- ***e)*** *Majibu yote yaandikwe kwa lugha ya Kiswahili*

KWA MATUMIZI YA MTAHINI PEKEE

Swali	Upeo	Alama
1	20	
	20	
	20	
	20	
	Jumla	

SEHEMU A:

"Mapambazuko ya Machweo na hadithi nyingine" **Swali la lazima**

1. Swala la Elimu limepewa kipaumbele katika hadithi ya sabina. Jadili **alama 20**

SEHEMU B:
Chozi la heri

Chagua swali la 2 au 3

2. "…….. wanahofia kusema wasije wakavikata viganja vinavyowalisha……..

(a) Eleza muktadha wa dondoo hili (ala. 4)

(b) Taja maudhui yanayojitokeza katika dondoo hili na ueleze (ala. 2)

(c) Kwa kutoa hoja kumi, eleza namna maudhui uliyotaja hapo juu (2b) yanavyojitokeza katika riwaya (ala. 10)

(d) Eleza sifa nne za msemaji (ala. 4)

3. (a) Migogoro ni maudhui muhimu katika riwaya hii. Fafanua (ala. 10)

(b) Uozo umetamalaki katika jamii ya *Chozi la Heri*. Tetea kauli hii kwa kutolea hija kumi zilizoelezwa (ala. 10)

SEHEMU C: TAMTHILIA

Kigogo

Jibu swali la 4 au 5

4. ***Wewe unajua vote valivosemwa. hadharani na faraghani. Si makanisani, si magweni. leo nikiviona vitoto hivi vilivyochekwa 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)**

5. ***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 D: USHAIRI

Jibu swali la 6 au la 7

6. Shairi

La adhabu hili wingu, lataka kutunyeea
Himahima kwalo vungu, pasi nako kuchelea, Kujikinga hili wingu, sije katunyeshea.

Wengineo hawajali, wasinayo wasiwasi, Tahadhari hawabali, wajiunge nasi
Aidha watafakali, mengine yalo hasi.

Vua hili halibagui, jinsia wala umri, Na kama hawajui, tuwajuze vizuri, Kwani siso adui, kuwao msumari.

Tangazo haliwapiku, wahimizwa kujikinge, Wingu hili la usiku, ukicheza likuringe, Latutia usumaku, daima likunyonge.

Vumilia kwalo vungu, nje kuna dhoruba,
Yavuma kwa machungu, bila lolote huba, Tunza chako kijungu, fungia kwalo juba.

Japo nafika tamati, nawaacha tafakari,
Madhara linalo wananti, wingu hili sukari,
Daima mwape kujiseti, mjitunze kujijari

Maswali

1. Eleza ujumbe wa mwandishi katika ubeti wa nne **(ala. 2)**
2. Onyesha ufundi wa kimuundo wa mwandishi katika utunzi wa shairi hili **(ala. 4)**
3. Eleza namna jazanda imetumika katika utungo huu. **(ala. 2)**
4. Kwa kuzingatia idadi ya mishororo katika beti tambua aina ya ushairi huu **(ala. 1)**
5. Tamthini ustadi wa mshairi katika matumizi yaidhini ya kishairi **(ala. 3)**
6. Litie shairi hili katika bahari tatu tofauti **(ala. 3)**
7. Andika ubeti wa **nne** kwa lugha ya tutumbi **(ala. 4)**
8. Eleza sifa moja ya nafsi neni katika shairi hili **(ala. 1)**

7. Ushairi

Soma shairi lifuatalo kasha ujibu maswali yanayofuata

1. Maendeleo ya umma Sio vitu maghalani
Kama tele vimesaki
Lakini havishikiki Ama havikamatiki
Ni kama jinga la moto
Bei juu

2. Maendeleo ya umma
Sio vitu gulioni
Kuviona madukani
Kuvishika mikononi
Na huku wavitamani Kama tama ya fisi
Kuvipata ng'o

3. Maendeleo ya umma
Sio vitu shubakani
Dhiki ni kwa mafakiri
Nafuu kwa matajiri
Ni wao tu washitiri

Huo ni ustiimari
lo! Warudia

4. Maendeleo ya umma Ni vitu kumilikiwa
Na wanyonge kupatiwa
Kwa bei kuzingatiwa
Bila ya kudhulumiwa
Na hata kuhadaiwa
Hiyo ni haki

5. Maendeleo ya umma Dola kudhibiti vitu
Vijapo nchini mwetu
Na kuwauzia watu
Toka nguo na sapatu
Pasibakishiwe na kitu
Huo usawa

6. Maendeleo ya umma

Watu kuwa na kauli Katika zao shughuli
Vikaoni kujadili
Na mwisho kuyakubali
Maamuzi halali
Udikteta la

7. Maendeleo ya umma
Watu kuwa waungwana
Vijakazi na watwana
Nchini kuwa hakuna
Wote kuheshimiana
Wazee hata vijana

Maswali

(a) Toa anwani mwafaka ya shairi hili (**ala. 1)**
(b) Shairi hili ni la aina gani? Toa sababu zako **(ala. 2)**
(c) Eleza dhamira ya mwandishi kuandika shairi hili **(ala. 3)**
(d) Toa mifano miwili ya urudiaji katika shairi hili, Je urudiaji huu una kazi/majukumu gani? **(ala. 4)**
(e) Onyesha matumizi mawili ya tamathali za usemi katika shairi hili **(ala. 4)**
(f) Eleza toni ya mshairi. Toa sababu **(ala. 2)**
(g) Nafsineni ni nani? **(ala. 1)**
(h) Toa mfano mmoja wa twasira katika hili. Je, twasira hiyo inajengwa na nani? **(ala. 3)**

SEHEMU E: FASIHI SIMULIZI

8. (a) Fafanua sifa za matambiko katika jamii **(ala. 4)**
(b) Eleza tofauti kati ya maigizo ya kawaida na maonyesho ya sanaa **(ala. 10)**
(c) Taja shughuli zozote mbili zinazoonyesha matumizi ya Ulumbi katika jamii ya kisasa **(ala. 2)**
(d) Tofautisha dhana zifuatazo
(i) Miviga na maapizo **(ala. 2)**
(ii) Ngoma na ngomezi **(ala. 2)**

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

MATHEMATICS

121/1

PAPER 1

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

Instructions to Candidates

(a) *Write your name, admission number and class 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 any **five** questions from **Section II***

(e) ***Show all the steps in your calculations, giving your answers at each stage in the spaces provided below each question***

(f) *Marks may be given for correct working even if the answer is wrong.*

(g) *Non-programmable silent electronic calculators and KNEC Mathematical tables may be used, except where stated otherwise.*

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

Grand Total

SECTION I (50 Marks)

1. Use square roots, reciprocal and square root tables to evaluate to 4 significant figures the expression; **(4 marks)**

$$(0.06458)^{\frac{1}{2}} + \left(\frac{2}{0.4327}\right)^{2}$$

2. Find the equation of the perpendicular bisector of line AB where A is (3, 9) and B (7, 5) giving your answer in the form $ax + by + c = 0$. **(3 marks)**

3. It takes 40 road construction workers 8 days working 10 hours a day to complete a section of a road. How many days would 60 road construction workers working 8 hours a day take to complete the same section of the road working at the same rate**?** **(3 marks)**

4. A solid cylinder with radius 7 cm and height 5 cm is melted down and recast into a spherical ball. Calculate to 2 decimal places the radius of the ball. **(3 marks)**

5. The currency exchange rates of a given bank in Kenya are as follows;

Currency	Buying	Selling
1 Sterling pound	135.50	135.97
1 US dollar	72.23	72.65

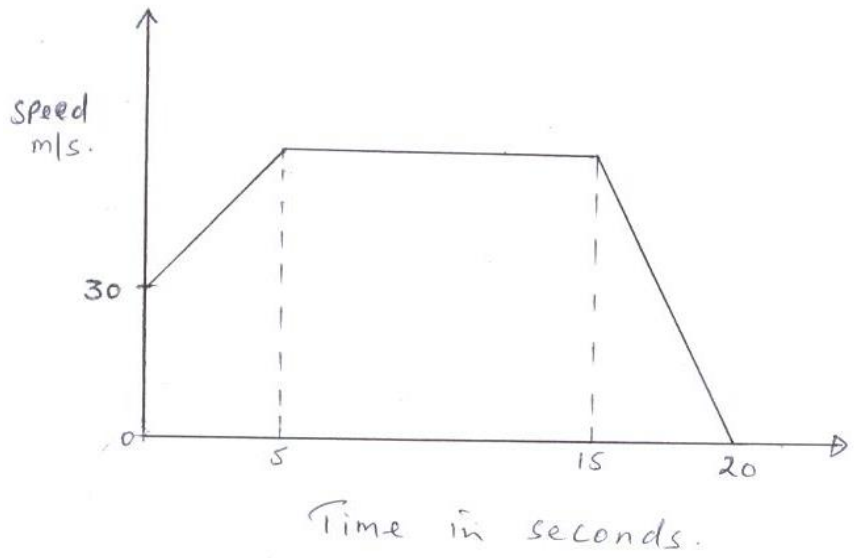
A tourist arrived in Kenya with 5 000 US dollars which he converted to Kenya shillings. He spent Kshs. 214 500 and converted the remaining to sterling pounds. How many pounds did he receive**?** **(3 marks)**

6. Find the value of n in $4^{n+1} + 2^{2n+1} = 384$. **(3 marks)**

7. The exterior angle of a regular polygon is $(x - 50)^0$ and the interior angle is $(2x + 20)^0$. Find the number of sides of the polygon. **(3 marks)**

8. Find x if $\cos(3x - 30^0) = \sin(7x + 50^0)$. **(2 marks)**

9. The figure below shows the motion of a particle in 20 seconds. The particle starts off at a speed of 30 m/s and accelerates at 4 m/s^2 for 5 seconds. Calculate the total distance covered by the particle in 20 seconds**.** **(4 marks)**



10. Construct triangle PQR such that PQ = 7 cm, QR = 5 cm and $\angle RPQ = 30^0$. Construct the locus L_1 of all points equidistant from P and Q to meet the locus L_2 of points equidistant from Q and R at M. Measure PM. **(4 marks)**

11. The surface areas of two cylindrical water tanks are 50 m^2 and 162 m^2 respectively. Given that the volume of water in the second tank is 36 450 cm^3, find the volume of water in the first tank if it's half full. **(4 marks)**

12. Solve the inequalities below and represent the solutions on a single number line. **(3 marks)**

$1 - 2x < 5, \quad 5 - 3x \geq -10.$

13. From the roof of a house, a boy can see an avocado tree which is 20 m away from the house. He measures the angle of elevation of the top of the tree as 21^0 and the angle of depression of the bottom of the tree as 31^0. Find the height of the avocado tree. **(3 marks)**

14. Simplify **(2 marks)**

$$\sqrt[2]{\frac{12\,x^{4}y^{-1}z^{5}}{3x^{-2}y^{-3}z^{3}}}$$

15. The position vector of **p** and **q** is $3i - 2j + k$ and $2i + j - 3k$ respectively. Determine the column vector PQ and hence calculate its length to 2 decimal places. (**2 marks)**

16. The table below shows the height of 50 bean plants, six weeks after planting.

Height (h) in cm	Cumulative frequency
$h \leq 4$	4
$h \leq 8$	15
$h \leq 12$	31
$h \leq 16$	44
$h \leq 20$	50

Estimate the mean height of the seedlings. **(4 marks)**

SECTION II (50 Marks)

Answer any five questions in this section in the spaces provided.

17. A trader sold an article at Ksh. 4 800 after allowing a customer a 12% discount on the marked price of the article. In so doing he made a profit of 45%.

a) Calculate to 2 decimal places;

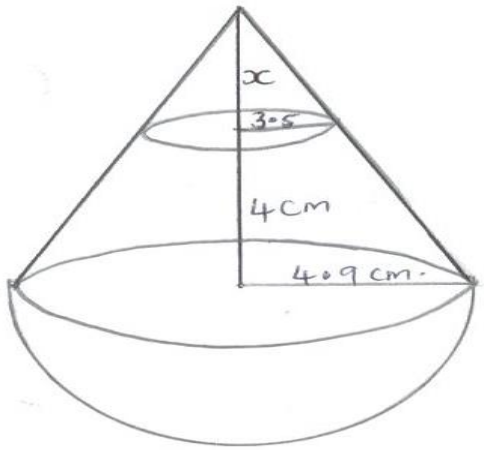
i. The marked price of the item**.** **(3 marks)**

ii. Price at which the trader had bought the article. **(2 marks)**

b) If the trader had sold the same article without giving a discount, calculate the percentage profit he would have made. **(3 marks)**

c) To clear his stock, the trader decided to sell all the remaining articles at a loss of 12.5%, calculate the price at which he sold each article**.** **(2 marks)**

18. The diagram below represents a solid consisting of a hemispherical bottom and a conical frustum at the top.



a) Determine the value of x and hence the height of the big cone. **(2 marks)**

b) Calculate the surface area of the solid. **(4 marks)**

c) Calculate the volume of the solid**.** **(4 marks)**

19. (a) Find the equation of a straight line L_1 that passes through the points P $(-6, -3)$ and Q $(1, 3)$ in the form $ay + bx = c$ where a, b and c are constants. **(2 marks)**

(b) A second line L_2 is parallel to L_1 and passes through $(2, -3)$. Find the equation of L_2 in the form $y = mx + c$**.** **(2 marks)**

(c) A third line L_3 passes through $(2, 3)$ and is perpendicular to L_1. Find the equation of L_3 in the form $ay + bx = c$. (**2 marks)**

(d) Use matrix method to find the coordinates of R the point where L_1 and L_3 intersect. **(4 marks)**

20. A factory blends three types of juice in the ratios $A:B = 3:4$ and $B:C = 1:2$

a) Determine;

i. The ratio $A:B:C$ **(1 mark)**

ii. The amount of type A juice in a 20 litre mixture. **(2 marks)**

b) The cost of producing one litre of A is Ksh. 80, one litre of B is Ksh. 84 and one litre of C is Ksh. 90.

i. Find the cost of producing one litre of the mixture. **(2 marks)**

ii. Calculate the selling price of one litre of the mixture if the factory makes a profit of 25%.
(2 marks)

c) The factory uses types of machines P and Q to blend the juices. Machine P takes 7 hours to blend 14 000 litres and Q takes 5 hours to blend 12 000 litres. Determine the time it would take the factory to blend 550 000 litres**.** **(3 marks)**

21. A motorist is to follow the route ABCD. B is 250 km from A on a bearing $N75^0E$ from A. C is on a bearing of $S75^0E$ from A and 275 km from B. D is 300 km on a bearing of $S80^0E$ from B. using a scale 1 cm to represent 50 km;

a) Show the relative position of ABCD**.** **(4 marks)**

b) Determine;

i. The distance of A from C**.** **(2 marks)**

ii. The bearing of B from C**.** **(1 mark)**

iii. The distance of A from D**.** **(2 marks)**

iv. The compass bearing of C from D. **(1 mark)**

22. Two towns P and Q are 550 km apart. A bus starts from town Q and travels towards P at 8: 45 a.m. at an average speed of 80 km/hr. A car starts from P towards Q at 10: 00 a.m. at an average speed of 100 km/hr. Calculate:

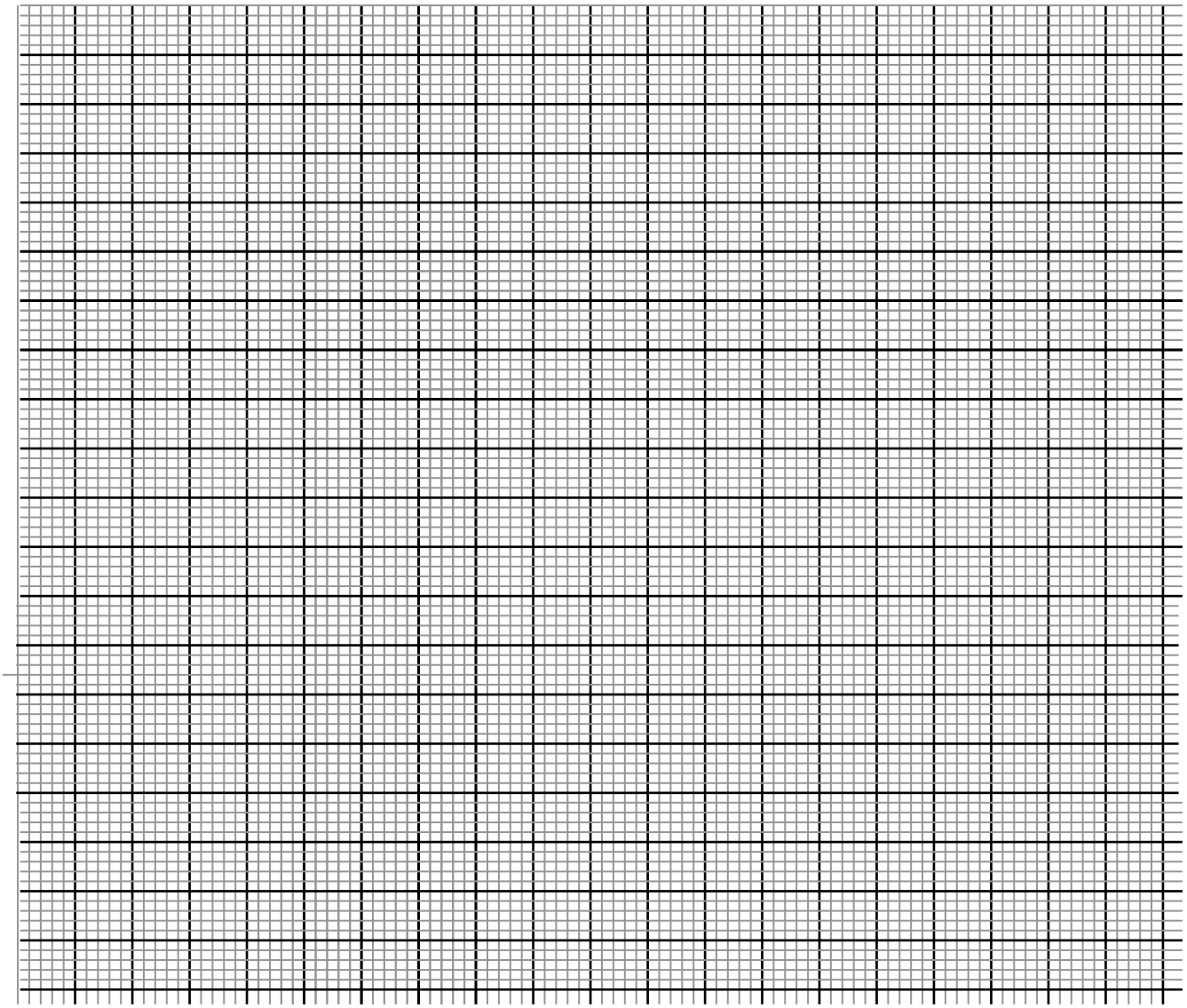
a. The distance covered by the bus before the car starts its journey. **(2 marks)**

b. How far from Q the vehicles met**.** **(3 marks)**

c. The time the two vehicles met**.** **(2 marks)**

d. The time the car arrived at town Q. **(3 marks)**

23. Triangle ABC has vertices A (1, 2) B (2, 3) and C (4, 1) while triangle $A'B'C'$ has vertices A′ (1, -2) B′ (2, -3) and C′ (4, -1).



a. Draw triangle ABC and $A'B'C'$ on the same grid**.** **(2 marks)**

b. Describe fully a single transformation that maps ABC onto triangle $A'B'C'$ **(2 marks**)

c. On the same grid, draw triangle $A''B''C''$ the image of ABC under a reflection in the line $y = -x$. **(2 marks)**

d. Draw triangle $A'''B'''C'''$ such that it can be mapped onto triangle ABC by a negative quarter turn about the origin**.** **(2 marks)**

e. Find the matrix of transformation that maps triangle ABC onto triangle $A'''B'''C'''$. **(2 marks)**

24. An investment group decided to raise Shs. 960 000 to buy a piece of land costing Kshs. 80 000 per hectare. Before they paid, four of them pulled out and those that remained were supposed to pay an additional Kshs. 40 000.

a. If the initial number of members was x, write down;

i. An expression of what each was to contribute originally**.** **(1 mark)**

ii. An expression of what each of remaining members contributed. **(1 mark)**

b. Calculate the number of members who were initially in the group using the expression in (a) above**.** **(5 marks)**

c. If the land was sub divided equally, calculate what size each member got**.** **(3 marks)**

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

MATHEMATICS

121/2

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

Instructions to Candidates

(a) *Write your name, admission number and class 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 any **five** questions from **Section II***

(e) ***Show all the steps in your calculations, giving your answers at each stage in the spaces provided below each question***

(f) *Marks may be given for correct working even if the answer is wrong.*

(g) *Non-programmable silent electronic calculators and KNEC Mathematical tables may be used, except where stated otherwise.*

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 questions in this section in the spaces provided.

1. Use logarithms to evaluate; **(4 marks)**

$$\left(\frac{6.79 \times 0.3911}{\log 5}\right)^{\frac{3}{4}}$$

2. The equation of a line is $-\frac{3}{5}x + 3y = 6$. Find the

a) Gradient of the line. **(1 mark)**

b) Equation of a line passing through point $(-1, 2)$ and perpendicular to the given line.

(3 marks)

3. A shirt whose marked price is sh. 800 is sold to a customer after allowing him a discount of 13%. If the trader makes a profit of 20%, find how much the trader paid for the shirt. **(3 marks)**

4. Simplify $\frac{\sqrt{11}}{\sqrt{11}-\sqrt{7}}$ **(2 marks)**

5. The length and width of a rectangular signboard are $(3x + 12)\ cm$ and $(x - 4)cm$ respectively. If the diagonal of the signboard is 200 cm, determine its area. **(4 marks)**

6. Find the value of x given that; **(3 marks)**

$\log(x-1)+2=\log(3x+2)+\log 25$

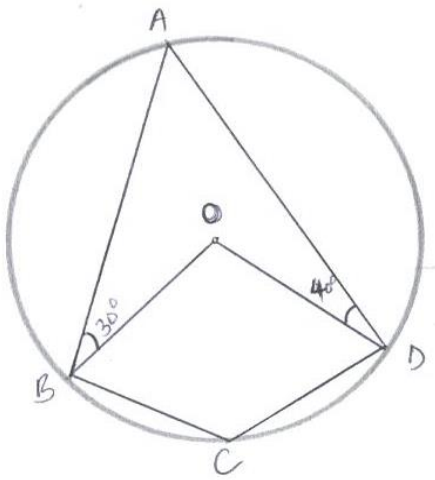
7. Use the expansion of $(x-y)^5$ to evaluate $(9.8)^5$ correct to 4 d.p. **(3 marks)**

8. Evaluate $\int_2^4 (\boldsymbol{x^2+2x-15})\,\boldsymbol{dx}$ **(3 marks)**

9. Make y the subject of formula: **(3 marks)**

$$P = \frac{xy}{x - y}$$

10. In the figure below, ABCD is a cyclic quadrilateral. Point O is the centre of the circle. $\angle ABO = 30°$ and $\angle ADO = 40°$.



Calculate the size of angle BCD. **(2 marks)**

11. Find the number of terms of the series $2 + 6 + 10 + 14 + 18$ ... that will give a sum of 800. **(2 marks)**

12. A bag contains 10 balls of which 3 are red, 5 are white and 2 are green. Another bag contains 12 balls of which 4 are red, 3 are white and 5 are green. A bag is chosen at random and then a ball chosen at random from the bag. Find the probability that the bell chosen is red. **(3 marks)**

13. The point $(5, 2)$ undergoes the transformation $\begin{bmatrix} 3 & 2 \\ -1 & 0 \end{bmatrix}$ followed by a translation $\binom{-6}{11}$. Determine the coordinates of the image. **(3 marks)**

14. The latitude and the longitude of two stations A and B are $(47°N, 25°E)$ and $(47°N, 70°E)$. Calculate the distance in nautical miles between A and B along latitude 47^0 N. **(3 marks)**

15. Using a ruler and a pair of compass only;

a) Construct a parallelogram PQRS in which PQ = 6 cm, and QR = 4 cm and $\angle SPQ = 75°$ **(3 marks)**

b) Determine the perpendicular distance between PQ and SR. **(1 mark)**

16. The mass of a mixture A of beans and maize is 72 kg. The ratio of beans to maize is 3:5 respectively.

a) Find the mass of maize in the mixture. **(1 mark)**

b) A second mixture B of beans and maize of mass 98 kg is mixed with A. The final ratio of beans to maize is 8:9 respectively. Find the ratio of beans to maize in B. **(3 marks)**

SECTION II (50 Marks)

Answer any five questions in the spaces provided in this section

17. Given the simultaneous equations

$5x + y = 19$

$-x + 3y = 9$

a) Write the simultaneous equations in matrix form. Hence solve the simultaneous equations. **(6 marks)**

b) Find the distance of the point of the intersection of a line $5x + y = 19$ and $-x + 3y = 9$ from the point $(11, -2)$ **(4 marks)**

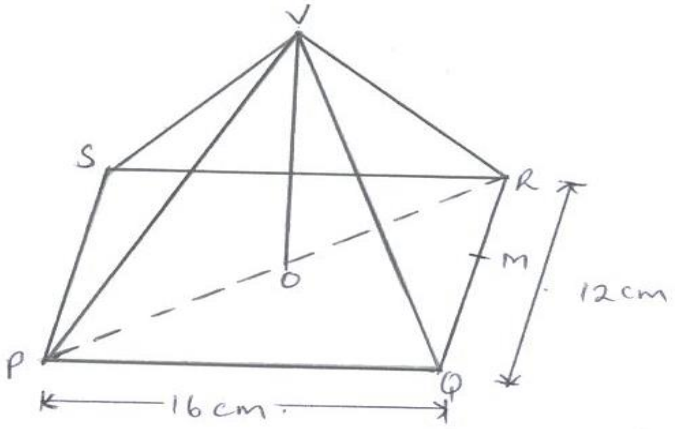
18. A particle was moving along a straight line. The acceleration of the particle after t seconds was given by $a = (9 - 3t)ms^{-2}$. The initial velocity of the particle was 7 m/s. Find:

a) The velocity (V) of the particle at any given time (t). **(4 marks)**

b) The maximum velocity of the particle. **(3 marks)**

c) The distance covered by the particle by the time it attained maximum velocity. **(3 marks)**

19. The figure below represents a right pyramid with vertex V and a rectangular base PQRS. $VP = VQ = VR = VS = 18\ cm$ PQ = 16 cm and QR = 12 cm. M and O are the mid points of QR and PR respectively.



Find;

a) The length of the projection of line VP on the plane PQRS. **(3 marks)**

b) The size of the angle between line VP and the plane PQRS. (**3 marks)**

c) The size of the angle between the planes VQR and PQRS. **(4 marks)**

20. Two towns A and B lie on the same latitude in the northern hemisphere. When it is 8:00 a.m. at A, the time at B is 11:00 a.m.

a) Given that the longitude of A is $15°$ E, find the longitude of B**.** **(3 marks)**

b) A plane leaves A for B and takes $3\frac{1}{2}$ hours to arrive at B travelling along a parallel of latitude at 850 km/h. Find,

i. The radius of the circle of latitude of towns A and B. (**4 marks)**

ii. The latitude of the two towns**.** **(3 marks)**

21. The gradient function of a curve is given by the expression $2x + 1$. If the curve passes through the point $(-4, 6)$,

a) Find;

i. The equation of the curve**.** **(3 marks)**

ii. The values of x at which the curve cuts the x- axis. **(3 marks)**

b) Determine the area enclosed by the curve and the x- axis**.** **(4 marks)**

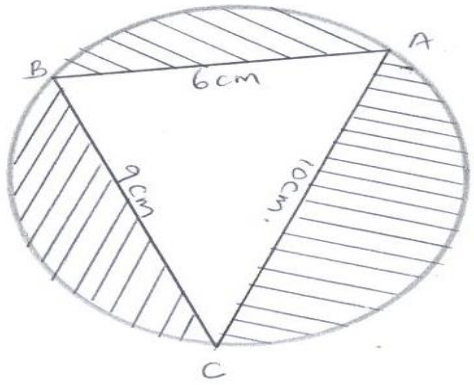
22. The transformation A given by the matrix $\begin{pmatrix} a & b \\ c & d \end{pmatrix}$ maps $\begin{pmatrix} 17 \\ 0 \end{pmatrix}$ to $\begin{pmatrix} 15 \\ 8 \end{pmatrix}$ and $\begin{pmatrix} 0 \\ 17 \end{pmatrix}$ to $\begin{pmatrix} -8 \\ 15 \end{pmatrix}$

a) Determine the matrix A giving a, b, c and d as fractions. **(4 marks)**

b) Given that A represent a rotation through the origin, determine the angle of rotation. **(3 marks)**

c) S is a rotation through 180^0 about the point (2, 3). Determine the image of (1, 0) under followed by A. **(3 marks)**

23. The figure below shows a triangle ABC inscribed in a circle (not drawn to scale.) AB = 6 cm, BC = 9 cm and AC = 10 cm.



Calculate;

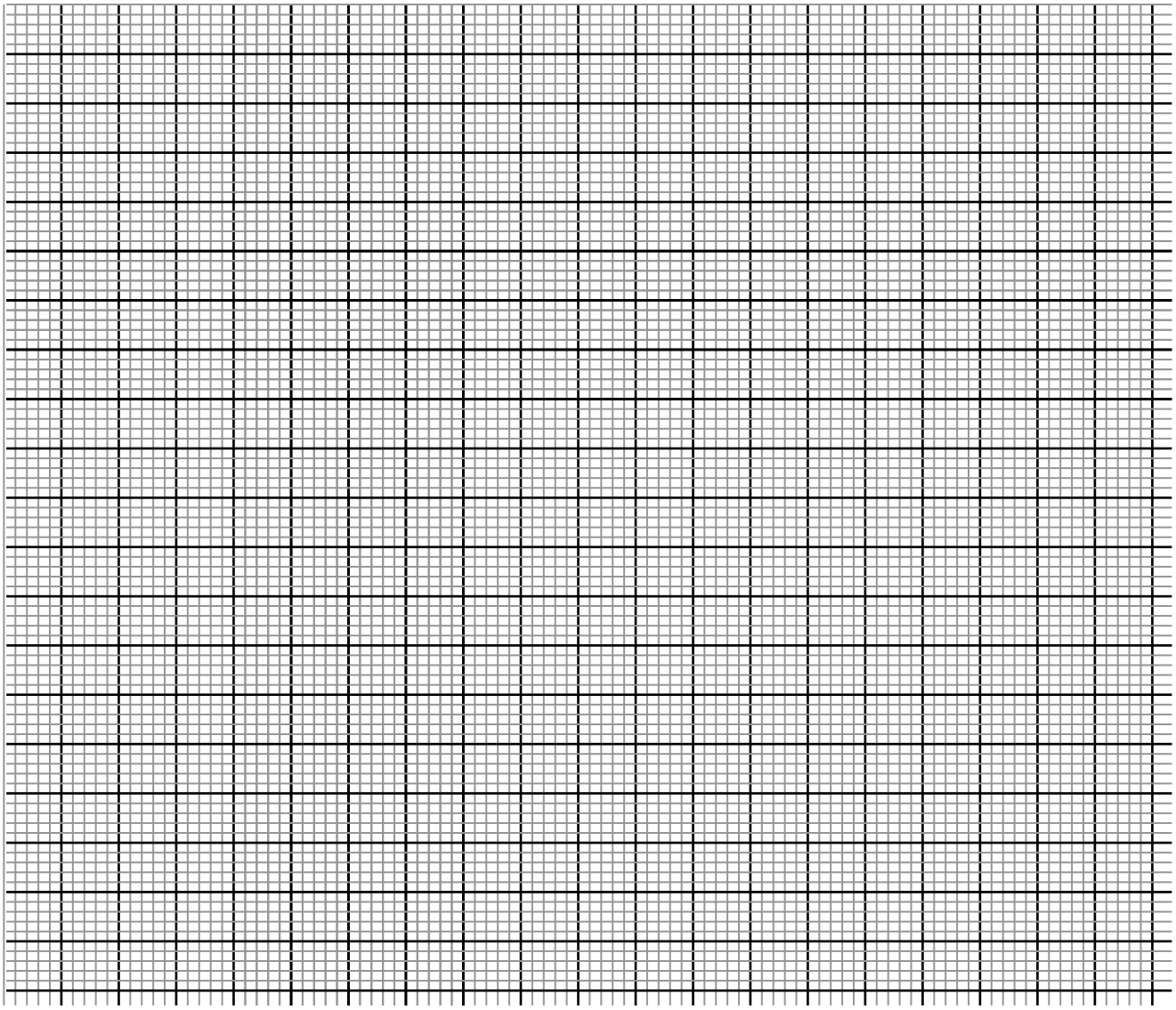
a) The radius of the circle**.** **(6 marks)**

b) The area of the shaded parts**.** **(4 marks)**

24. In an experiment involving two variables t and r, the following results were obtained.

t	1.0	1.5	2.0	2.5	3.0	3.5
r	1.50	1.45	1.30	1.25	1.05	1.00

a) On the grid provided, draw the line of best fit for the data. **(4 marks)**



b) The variables r and t are connected by the equation $r = at + k$ where **a** and **k** are constants.

Determine;

i. The values of **a** and **k**. **(3 marks)**

ii. The equation of the line of best fit**.** **(1 mark)**

iii. The value of t when $r = 0$. **(2 marks)**

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

HOME SCIENCE

441/1

PAPER 1

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

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 THREE SECTIONS, A, B AND C*
4. *Answer all the questions in Section A and B and any 2 questions from Section*
5. *Answer must be written in the spaces provided in the question paper.*
6. *Additional pages must NOT be inserted.*

EXAMINERS USE ONLY

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1-20	40	
B	21	20	
C	22	20	
	23	20	
	24	20	
TOTAL SCORE		100	

SECTION A- (40MKS)

Answer All The Questions In This Section In The Spaces Provided.

1. State two important rights that each consumer should be aware of:- **(2mks)**

……

……

……

2. Name two groups of synthetic fibres **(2mks)**

……

……

3. Mention two methods used to coat food before frying. **(2mks)**

……

……

4. State two qualities of a well- made dart **(2mks)**

……

……

5. Name four foods that can be given to a child in the management of Kwarshiokor **(2mks)**

……

……

……

……

6. Name two seams commonly used when joining side seams of trousers made of heavy fabric **(2mks)**

……

……

……

7. State two points to look for when buying a seam **ripper** **(2mks)**

……

……

8. Name two surfaces that are cleaned by **scrubbing.** **(2mks)**

……

……

9. List down two uses of takum powder when applied on the **feet.** **(2mks)**

……

……

10. State two dangers of smoking during **pregnancy .** **(2mks)**

……

……

11. Point out two reasons for lining a cake tin**.** **(2mks)**

……

……

……

12. Which two reasons make stainless steel unsuitable for cooking food**?** **(2mks)**

……

……

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13. In two well stated points say why babies who are fed on formula diarrhoea (**2mks)**

……

……

……

14. Mention two advantages of having labels on consumer **products.** **(2mks)**

……

……

15. Two good qualities of a well made sleeve include.:-

……

……

……

16. Point out two advantages of habit training. **(2mks)**

……

……

17. Suggest four ways of decorating an **apron** **(2mks)**

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18. List down two important uses of opening on **garments.** **(2mks)**

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19. State four different forms in which laundry is found. **(2mks)**

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20. Give two advantages of using soft water for laundry **work.** **(2mks)**

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Section B (Compulsory) 20mks

You have been left at home on a Saturday afternoon and are expected to carry out some tasks.

a) Explain how you will clean a neglected brass ornament. (**6mks)**

b) Weekly- cleaning of a hurricane lamp. **(6mks)**

c) Laundering your school acrylic sweater. O**R** **(8mks)**

White cotton table- cloth with a fresh tea stain.

Section C. (40mks)

Answer any two questions from this section

22 (a) Outline five reasons for finishing plain wooden surfaces. **(5mks)**

(b) Suggest five practices that are harmful to woolen article**s.** **(5mks)**

(c) List down Five activities at the antenatal clinic. **(5mks)**

(d) Explain five qualities of a good waistband. **(5mks)**

23. (a) State and explain on five differences between cotton and polyester fabrcs**.** **(10mks)**

(b) Point out five requirements of a good kitchen floor**.** **(5mks)**

(c) Outline five qualities to look for when purchasing labour saving cleaning equipment **(5mks)**

24. (a) State at least five remedies of needle breaking when machining. **(5mks)**

(b) Briefly and in point form discuss five disadvantages of convenience foods**.** **(5mks)**

(e) Explain five modern methods of food preservation. **(5mks)**

(d) Using relevant diagrams, give the procedure for making a French seam on the side seam for a child's dress.

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

HOME SCIENCE

441/2

PAPER 2

TIME: 2½ HOURS

SCHOOL…… SIGN……

Kenya Certificate of Secondary Education.

441/2

Home science

(clothing construction)

Paper 2

Practical

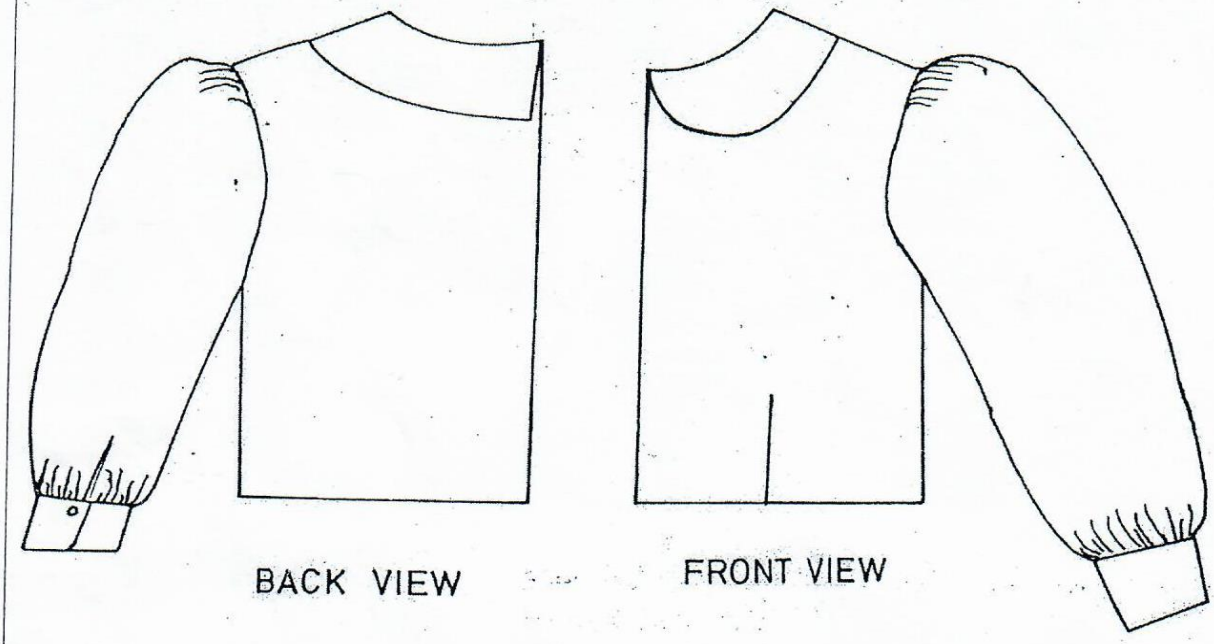
CONFIDENTIAL

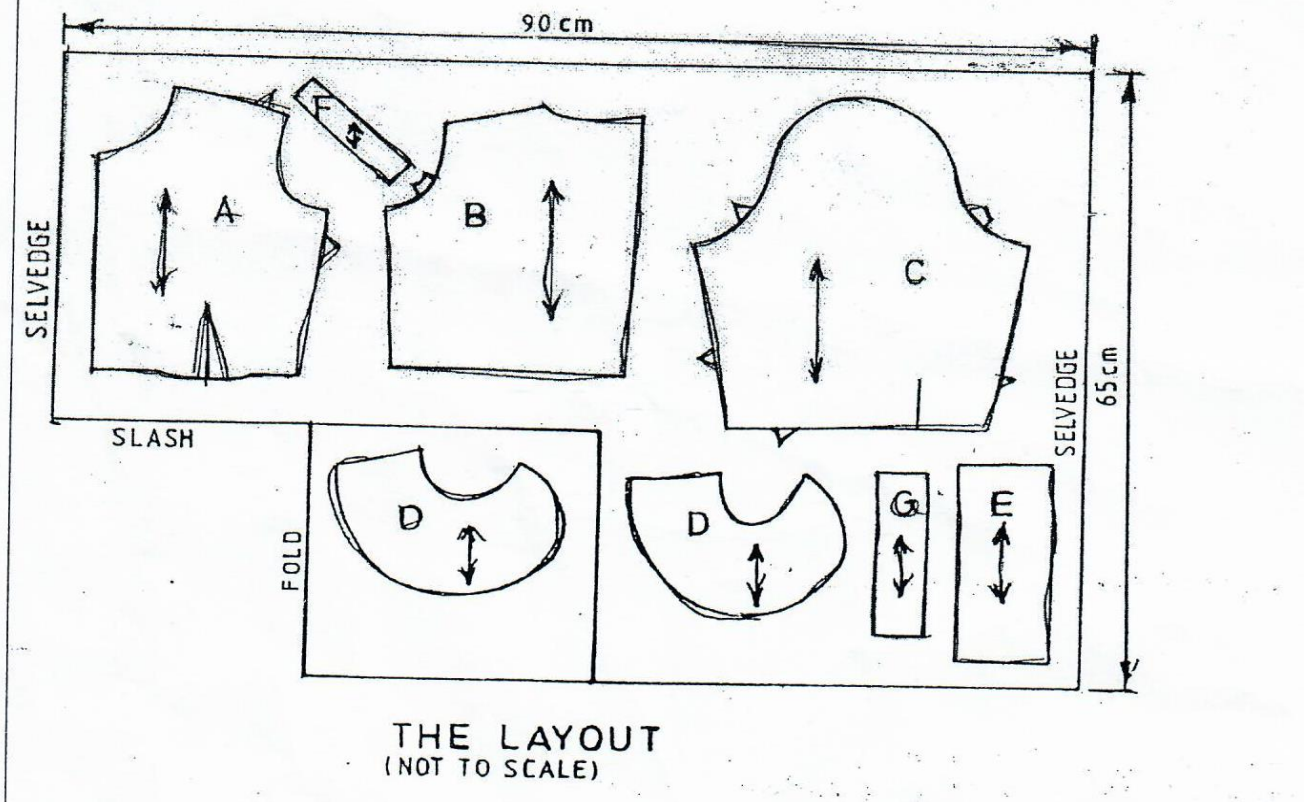
Provide each student with the following

1) 65 cm by 90 cm wide light weigh cotton fabric.

2) Sewing cotton thread to match the fabric

3) One button 1 cm in diameter.





THE LAYOUT
(NOT TO SCALE)

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

HOME SCIENCE

441/2

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… **SIGN……**

INDEX NO…… **ADM NO……**

Kenya Certificate of Secondary Education.

441/2

Home science

(CLOTHING CONSTRUCTION)

PAPER 2

PRACTICAL

2 ½ HOURS

A Pattern of a child's dress is provided. You are advised to study the sketches, the questions paper and the layout before the test.

1. MATERIALS PROVIDED

Pattern pieces

A Front bodice
B Back bodice
C sleeve
D Collar
E cuff
F Neck binding
G Sleeve opening strip

N.B Use pattern piece D to cut interfacing for collar.

2. Light weight plain cotton fabric 65cm long by 90 cm wide.

3. Sewing cotton thread to match the fabric

4. One button 1 cm in diameter.

THE TEST

Using the materials provided , cut and make the left half of child's dress bodice to show the following:-

1) The working of the waist dart

2) The working of a machine fell seam at the shoulder and French seam at the side and under arm seams.

3) Preparation of an interfaced collar and attaching it to the bodice.

4) The making of the continuous straight strip opening at the sleeve.

5) Attaching of the sleeve cuff

6) The preparation and attaching of the sleeve to the bodice and leaving the seam untrimmed and un neatened.

7) The making of the button hole

8) The attaching of the button.

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 carefully and place it in the envelope provided.

DO NOT put scraps of fabric in the envelope.

FOR MARKING SCHEMES CONTACT 0746-222-000 / 0742-999-000

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

HOME SCIENCE

441/3

PAPER 3

TIME: 1¾ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

HOMESCIENCE

FOOD AND NUTRITION

PAPER 3 (PRACTICAL)

1 ¾ HOURS

INSTRUCTIONS TO CANDIDATES

- *Read the test carefully*
- *Textbooks and recipes may be used during the planning session as reference materials*
- *You will be expected to keep to your order of work during the practical session*
- *You are only allowed to take away your reference materials at the end of the planning session*
- *You are not allowed to bring additional notes to the practical session.*
- *Candidates should check the questions paper to ascertain that no page is missing*

FOR MARKING SCHEMES CONTACT 0746-222-000 / 0742-999-000

THE TEST

You are left with your cousin who has been discharged from hospital. Using all the ingredients provided below, prepare, cook and present a two course lunch for both of you.

Ingredients
Liver/ chicken/ minced beef.
Rice/ green bananas/ Irish potatoes
Green leafy vegetables
Sugar
Green pepper
Onions
Tomatoes
Carrots
Cooking fat/ oil
Salt
Fruits in season

Use separate sheets of paper for each task listed below and a carbon paper to make duplicate copies

i) Identify the food items & write down their recipe.

ii) Write down your order of work

iii) Make a list of food stuffs, materials and equipments you will require

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

COMPUTER STUDIES

451/1

PAPER 1

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

- *This paper consists of **2** sections **A** and **B**.*
- *Answer all the questions in sections **A***
- *Answer question **16** and any other **three** questions from section **B***

For Examiners Use Only

Section	Question	Score
A	1 - 15	
B	16	
	17	
	18	
	19	
	20	
	Total marks	

SECTION A (40 MARKS)

1. State two practices to be observed in order to ensure the safety of the computer user **(2mks)**

……

……

……

2. State the function of the following keys on the computer key board **(2mks)**

(a) Insert……

……

(b) Delete……

……..

3. Name three responsibilities that are carried out by a network administration **(3mks)**

……

……

……

4. List and describe three guidelines that should be followed when conducting an interview during information gathering **(3mks)**

……

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……

……

……

……

5. (a) Define portability as used in software selection **(1mk)**

……

……

(b) List four ways of acquiring software in an organization **(2mks)**

……

……

……

……

6. (a) Subtract 110_2 from 11010_2 **(1mk)**

(b) Find the sum of binary number 101.101_2 and 110.100_2 **(1mk)**

(c) Convert binary number 11010110.1001_2 into octal number. **(1mk)**

7. List three uses of DVDs **(3mks)**

……

……

……

……

8. State the function of each of the following

(a) Network Interface Card **(1mk)**

……

(b) Modem **(1mk)**

……

(c) Repeaters **(1mk)**

……

9. How does an operating system manage computer memory **(2mks)**

……

……

……

10. List four factors to be considered when purchasing an operating system **(2mks)**

……

……

……

……

11. Write a PSEUDO CODE to compute the area of a circle **(2mks)**

12. (a) List three ways by which you can provide a common link or relationship between the tables in a database software **(3mks)**

……

……

……

……

(b) What is referential integrity **(1mk)**

……

……

13. List four types of publications that ca be designed using DTP software **(2mks)**

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……

14. (a) List four stages in data collection **(2mks)**

……

……

……

……

(b) What is meant by the following **(2mks)**

(i) Reference file

……

……

(ii) Report

……

……..

15. Explain the following terms **(2mks)**

(a) Computer fraud

……

……

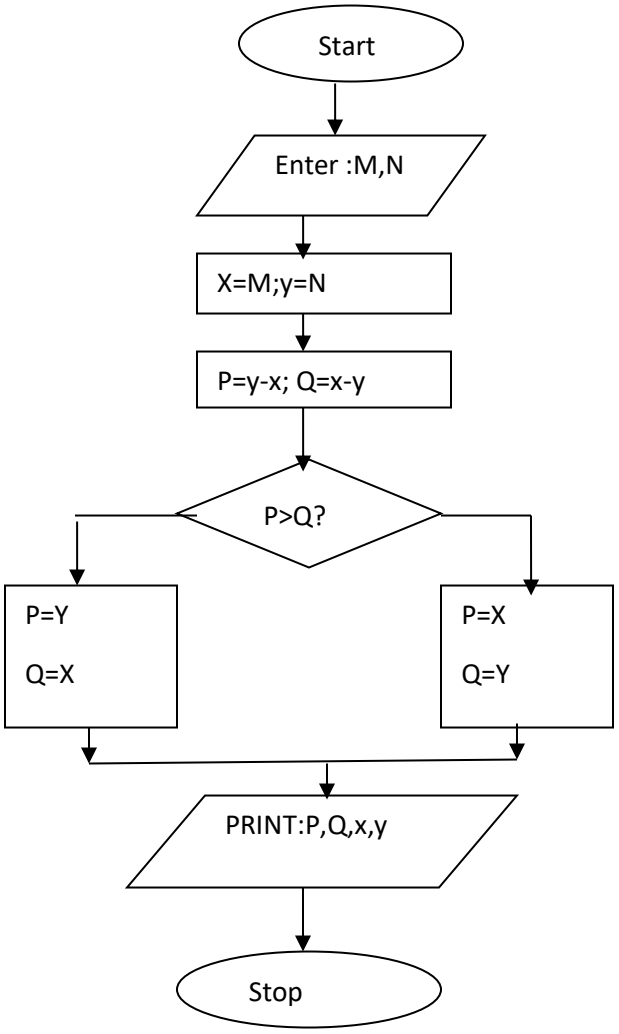
(b) Alteration

……

……

SECTION B (Answer question 16 and any other three questions from this section)

16. Study the flowchart below and answer the questions that follow.



(b) Name the control structure shown in the flow chart **(2mks)**

……

(c) Assuming the user keys in 8 and 14 when prompted to enter values for M and N respectively, determine the printed values of P,Q,x and y **(4mks)**

(d) Write a pseudo code that would be used in place of the flowchart**.** **(9mks)**

17. (a) List three advantages and three disadvantages of fibre optic cable **(6mks)**

Advantages

Disadvantages

(b) Describe the following signals and state where each is applied in network communication. **(4mks)**

Analog

Digital

(e) Name two types of coaxial cables (**2mks)**

(f) (i) Distinguish between microwave and satellite transmissions **(2mks)**

(ii) Give an example of internet protocol **(1mk)**

18. The information below is maintained by the sales lady at the school canteen. Study it and answer the questions that follow.

	A	B	C
1	Item	units (kg)	value (ksh)
2	oranges	12	2000
3	mangoes	13	1000
4	tomatoes	12	1400
5	cabbages	15	2500

(a) Describe the basic data types used in this spreadsheet **(4mks)**

(b) Provide a single formula that would be used to

(i) Count the number of items whole units are equal; to 15 **(2mks)**

(ii) Sum the values of items whole units are equal to 12 **(2mks)**

(c) (i) :List and describe four areas of application of spreadsheets **(4mks)**

(ii) Explain data range legend and axis as used in spreadsheet **charts** **(3mks)**

19. A computer diskette in drive A has folders for MEMOS for an administrator. Each of these folders is labelled according to the relevant months. The secretary created the folders for each months memo for each of access.

Study the table below

MEMO 1	MEMO 2	MEMO 3
Warning	Inaccuracies	Careless talk
Lateness	Auditing	Inefficient
Assembly	Fraud	Meeting

(a) Assuming that the secondary was working from the diskette, draw the corresponding tree structure **(6mks)**

(b) (i) The secretary wanted to create a folder to store a memo in Fraud folder. State the path for that folder **(2mks)**

(ii) Suggest how the secretary can ensure that the work in that diskette is not spoilt **(1mk)**

(iii) The content of the file is not viewed by any other person apart from h**er.** **(1mk)**

(c) (i) List any two devices under the control of the operating system **(2mks)**

(ii) Explain how each one of these devices are controlled by the OS

20. (a) List and describe four strategies for converting from an old system to a new system **(4mks)**

(b) (i) Distinguish between private data and confidential data **(2mks)**

(ii) What can be done to stop illegal access to a computer laboratory by unauthorized people **(3mks)**

(c) (i) List four areas that would be considered in the requirement specification **(4mks)**

(ii) Name any two areas covered in a feasibility report during system analysis and design. **(2mks)**

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

COMPUTER STUDIES

451/2

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

Instructions to candidates:

- *This paper has **TWO** questions.*
- *Answer all the questions.*
- *Type your name and index number at the right-hand corner of each printout.*
- *Write your name and index number on the CD – ROM provided.*
- *Write the Name and version of software used in each question attempted in the answer sheet.*
- *Passwords **should not be used** while saving your work.*
- *Make a printout of the answers on the answer sheets provided.*
- *Arrange your print outs and stable them together.*
- *Hand in all the **printouts** and the CD – ROM provided.*

1. a) Type and format the following document as it appears using a Word processor. Save it as TELE1 (40marks)

TELE AND VIDEO CONFERENCING

The advent of the information and communications technology has brought with it several advantages that need to be made use of by both the public and private sector. Not only are those technologies convenient but some are also cost effective.

ven though most of the communications technologies are currently widely in use -Mobile telephones and internet -one area that needs seriously to be explored and utilized by both government institutions and private sector is tele and video conferencing.

Government and private sector need to take advantage of the facilities offered by tele and video conferencing

During the February 1 launch of the ‘ Just Like Home’ seamless network by the region’s three main mobile phone providers, Safaricom, MTN Uganda and Vodacom Tanzania, the celebration were held in the three Different countries at different times of the same day.

Nothing wrong with that only that the chief Executive of the three firms were meant to be present at all the functions. I say ‘Were meant to’ because I only attended the Nairobi launch.

After the Kenya launch, held at Nairobi’s Serena hotel over breakfast from 7am, the three CEO’s, (Safaricom’s Bob Collymore, MTN’s Noel Meier and Vodacom Tanzania’s Romeo Kumalo) were to proceed to the other two launches. These were first the Tanzania launch at lunch time and finally, the Uganda dinner launch in kampala

Imagine all the travelling involved and the resultant fatigue for the three firms, Plus others who were part of the retinue.

Even though one would.

Argue that the travelling to all three countries Was necessary as there were pape5rs to be signed,

Reliable sources tell me that a formal exercise. Everything else, including the paper work and Memoranda of cunderstanding had already been signed.

The second instance when holding a video conferencing would have been more ideal was recently when Ethiopia’s premier Meles Zenawi made a few hours visit to Nairobi to discuss the Somalia crisis with the former president Kibaki.

b) Insert the following formula which is used to compute the percentage growth of a particular mobile phone provider in a region (4marks)

$$V(x) \leq \left[K + \sum_{j=1}^{n} cue^{-Auj} + V(x+u) \right]$$

c) The following table shows the percentage growth of the three mobile phone providers in two periods of six months in the year 2011,2012 and 2013. Include it exactly as it is formatted in the passage just below the formula. Create a formula to calculate the total percentage growth over the three years for each period.

(5marks)

Years	Safaricom		MTN		Vodacom	
	Period 1	Period2	Period 1	Period 2	Period 1	Period 2
2011	10	7	12	6	5	8
2012	20	9	20	3	28	67
2013	10	9	7	39	17	1
TOTALS						

d) Print **TELE1.** (1marks)

2. a) i) Create a Worksheet with the following entries and save the workbook as **NOMA**. (12marks)

OMBAHEKIMA ACADEMY				
FORM THREE END EXAM MARKS				
STUDENT NAME	ENGLISH	KISWAHILI	MATHEMATICS	HISTORY
Ayuku Aseka	70	60	40	50
Irungu Wambua	50	70	60	40
Khalifa Mudigo	80	40	50	60
Nosieta Soita	30	75	60	50
Onyango Otieno	40	55	70	60

ii) Adjust column width where necessary to display all entries in details. Validate the cells to accept ONLY numerals between 0-100 and return a comment **"please enter a number between 0 and 100"**

Whenever an out of range error occurs.

(3marks

iii) Rename sheet 1 as MARKS1.

(2marks

b) Obtain the following:

i) Total score for each student

(2marks)

ii) Mean score for each student

(2marks)

iii) Highest score per subject

(2marks)

iv) Standard deviation per subject **(2marks)**

v) Rank for each student **(3marks)**

vi) Grade the students using the grade for each student based on the following information.

(4marks)

MEAN GRADE	
75-100	A
60-74	B
50-65	C
35-49	D
0-34	E

b) Copy contents of Sheet 1 to sheet 2 and rename it as MARKS2. **(2marks)**

c) Insert a new row for Chege Kisilu between Ayuku Aseka and Irungu Wambua. Enter his scores as 60, 50, 80, and 20. **(3marks)**

d) Copy contents of sheet 1 to sheet2 and rename it as MARKS3. Format the ranges with value for mean score and standard deviation to display results to 3 decimal places. **(4marks)**

e) Generate a graph to compare Mathematics performance and save it in a new sheet as MATHSG.5marks

F) Print MARKS 1, MARKS2, MARKS3 and MATHSG. **(4marks)**

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

ISLAMIC RELIGIOUS EDUCATION

314/1

PAPER 1

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

314/1

ISLAMIC RELIGIOUS EDUCATION

Paper 1

2 ½ hours

INSTRUCTIONS TO CANDIDATES

a) *Write your name, school and index number in the spaces provided above.*

b) *Write the date of examination and sign in the spaces provided above.*

c) *This paper consists of **six** questions.*

d) *Answer any **five** questions in the answer booklet provided.*

FOR EXAMINER'S USE ONLY

Question	1	2	3	4	5	6	TOTAL SCORE
Candidates Score							

1. **a)** Sura al Hujurat lays rules on how Muslims should solve their disputes relative with each other. Causes of conflicts in the society according to the Sura. **(5x2 marks)**

   b) Giving relevant examples identify five styles used by Allah to convey His missing message in the Qu ran. **(5x1marks)**

   c) Reasons why some Muslims find it difficult to read the Qu an regularly.**(5x1 marks)**

2. **a)** Circumstances under which Suratul fill was revealed. **(7x2 marks)**

   b) Problems encountered in the standardization of the Qu an during the reign of caliph Uthman. **(6x1 marks)**

3. **a)** How Hadith has influenced the Muslim's way of life. **(5x2 marks)**

   b) Subject content of Imam Malik's Al-muwatta **(5x1 marks)**

   c) Views of prophet Muhammad (S.A.W) on envy and jealousy. **(5x1 marks)**

4. **a)** Significance of visiting Madina after Hajj or Umra. **(6x1 marks)**

   b) Conditions for acceptable Tawbah. **(6x1 marks)**

   c) Types of Saum according to the teachings of Islam **(4 x2 marks**

5. **a)** Reasons for emergence of Madha hibb in Islam **5x2 marks)**

   b) Examples of ijma practiced by the rightly guided Caliphs. **(5x1 marks)**

   c) Favors granted to a Muslim traveler **(5x1 marks)**

6. **a)** Why Qadhaa is not Qadr

   b) Discuss Proofs of the occurrence of the Day of Judgment. **(5x2 marks)**

   c) Incident of Ghadir- khum according to the Shia. **(5x2 marks)**

FOR MARKING SCHEMES CONTACT 0746-222-000 / 0742-999-000

KCSE JOINT MOCK EXAM

2023 SERIES 1 TRIAL

ISLAMIC RELIGIOUS EDUCATION

314/2

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

314/2

ISLAMIC RELIGIOUS EDUCATION

Paper 2

2 ½ hours

INSTRUCTIONS TO CANDIDATES

a) *Write your name, school and index number in the spaces provided above.*

b) *Write the date of examination and sign in the spaces provided above.*

c) *This paper consists of **six** questions.*

d) *Answer any **five** questions in the answer booklet provided.*

FOR EXAMINER'S USE ONLY

Question	1	2	3	4	5	6	TOTAL SCORE
Candidates Score							

1. **a)** Explain the rationale behind the prohibition of slander in Islam. **(8mks)**

   b) state the wisdom behind the prohibition of zina in Islam. **(7mks)**

   c)Highlight **FIVE** advantages of practicing the virtue of Qana'a(contentment) **(5mks)**

2. **a)** state the benefits of writing a will before a Muslim die**.** **(7mks)**

   b) state the Islamic teachings that married couples can adopt to avoid Talaq(divorce). **(7mks)**

   c) state **SIX** causes of corruption in Kenya. **(6mks)**

3. **a)** Explain ways through which Muslims can co-exist peacefully with non-Muslims. **(8mks)**

   b) state the effects of riba on Muslim. **(7mks)**

   c) highlight **FIVE** Islamic teachings on acquisition of wealth. **(5mks)**

4. **a)** Explain ways in which Muslim city sates facilitated spread of Islam in the East coast of Africa between 1700-1900. **(8mks)**

   b) Explain factors that led to the decline of the Banu Abbas**.** **(7mks)**

   c) State **FIVE** achievements of the fatimids. **(5mks)**

5. **a)** Gives reasons why sayyidna Abubakar was elected Khalifa. **(7mks)**

   b) Explain **FOUR** factors that led to the battle of badr. **(8mks)**

   c)State **FIVE** lessons we learn from Sheikh Swalel Abdallah Farsy. **(5mks)**

6. **a)** Discuss **FIVE** achievements of sheikh sayyid Qutub **(5mks)**

   b) State **FIVE** lessons we can learn from imam Ghazali's rules of Conduct. **(5mks)**

   c) Briefly describe sheikh Al Amin Al Mazrui. **(5mks)**

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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

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