MOKASA 2024 JOINT MOCK

ALL SUBJECTS

A Joint Moi Girls, Kabarak & Sacho High Annual Mock Examination Trial for the Current KCSE 2023 Candidates.

SUBJECTS TESTED;

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

SERIES 2

For Marking Schemes

Mr Isaboke 0746 222 000 / 0742 999 000

MWALIMU CONSULTANCY

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

231/1

BIOLOGY

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 admission number in the spaces provided above.*
b) *Sign and write the date of the examination in the spaces provided.*
c) *Answer all the questions in this question paper.*
d) *Answers must be written in the spaces provided*
e) *Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.*
f) *Candidates should answer all the questions in english.*

FOR EXAMINER'S USE ONLY

Question	Maximum Score	Candidate's Score
1 – 29	80	

1. The table below shows concentration of some minerals inside the cells of a water plant and in the surrounding water.

Mineral	Sodium	Magnesium	Calcium
Cell sap	631	202	318
Surrounding water	28	293	47

a) Name the process by which magnesium is taken up by the plant. **(1mrk)**

……

b) Explain why maize plant take up calcium minerals quicker in well aerated soils than in water logged soil**.** **(3mrks)**

……

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……

2. Give a reason why a mature plant cell does not lose its shape even after losing water. **1mrk)**

……

……

3. i) State the function for co-factors in cell metabolism. **(1mrk)**

……

……

ii) Give one example of a metallic co – factor**.** **(1mrk)**

……

4. Name the features that increase the surface area of the small intestines**.** **(2mrks)**

……

……

……

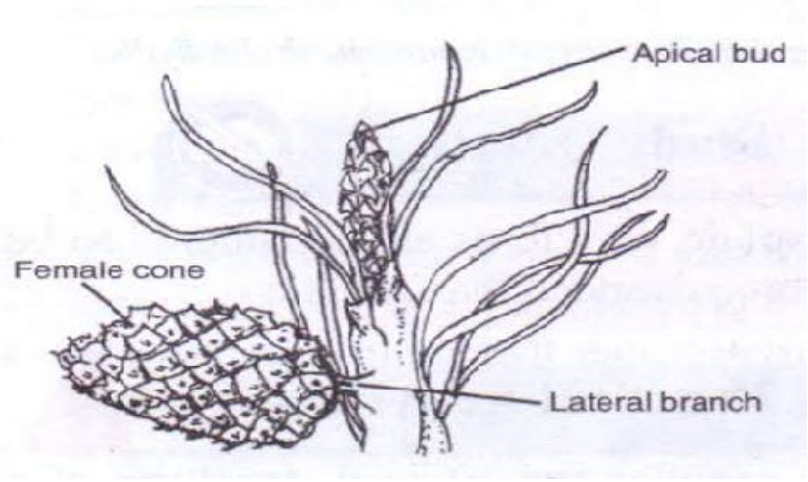
5. a) Name three characteristics that are used to divide the members of phylum Arthropoda into classes**.** **(3mrks)**

……

……

……

b) The diagram below represents a certain plant species.



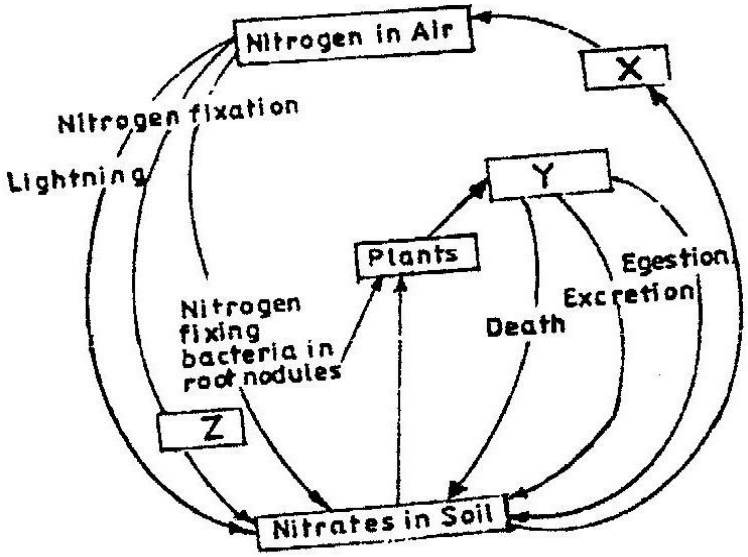
i) State the class to which the plant belongs**.** **(1mrk)**

……

ii) State one observable xerophytic characteristic seen in the diagram above?. **(1mrk)**

……

6. The chart below represents a simplified nitrogen cycle.



What is represented by **X, Y and Z. (3mrks)**

X……

Y……

Z……

7. People can die when they inhale gases from aburning charcoal stove in a poorly ventilated room. What compound is formed in the human body that lead to such deaths?. **(1mrk)**

……

8. Explain why blood from a donor whose blood group is A cannot be transfused into a recipient whose blood group is B. **(2mrks)**

……

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……

……

9. In an experiment, a student covered one of the leaves of a potted plant on both upper and lower surfaces with blue cobalt chloride paper. The plant was exposed outside for 45 minutes.

Observation: The cobalt chloride on the undersurface of the leave changed into pink in the first 20 minutes only as the upper surface remained blue. However at the end of the experiment, after 45 minutes, the upper surface also turned pink.

i) State the aim of the experiment. **(1mrk)**

……

ii) Give one significance of the results obtained. **(1mrk)**

……

10. When transplanting seedlings, it is advisable to remove some leaves. Explain **(1mrk)**

……

……

11. a) Describe the path taken by carbon (IV)oxide released from the tissue of an insect to the atmosphere**.** **(3mrks)**

……

……

……

……

b) Name two structures for gaseous exchange in plants. **(2mrks)**

……

……

c) What is the effect of contraction of the diaphragm muscles during breathing in mammals?**(2mks**

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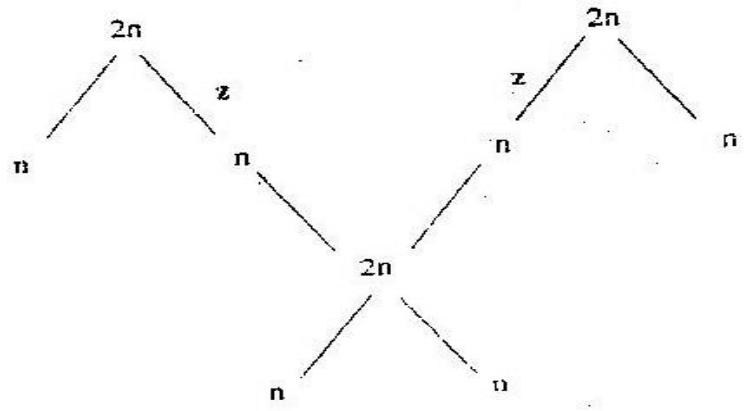
……

12. The chart below shows the number of chromosomes before and after cell division and fertilization in a mammal.



a). What type of cell division takes place at **Z.** **(1mrk)**

……

b) Where in the female body of humans does process **Z occur?.** **(1mrk)**

……

……

c) Name the process that leads to addition or loss of one or more chromosomes. **(1mrk)**

……

13. State three benefits of polyploidy in plants to a farmer. **(3mrks)**

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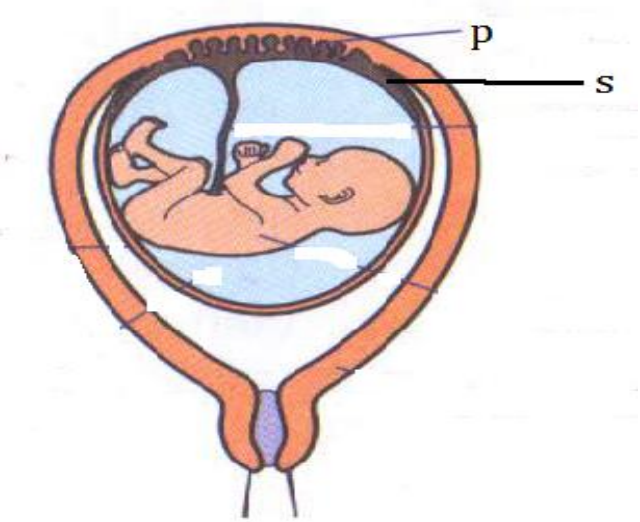
14. The diagram below represents human foetus.



a) Name the part labelled **S** **(1mrk)**

……

b) Give the roles of structure **P in;** **(2mrks)**

i) Nutrition.

……

……

ii) Protection.

……

……

d) What is the function of the following in the human male reproductive system?. **(2mrks)**

i) Epididymis.

……

……

ii) Scrotal sac.

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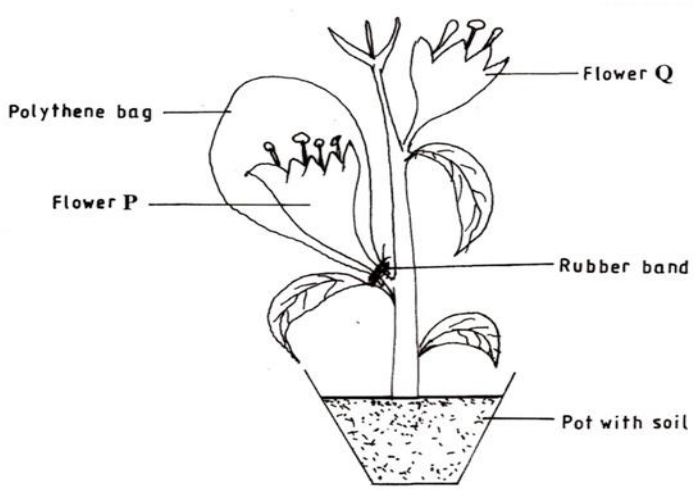
……

15. The diagram represents an experimental set up used by students to investigate a certain process.



Flower Q produced seeds, while P did not. Account for the results **(3mrks)**

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16. Name any two branches of microbiology**.** **(2mrks)**

……

……

17. Which biological tool would a scientist require to collect rats to be used for study? **(1mrk)**

……

18. Distinguish between magnification and resolution as used in microscopy**.** **(1mrk)**

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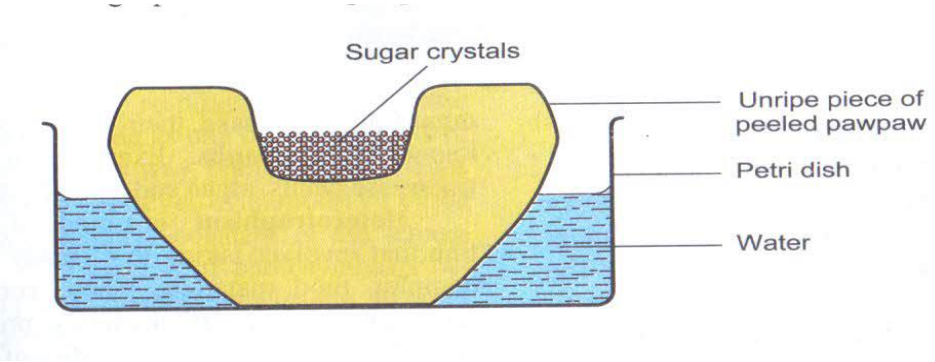
19. A group of students set up an experiment to investigate a certain physiological process.The set up was as shown below.



a) Name the physiological process being investigated. **(1mrk)**

……

b) Account for the formation and rise in the level of sugar solution at the end of the experiment.

(3mrks)

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……

20. The scientific name of a blackjack is <u>bidens pilosa.</u> Identify two mistakes in the written name.

(2mrks)

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……

21. State two advantages of natural selection to organisms. **(2mrks)**

……

……

22. a) Give two ways in which sexual reproduction is important in the evolution of plants and animals**.** **(2mrks)**

……

……

……

b) Explain why it is only mutations in genes of gametes that influence evolution **(1mrk)**

……

……

23. Give the role of the following hormones during menstrual cycle. **(3mks)**

a) Follicle stimulating hormone.

b) Oestrogen.

c) Luteinizing hormone.

24. The chart below represents the result of successive crosses, staring with red- flowered plants and white flowed plants and in which both plants are pure breeding.

Parental genotypes: Red flowers x white flowers

↓

First filial generation

Selfed ↓

Second filial generation

3 red flowers: 1 white flower

Phenotypic ratio 3: 1

(a) What were the parental genotypes? Use letter R to represent the gene for red colour and r for white colour**.** **(1mrk)**

……

……

……

……

……

(b) (i) What was the colour of the flowers in the first filial generation?. **(1mrk)**

……

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

……

……

……

(c) What is a test- cross?. **(1 mark)**

……

……

……

25. a) Name two tissues in plants which are thickened with lignin. **(2 marks)**

……

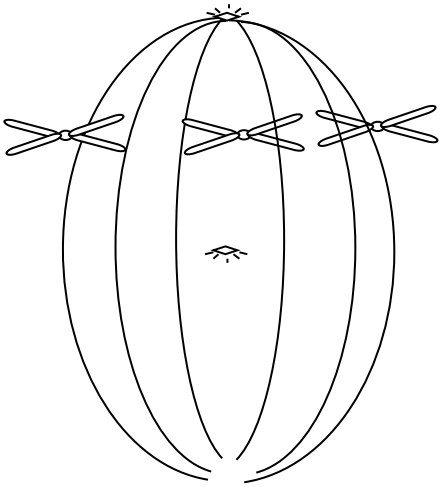
……

b) How is support attained in herbaceous plants? **(1 mark)**

……

……

26. The diagram below shows a stage of a certain type of cell division.



a) Identify the stage and type of the cell division the above cell is undergoing. **(2mks)**

……

……

b) State two importance of the above type of cell division. **(2mks)**

……

……

……

27. The photograph below shows the effects of certain pollutant in Nairobi dam. Study it carefully and use to answer the questions that follow.

i) Suggest the main pollutant in the dam **(1mark)**

……

ii) What are the possible effects of pollution illustrated in the photograph **(2mrks)**

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iii) Suggest one possible pollution control measure that can be put in place to save aquatic organisms in the dam. **(1mark)**

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28. In a capture-recapture exercise to estimate population size of dragon flies on a stretch of rivers, 250flies were first caught and marked. Two days later 500 flies were caught in the second capture and out of this, 50 flies had marks on their bodies. Estimate the population size of the flies. ***(show your working)*** **(3mks)**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

231/2

BIOLOGY

PAPER 2 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

- Write your **name,** class, and **Adm number** in the spaces provided above.
- Answer **ALL** the questions in the spaces provided.
- Answer all questions in Section A.
- In section B answer question 6 (compulsory) and either question 7 or 8.
- ***Students should check the question paper to ascertain that all the pages are printed as indicatedand that no questions are missing.***

FOR EXAMINER'S USE ONLY

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1 -5	40	
B	6 7/8	20 20	
	Total score	80	

1. a) State two adaptations of the amphibian's skin to gaseous exchange**.** **(2mks)**

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b) Explain how the human nasal cavity is adapted to gaseous exchange. **(3mks)**

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c) Explain why the amoeba does not acquire an elaborate gaseous system. **(2mks)**

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d) Name the respiratory disease caused by *Bordetella pertussis.* **(1mk)**

……

2. A man experienced non-disjunction during meiosis. If the woman he married had normal gamete formation process.

a) Work out the likely phenotypes of their off springs**.** **(4mks)**

b) State two characteristics of individuals with Down's syndrome**.** **(2mks)**

……

……

c) Give two advantages of transgenic plants**.** **(2mks)**

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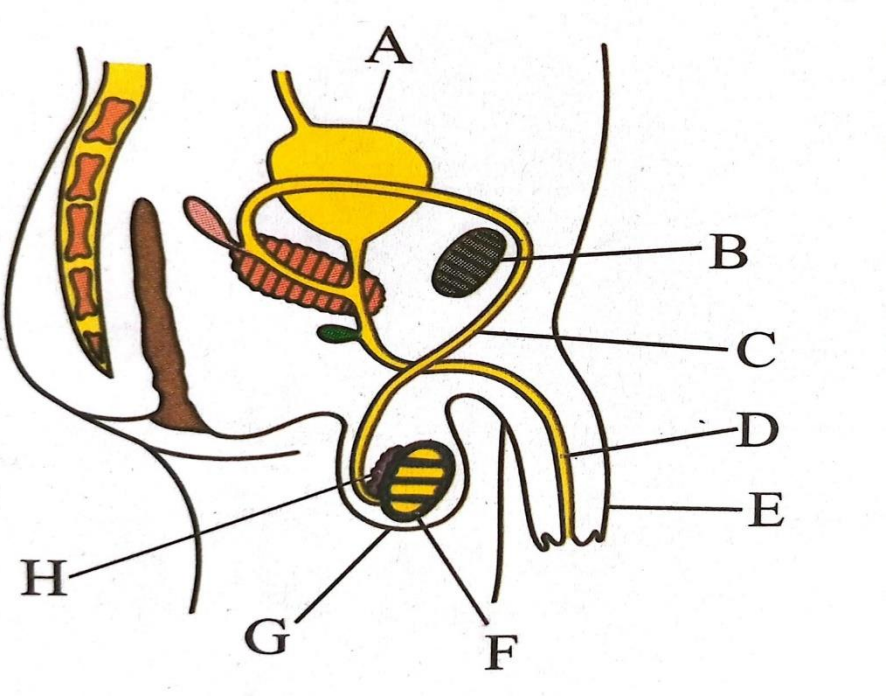
3. The diagram below is a side view of the human male reproductive system.



a) Name the parts labelled **D and G.** **(2mks)**

D-……

G-……

b) How are parts labelled E and H adapted for their functions? **(4mks)**

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……

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……

……

c) Give the names of two accessory sex glands and state their functions. **(2mks)**

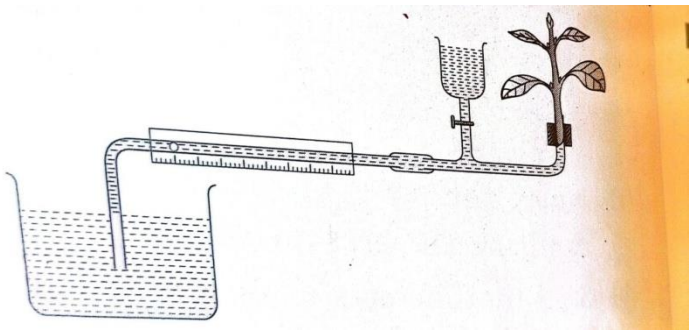
Accessory gland – ……

Function - ……

Accessory gland - ……

Function - ……..

4. The set up in the figure below was used to investigate a certain process in plants. Study it and answer the questions that follow.



a) Name the apparatus shown in the set up. **(1mk)**

……

b) Name the process that was being investigated. **(1mk)**

……

c) Explain what would happen to the air bubble in the capillary tube if the set up was placed in windy conditions. **(2mks)**

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d) Other than wind, state four environmental factors that influence the process that was under investigation. **(4mks)**

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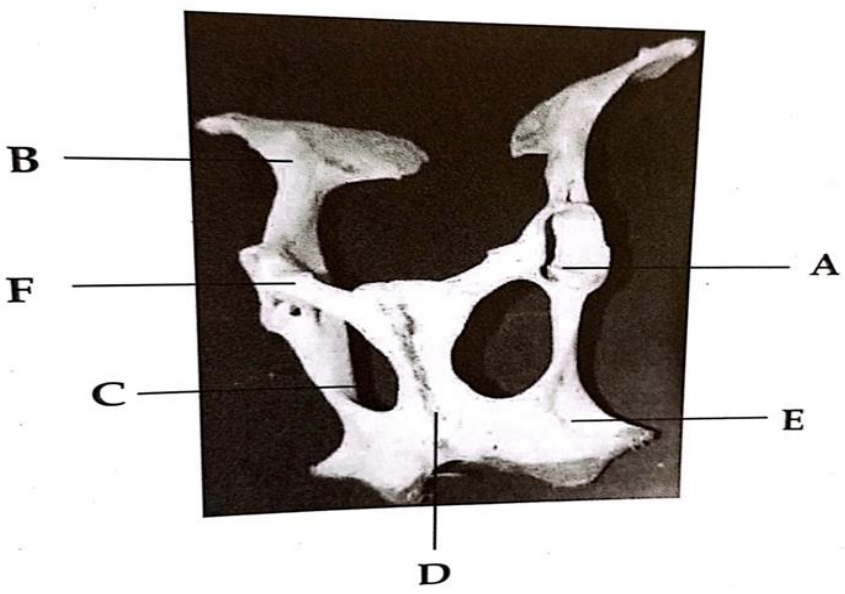
5. The diagram below represents a bone found on the lower part of the body.



a) Identify the bone. **(1mk)**

……

b) Identify the parts labelled E and F. **(2mks)**

……

……

c) Name and give the functions of the parts labelled A and C. **(4mks)**

……

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……

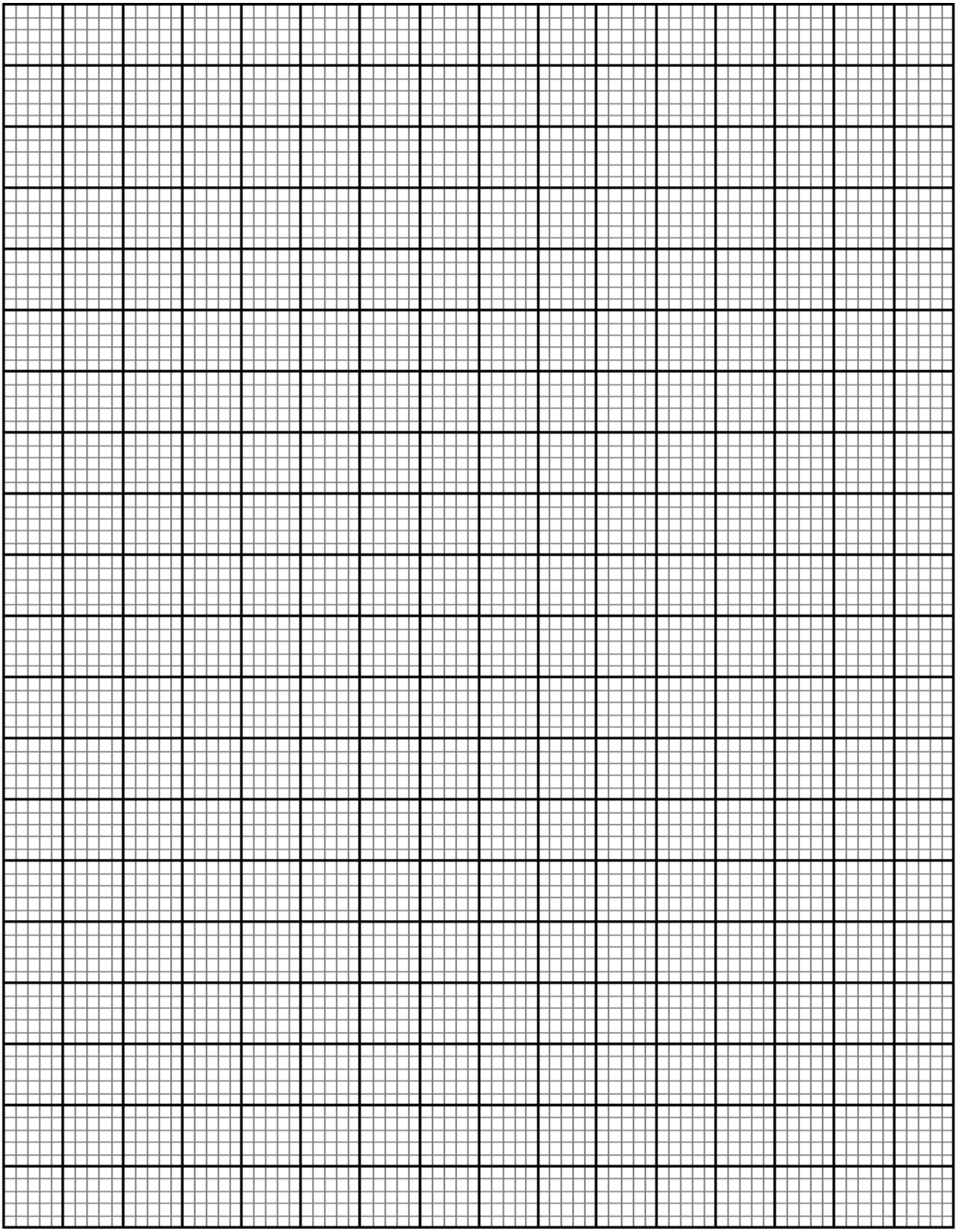
d) Name the material composing structure D. **(1mk)**

……

……

6. During germination and growth of cereal, dry weight of endosperm, embryo and total dry weight were determined at 2 days intervals and results recorded as shown below.

a) Using same axes, draw graphs of dry weight of endosperm, embryo and total dry weight against time. **(7mks)**



b) What was the total dry weight on the 5th day? **(1mk)**

……

c) Account for the:

i. Decrease in dry weight of endosperm from day 0 to 10. **(2mks)**

……

……

……

……

ii. Increase in dry weight of embryo from day 0 to 10th day. **(2mks)**

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iii. Decrease in total dry weight from day 0 to 8. **(1mk)**

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……

iv. Increase in total dry weight after the 8th day. **(1mk)**

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……

d) State two factors within the seed and two outside the seed that causes dormancy.

i. Within the seed. **(2mks)**

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……

……

ii. Outside the seed. **(2mks)**

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……

……

e) What are the characteristics of meristematic cells? **(2mks)**

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……

……

7. How is the mammalian ear adapted to its functions? **(20mks)**

8. Describe how free nitrogen in the air is made available to plants and carnivorous animals and finally circulated back into the atmosphere. **(20mks)**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

231/3

BIOLOGY

PAPER 3 (PRACTICAL)

TIME: 1¾ HOURS

SCHOOL…… SIGN……

(Kenya Certificate of Secondary Education)

CONFIDENTIAL INSTRUCTIONS TO SCHOOLS

The information contained in this paper is to enable the Head of the school and the teacher in charge of Biology to make adequate preparations for the Biology practical examination.NO ONE ELSE should have access to this paper or acquire knowledge of its contents. Great care MUST be taken to ensure that the information herein does not reach the candidate either directly or indirectly. The teacher in charge of Biology should NOT perform any of the experiments or give any information related to these instructions to the candidates.

Each student will require:

- Ripe banana (Fruit labelled K)
- Benedict's solution supplied with a dropper
- Sodium hydroxide solution supplied with a dropper
- Copper (II) sulphate solution supplied with a dropper
- Iodine solution supplied with a dropper
- Three test tubes
- Test tube holder
- Labels
- Means of heating
- Knife/Scalpels
- Beaker
- Distilled water in a wash bottle
- Mortar and pestle
- A ruler
- The photographs **SHOULD BE COLOURED**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

231/3

BIOLOGY

PAPER 3 (PRACTICAL)

TIME: 1¾ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

- *Answer all the questions in the spaces provided.*
- *You are required to spend the first 15 minutes of **1¾ hours** allowed for this paper reading the whole paper carefully before commencing your work.*
- *Candidates may be penalized for recording irrelevant information and for incorrect spelling especially of technical terms.*

FOR EXAMINER'S USE ONLY

QUESTION	MAX. SCORE	CANDIDATE'S SCORE
1	13	
2	12	
3	15	
TOTAL	40	

1. You are provided with a fruit labeled K. You are required to cut transversely through the middle section of the fruit using the knife provided.

(a) Cut a 1cm slice from one half of the fruit and remove the peel. Place the soft part of the fruit in a mortar and mash it into a fine paste using a pestle. Add 10ml of distilled water into the paste and stir the mixture, then transfer it into a beaker.

(b) Using the reagents provided, carry out appropriate food tests on the mixture as you fill in the table below. **(11 marks)**

Food substance	Procedure	Observation	Conclusion

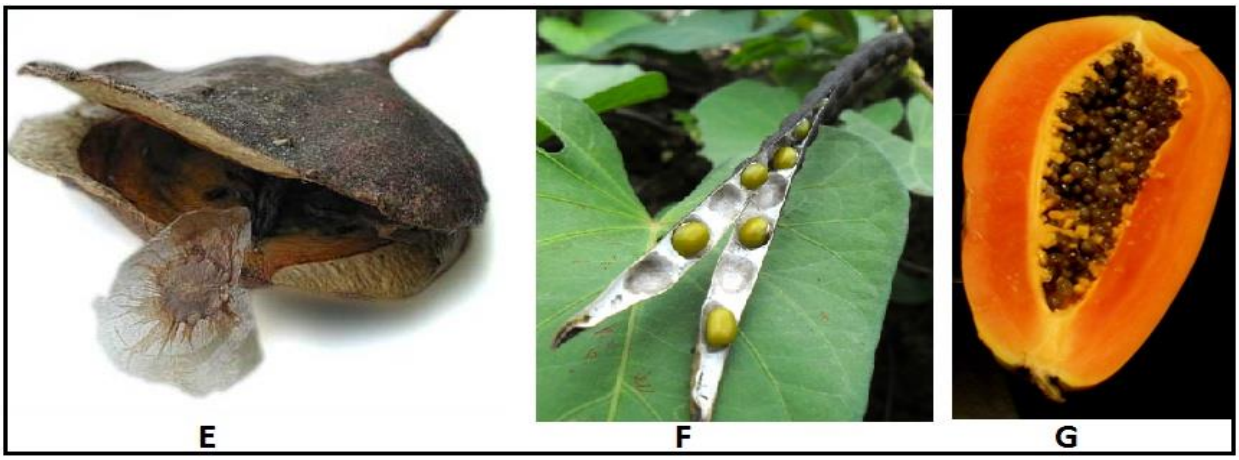
(c) Name the deficiency disease in children that may result from feeding them on specimen K alone especially after weaning. **(1 mark)**

……

(d) Identify the hormone responsible for ripening of the specimen K above. **(1 mark)**

……

2. The photographs below show various types of fruits.



(a) (i) State the mode of dispersal of the fruit in photograph E. **(1mark)**

……

(ii) Give a reason for your answer. **(1mark)**

……

……

(b) (i) What type of fruit is shown in photograph F? **(1mark)**

……

(ii) Give a reason for your answer. **(1mark)**

……

……

(iii) Explain how this fruit is suited to its mode of dispersal **(2 mrks)**

……

……

……

(c) (i) Name the type of fruit in photograph G. **(1mark)**

……

(ii) Give two reasons for your answer. **(2 marks)**

……

……

(iii) Name the type of placentation in this fruit. **(1mark)**

……

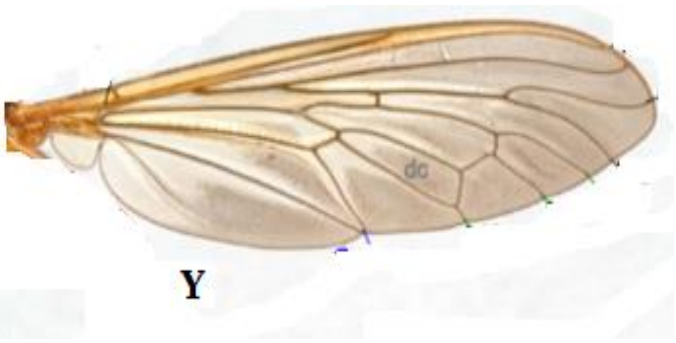
(iv) State two ways in which the fruit is adapted to its mode of dispersal. **(2 marks)**

……

……

……

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

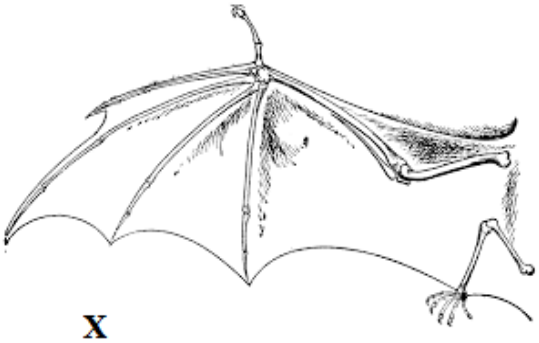


Y

W

Q

R



X

Z

(a) Name the type of structures shown by: **[2marks]**

i. X & Y …….

ii. W & Z ……..

(b) State the structural difference between structures X and Y **[2 marks]**

……

……

……

(c) Name the type of evolution shown by structures Q and R **[1 mark]**

Q……

R……

(d) State the adaptations of structures W and Z **(2 marks)**

W ……

Z ……

(e) Name the types of skeletons shown by structures X and Y **[2mks]**

X ……

Y ……

(f) By comparing structures Q and R, predict the type of food being fed on by the animals and give a reason in each case. **[4 marks]**

Q……

……

R……

……

(g) A part from structures X and Y, name two other examples of similar structures in animals. **[2 marks]**

……

……

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

233/1

CHEMISTRY

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 provide 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.*

(e) *All working MUST be clearly shown where necessary.*

(f) *Candidates should answer the questions in English.*

FOR EXAMINERS' USE ONLY

Question	Maximum Score	Candidates' Score
1 – 32	80	

1. What is the difference between chromatography and chromatology? **(1mark)**

……

……

……

2. When dilute Sulphuric (VI) acid is connected in a circuit to test conduction of electricity, the bulb lights while when concentrated Sulphuric (VI) acid is used in the same set-up, the bulb does not light. Explain this observation. **(2marks)**

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……

3. Explain why Aluminium Chloride has **PH 3** when dissolved in water? **(2marks)**

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……

4. Below is a list of substances.

Soap solution, common salt, urine, lemon juice and baking powder.

Select:

(a) A substance that is likely to give a PH of 3.0 when tested? **(1mark)**

……

(b) A substance (s) which is likely to resemble sodium hydrogen carbonate**.** **(1mark)**

……

(c) Two substances when reacted are likely to give the product with same **PH** as that of common salt. **(1mark)**

……

……

5. Briefly explain the observation made when a small piece of sodium metal is dropped into a bowl of water. **(3marks)**

……

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……

……

6. (a) Define Le Chatelier's principle. **(1mark)**

……

……

(b) A fixed mass of a gas has a volume of **400cm^2** at **20^{o}C,** what temperature rise would produce a 10% increase in volume if the pressure remains constant. **(3marks)**

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7. Using Dots (.) and (x) diagram, show the number of electrons used in bonding of H_3O^+ **(2marks)**

8. Explain why a luminous flame appears yellow. **(2marks)**

……

……

……

9. Some sodium chloride was found to be contaminated with copper (II) oxide. Describe how a dry sample of sodium chloride can be separated from the mixture. **(2marks)**

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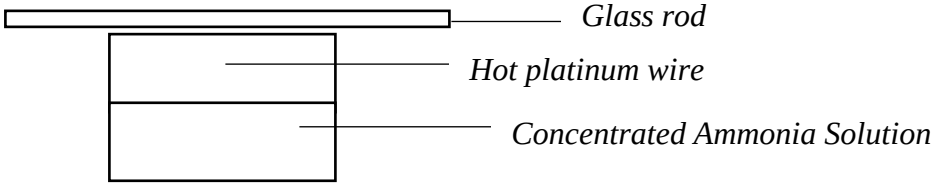
……

10. Hot platinum wire was lowered into a flask containing concentrated ammonia solutions shown below.



State and explain observations made **(3marks)**

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……

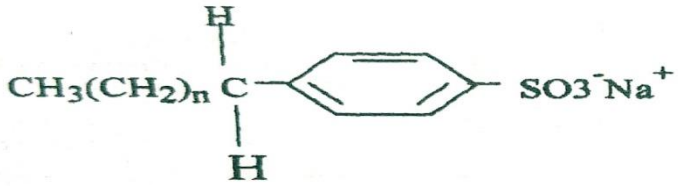
11. Give three characteristics of gases according to Kinetic theory of matter. **(3marks)**

……

……

……

12. The formula below represents active ingredients of two cleansing agents **A** and **B**



Agent A

$CH_3(CH_2)_6COO^-Na^+$

Agent B

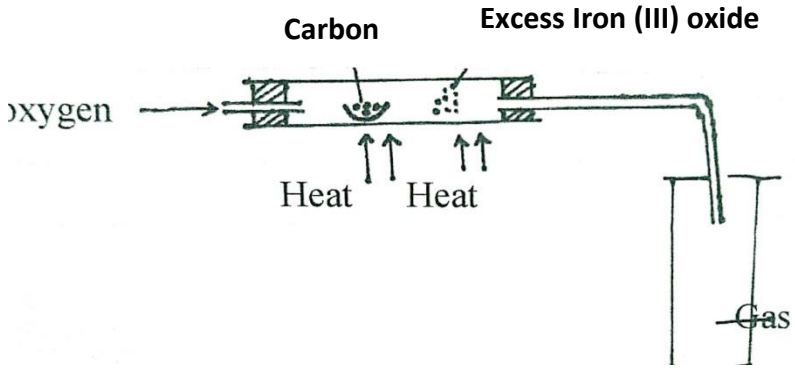
Which one of the cleansing agents would be suitable to be used in water containing magnesium hydrogen carbonate? Explain. **(2marks)**

……

……

……

13. The set-up below was used to obtain a sample of iron



Write **two** equations for the reactions which occur in the combustion tube. **(2marks)**

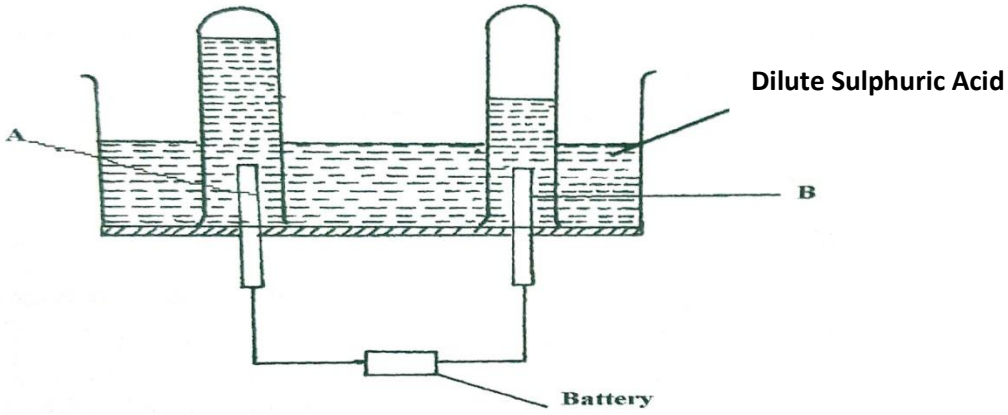
……

……

……

……

14. The diagram below represents a set-up that can be used for the electrolysis of dilute Sulphuric acid.



(a) Name the electrodes A and B **(1mark)**

……

……

(b) Write an equation for the reaction taking place at electrode B. **(1mark)**

……

(c) What happens to the concentration of dilute sulphuric acid as the reaction continues? **(1mark)**

……

……

15. Describe one physical and one chemical test that can be used to identify Ethane gas. **(2marks)**

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16. 15$cm^3$of a solution containing 2.88g/dm^3 of an alkali XOH completely reacts with 20cm^3 of 0.045M sulphuric acid. Calculate the reactive atomic mass of X present in the alkali. **(3marks)**

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17. Using equations, state and explain the changes in mass that occur when the following are heated separately in open crucible. **(3marks)**

(i) Magnesium metal

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……

……

(ii) Zinc carbonate

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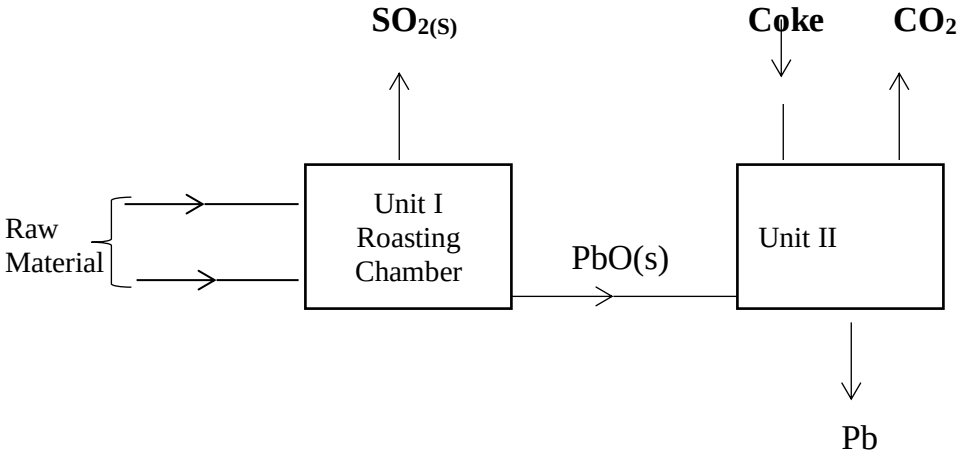
……

……

18. In the space provided below, draw a set-up that can be used to show the reaction between nitrogen (I) oxide with copper to give Nitrogen gas. **(3marks)**

19. The flow chart below shows some process in extraction of lead metal. Study it and answer the questions that follow;



(a) Name two raw materials that were fed into Unit I **(1mark)**

……

……

(b) State one environment hazard associated with the process in Unit I. **(1mark)**

……

……

(c) What is the function of Coke in Unit II **(1mark)**

……

……

20. Sulphur exhibits as an allotropy.

(a) What is allotropy? **(1mark)**

……

……

(b) Name the two allotropes of sulphur. **(1mark)**

……

……

(c) Sulphur powder was placed in a deflagrating spoon and heated on a Bunsen burner.

(i) State the observation made. **(1mark)**

……

……

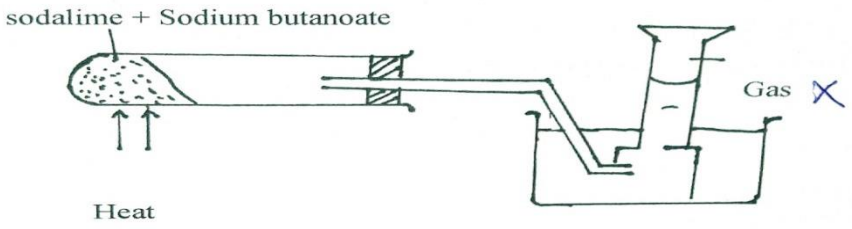
(ii) The product obtained was dissolved in water. Comment on the PH of the solution formed.

(1mark)

……

……

21. The set-up below was used to prepare a sample of an organic compound X.



(a) Identify gas X **(1mark)**

……

(b) Write the equation for the reaction that produces gas X. **(1mark)**

……

(c) 1 Mole of chlorine was reacted with gas X in presence of sunlight.

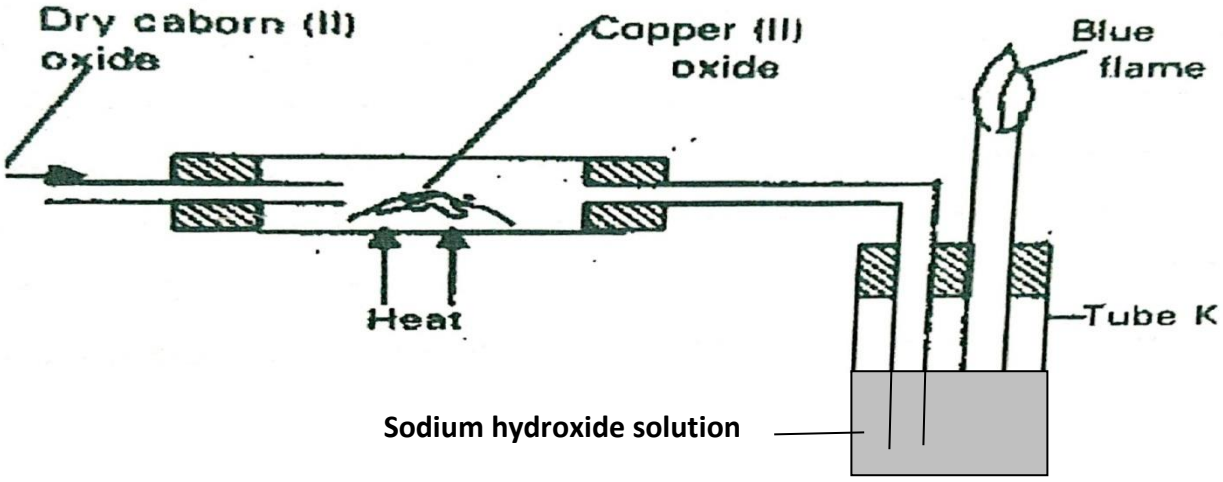
(i) State one observation made. **(½ mark)**

……

(ii) Name the major product formed. **(½ mark)**

……

22. The apparatus shown below was used to investigate the effect of carbon (II) oxide on Copper (II) oxide.



(a) State the observation that was made in the combustion tube at the end of the experiment.

(1mark)

……

……

(b) Write an equation for the reaction that took place in the combustion tube. **(1mark)**

……

(c) Why is it necessary to burn the gas coming out of tube K? **(1mark)**

……

……

23. The equation below represents changes in the physical state of ions metal:

$Fe_{(s)} \longrightarrow Fe_{(l)} \quad \triangle H = +15.4 Kjmol^{-1}$

$Fe_{(1)} \longrightarrow Fe_{(g)} \quad \triangle H = +354 Kjmol^{-1}$

Calculate the amount of heat energy required to change 10kg of solid iron to gaseous iron. (Fe = 56)

(3marks)

……

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……

24. The section below represents part of the periodic table. Study it and answer the questions that follow; the letters are not the actual symbol of the elements.

				Q				
X			**B**	**H**		**M**	**T**	
Y		**A**					**V**	
Z							**S**	

(a) Explain why the atomic radius of T is smaller than that of M **(1mark)**

……

……

……

(b) Compare the electrical conductivity of element X and B. **(2marks)**

……

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……

25. Read the following passage and answer the questions.

A salt X was heated with slaked lime (calcium hydroxide). A colorless gas R with a characteristic smell that turns red litmus paper blue was evolved. A large quantity of this gas was passed through an inverted filter funnel into Copper (II) sulphate solution, and a deep blue solution M was obtained.

(a) Identify gas R **(1mark)**

……

(b) What is X most likely to be? **(1mark)**

……

(c) Write an equation for the reaction between X and slaked lime. **(1mark)**

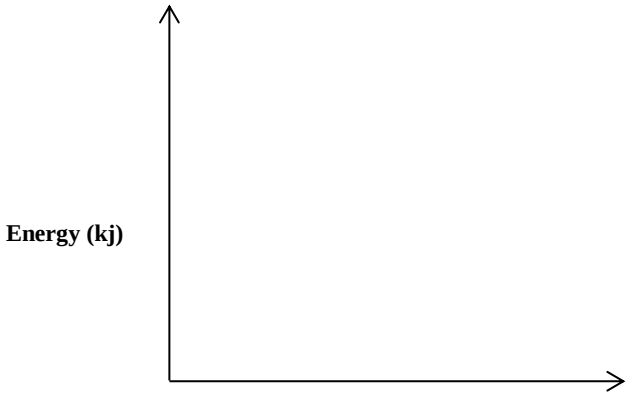
……

……

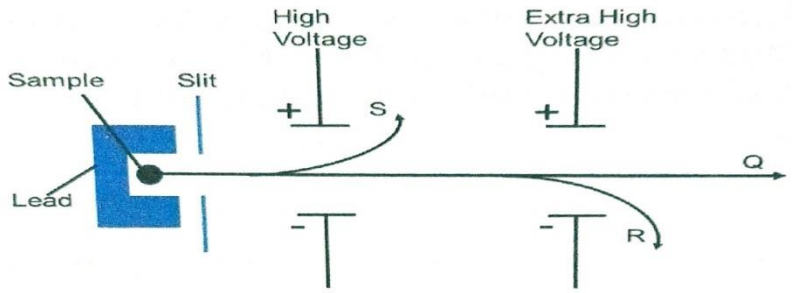
26. Consider the following reaction:

$A_{2(g)} + B_{2(g)} \rightleftharpoons 2AB_{(g)}$ Δ H = +75kj

Sketch an energy level diagram showing the relative activation energies for the catalyzed and uncatalyzed reactions using the axes below. **(2marks)**



27. The diagram below shows the radiations emitted by a radioactive sample.



(i) Identify radiation particles S and R **(2marks)**

S ……

R ……

28. (a) Starting with red roses, describe how a solution containing the red pigments may be prepared? **(2marks)**

……

……

……

……

(c) How can the solution be used as an indicator? **(1mark)**

……

……

29. (a) Give one reason why some of the laboratory apparatus are made of ceramics. **(1mark)**

……

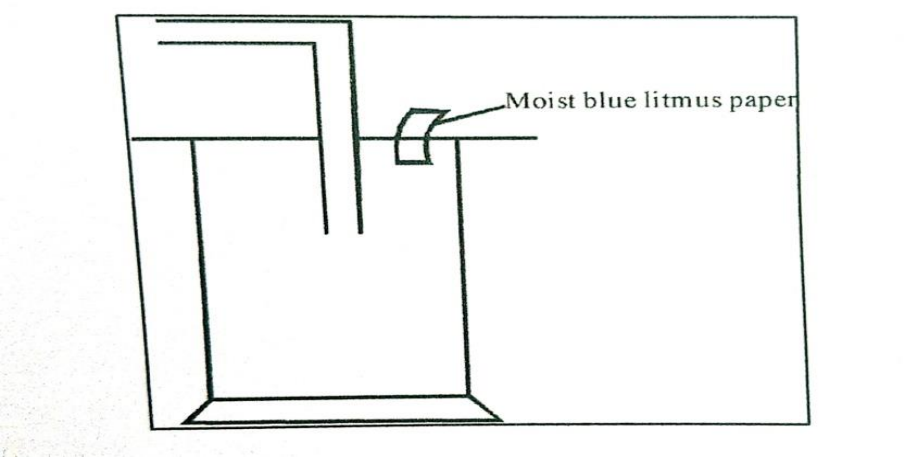
……

(b) Name the two apparatus that can be used to measure approximately $75cm^3$ of dilute sulphuric (VI acid. **(2marks)**

……

……

30. Dry chlorine was collected using the set-up below.



(a) Name a suitable drying agent for chlorine gas? **(1mark)**

……

(b) State one property of chlorine gas which facilitates this method of collection. **(1mark)**

……

(c) State one observation made on the moist blue litmus paper. **(1mark)**

……

……

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

233/2

CHEMISTRY

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 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 silent non-programmable electronic calculators may be used.*
e) *All working **MUST** be clearly shown where necessary*
f) Candidates must answer all the questions in English.

FOR EXAMINER'S USE ONLY

Question	Maximum Score	Candidate's Score
1	12	
2	13	
3	12	
4	10	
5	12	
6	11	
7	12	
TOTAL	80	

1.a) The grid below represents a periodic table. Study it and answer the questions that follow. The letters do not represent the actual symbols of the elements

J							M				
	K			N	O				P		
L											
								H			

i) Write the formula of the compound formed by element J and M. **(1mk)**

.....

ii) Identify the least reactive element. Give a reason for your answer**.** **(1mk)**

.....

.....

iii) Compare the atomic size of K and O. Explain. **(2mks)**

.....

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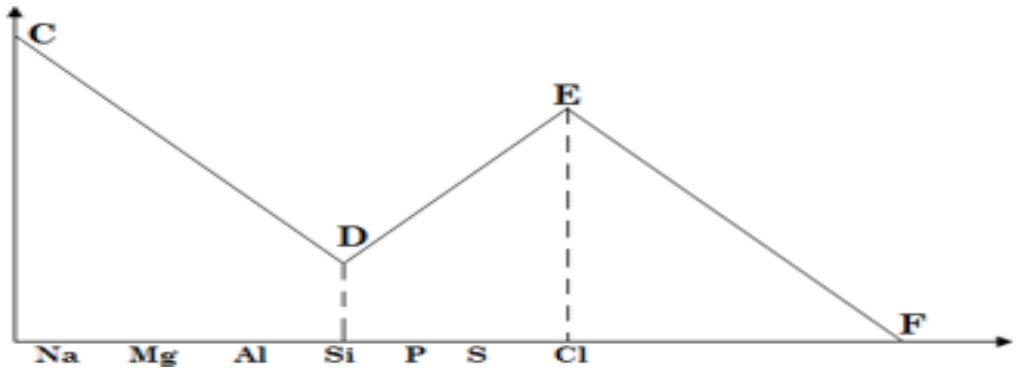
.....

b)The following graph shows the reactivity of elements in period 3.



Explain the Trend at D and E **(1mks)**

.....

.....

.....

c) The table below gives information on the Melting Points of compounds of period 3 elements. The letters do not represent the actual symbols.

Elements	R	S	T	U	V	W
Atomic number	11	12	13	14	15	16
M.pt of chloride ^0C	801	714	-	-70	-90	-80
M.pt of oxide ^0C	1190	3080	2050	2750	560	-73

a. Write the formula of

(i) Chloride of T **(1mk)**

.....

(ii) Oxide of U **(1mk)**

.....

b. (a) Using the information above, suggest the type of bonding present in the chloride of V. Explain. **(2mks)**

.....

.....

.....

.....

(ii) The difference in melting point of chloride and oxide of U in terms of structure and bonding. **(2mks)**

.....

.....

.....

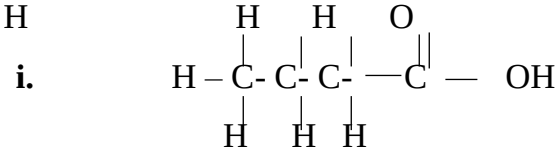
.....

(iii) Why there is no melting point in the chloride of T. **(1mk)**

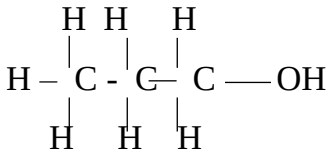
.....

.....

2.(a) Give the systematic names of the compounds whose structural formulae are given below.

i.  **(½ mark)**

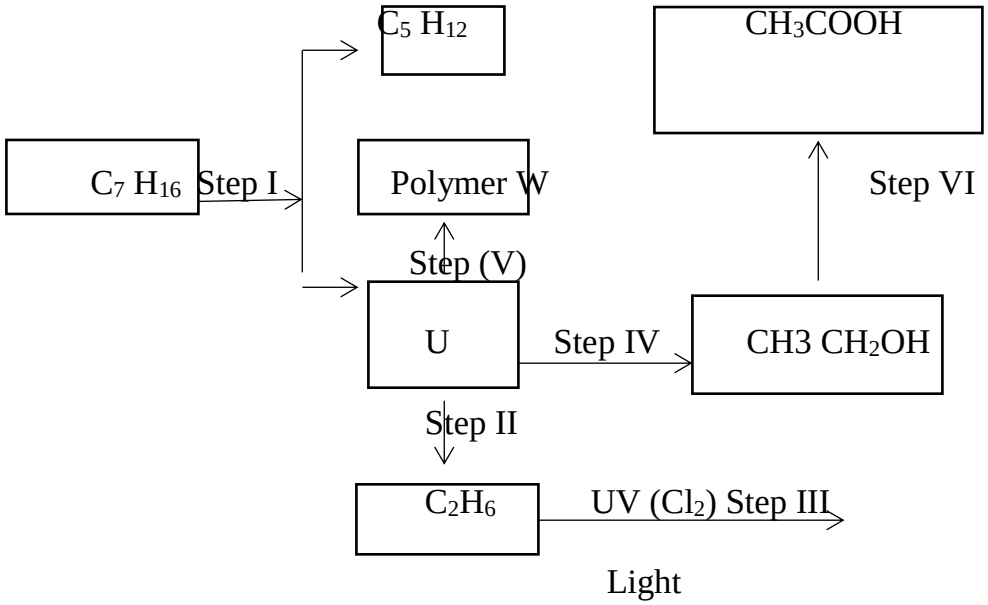
…….

ii.  **(½ mark)**

……

(b) Draw and name the structural formulae of the compound obtained when compounds in (a) react. **(1 mark)**

c). Study the reaction scheme below and answer the questions that follow.



(i) Name the process labeled Step I **(½ mark)**

……

(ii) Identify substance U **(½ mark)**

……

(iii) State the name of the fifth member of the homologous series to which U belongs. **(1 mark)**

……

(iv) Explain how acidified potassium manganite (VII) can be used to distinguish U from $C_2 H_6$.

(2 marks)

……

……

……

(v) State one industrial application of the process in step II. **(1 mark)**

……

……

……

(vi) Write the equation for the reaction in step III. **(1 mark)**

……

……

(vii) Identify the reagent and condition required in step (IV) **(1 mark)**

……

(viii) State **one** use of the polymer W. **(1 mark)**

……

(c) $R - COO^- Na^+$ (A) and R  $OSO_3^- Na^+$ (B) represent two types of cleaning agents

(i) Name the class of the cleaning agent to which A belongs. **(1 mark)**

……

(ii) Which cleaning agent would be suitable to use with water containing Magnesium Chloride? Explain **(2 marks)**

……

……

……

3.a) In an experiment $50cm^3$ of 1M copper (II) Sulphate solution was placed in a $100cm^3$ plastic beaker. The temperature of the solution was measured. Excess metal A powder was added to the solution, the mixture stirred and the maximum temperature recorded. The procedure was repeated using powders of metal B and C. The results obtained were given in the table below.

Metal	**A**	**B**	**C**
Maximum temperature(^{0}C)	26.3	31.7	22.0
Initial temperature (^{o}C)	22.0	22.0	22.0

(i) Arrange the metal A, B, C and Copper in ascending order of reactivity. **(1mark)**

C, Copper, A B is the Ionic bond

……

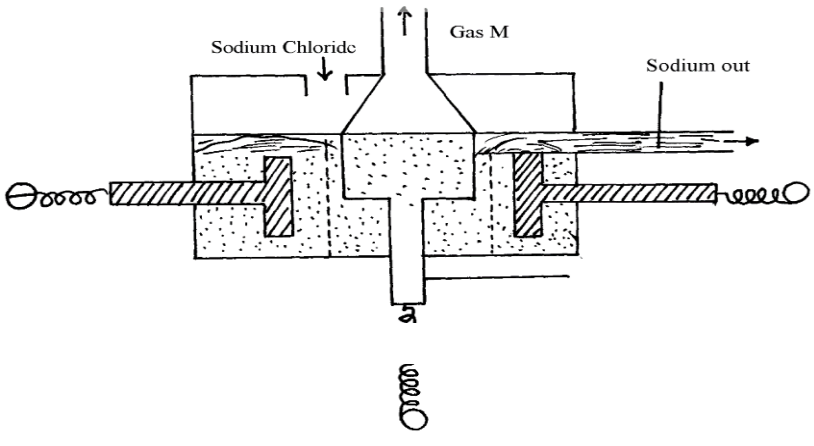
(ii) State one observation that was made when the most reactive metal than copper was added to the copper (II) Sulphate solution**. (1mk)** **Ion**

……

iii) Other than temperature state two factors that affect rate of reaction **1mk**

……

b). The diagram below shows the extraction of sodium metal using the Down's cell. Study it and answer the questions that follow.



(i) Explain why in this process sodium chloride is mixed with calcium chloride. **(1 marks)**

……

……

(ii) Why is the anode made of graphite and not iron? **(1 mark)**

……

(iii) State **two** properties of sodium metal that make it possible for it to be collected as shown in the diagram. **(2 marks)**

……

……

(iv) What is the function of the steel gauze cylinder? **(1 mark)**

……

(v) Write ionic equations for the reactions which take place at;

I Cathode **(1 mark)**

……

II Anode **(1 mark)**

……

(v) Why is sodium metal stored under kerosene? **(1 mark)**

……

……

4.(a) Fractional distillation of liquid air is mainly used to obtain nitrogen and oxygen.

(i) Name one substance other than sodium hydroxide that is used to remove carbon (IV) oxide from the air before it is changed into liquid. **(1 mark)**

……

(ii) Describe how nitrogen gas is obtained from the liquid air.

(Boiling points nitrogen = -196^{0}C, Oxygen = -183^{0}C) **(3 marks)**

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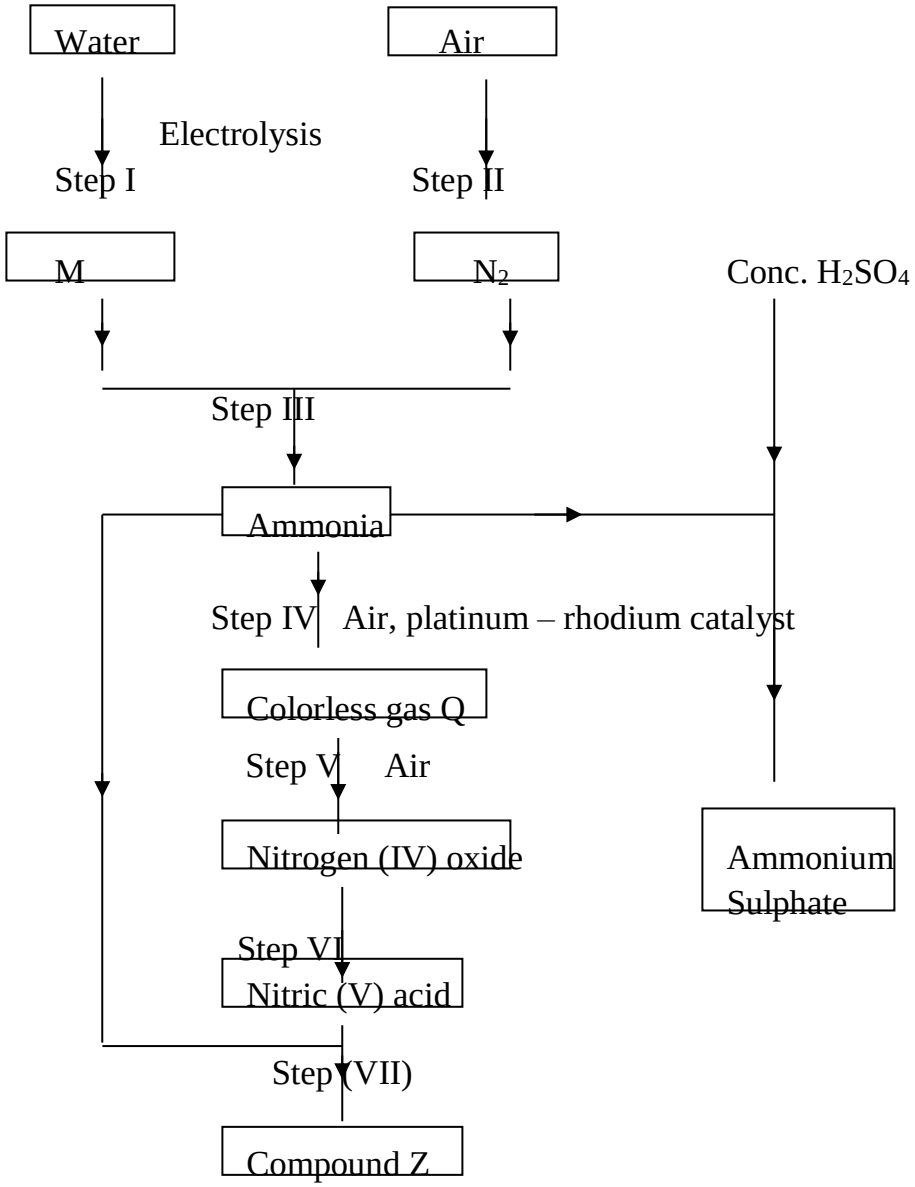
……

(b) Study the flow chart below and answer the questions that follow.



(i) Name substance M …… **(1 mark)**

(ii) Identify gas Q …… **(1 mark)**

(iii) State one use of compound **Z** …….. **(1 mark)**

……

……

(iv) A fertilizer manufacturing industry uses 1400dm^3 of ammonia gas per hour to produce ammonium sulphate. Calculate the amount of ammonium sulphate produced in kg for one day if the factory operates for 18 hours. **(N = 14, H = 1, S = 32, O = 16, 1 mole of gas = 24dm^3) (3 marks)**

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5.a) Define the term Half -life **(1mk)**

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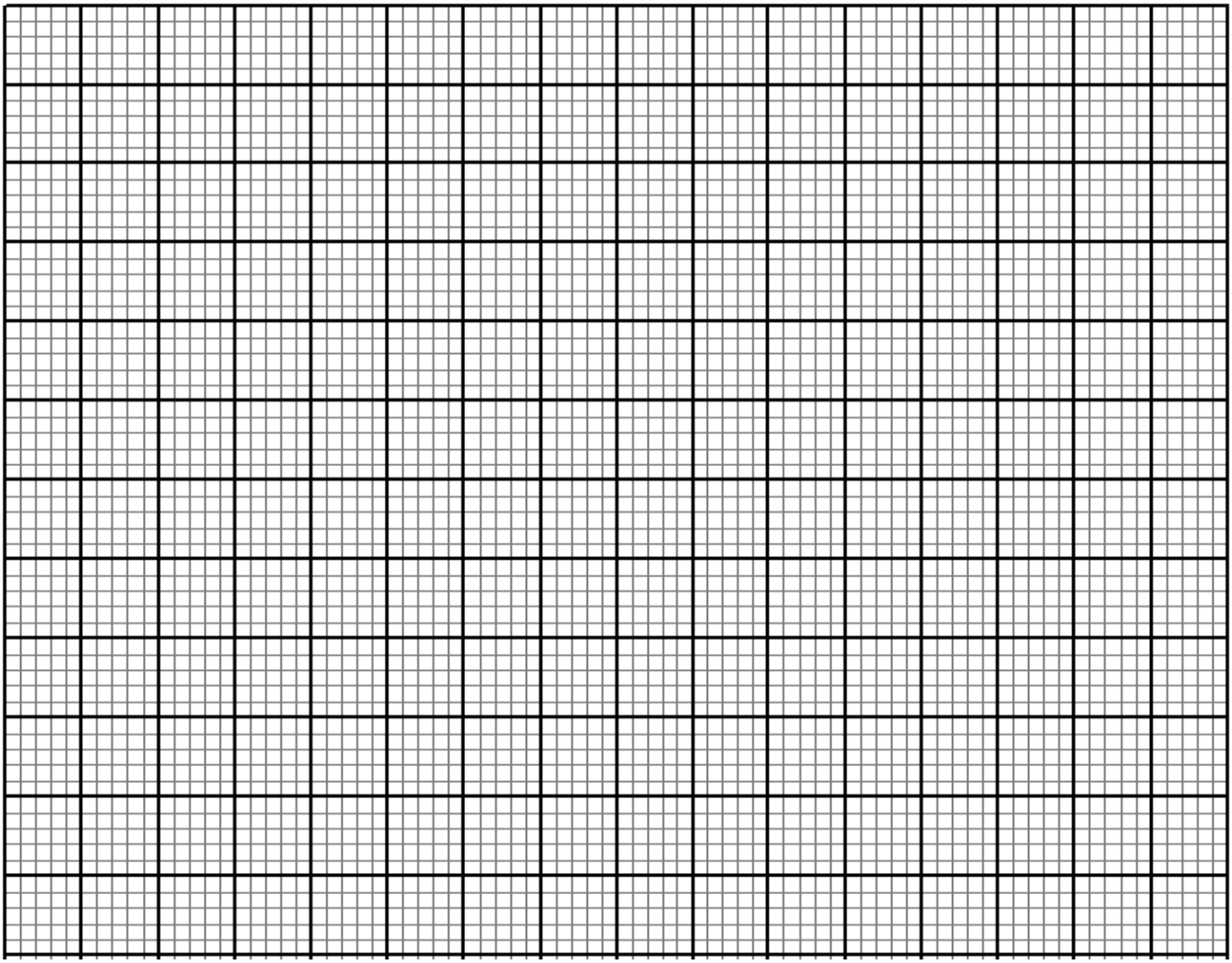
……

(b) Table 2 contains information from the measurements made of the radioactivity in counts per minutes from a radioisotope iodine – 128.

Counts per min	240	204	180	156	138	122	108
Time (min)	0	5	10	15	20	25	30

Table 2

(i) Plot a graph of counts per minute against time. **(3marks)**



(ii) Use the graph to determine the half-life of iodine – 128. **(1mark)**

……

……

(iii) What is the counts rate after 22 minutes? **(½ mark)**

……

(iv) After how many minutes were the counts rate 160 counts per minute? **(½ mark)**

……

……

……

c) Potassium has two isotopes $^{39}_{19}K$ and radioactive $^{40}_{19}K$.

(i) State how the two isotopes differ. **(1mark)**

……

……

(ii) The half-life of $^{40}_{19}K$ is 1.3 x 10^9years. Determine how long it would take for 4g of the isotope to decay to 1g. **(1mark)**

……

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……

(iii) $^{39}_{19}K$ undergoes beta decay to form an isotope of calcium. Write the nuclear equation for this decay. **(1mark)**

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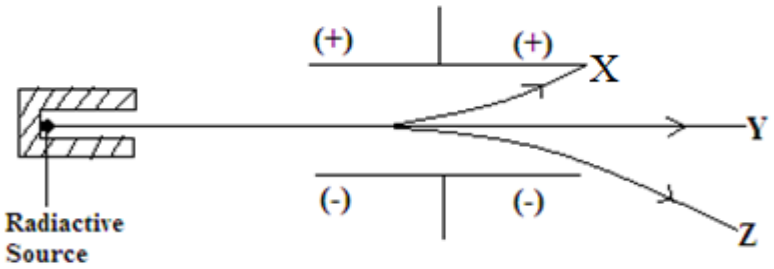
……

……

d) Fig 2 shows how a radioactive material emitted radiations from its source. Study it and answer the questions that follow as shown below.



I) Identify the radiation that: **(2 marks)**

i. Has no mass?

……

……

ii. Contains Helium particles?

……

II) State two applications of radioactivity in medicine **(2 mks)**

……

……

……

(6.a) State the Hess's law **(1 mark)**

……

……

a) Use the information below to answer the questions that follow.

$C_{(s)} + O_{2(g)} \longrightarrow CO_2 \quad \Delta H = -394KJmol^{-1}$

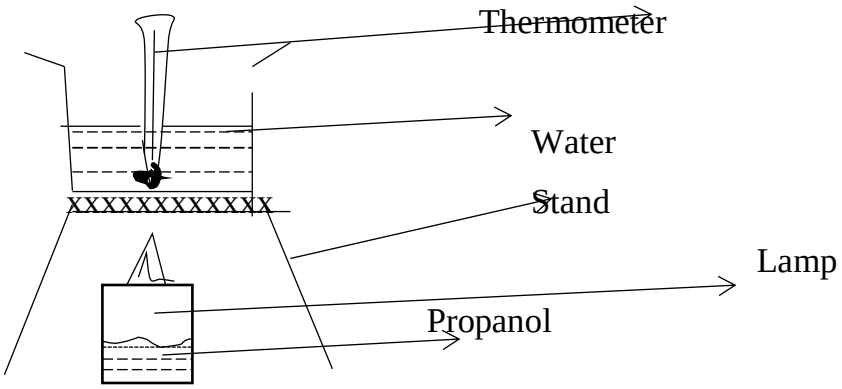
$H_{2(g)} + ½\ O_{2(g)} \longrightarrow \Delta H_2O_{(l)} \quad H = -286KJmol^{-1}$

$C_2H_{2(g)} + 5O_{2(g)} \longrightarrow 2CO_2 + H_2O \quad \Delta H = -1300KJmol^{-1}$

(i) Draw an energy cycle diagram that links the heat of formation of ethyne with its heat of combustion and the heats of combustion of carbon and hydrogen. **(2marks)**

(ii) Calculate the standard 'enthalpy of formation' of ethyne. **(2mark)**

(b) The diagram below represents a set-up that was used in determining the molar heat of combustion of propanol. (C_3H_7OH)



During the experiment the data given below was recorded.

Volume of water	= $100cm^3$
Final temperature of water	= 43.5^0c
Initial temperature of water	= 20.5^0c
Mass of propanol + lamp before burning	= 126.5g
Mass of propanol + lamp after burning	= 124.7g

Calculate

(i) The molar heat of combustion of propanol **(3marks)**

(Density of water = $1g/cm^3$, specific heat capacity of water = 4.2 kJ/kg/k, C=12.0, O = 16.0, H = 1.0)

(ii) The heating value of propanol. **(1 mark)**

(iii) Give **two** disadvantages of using hydrogen as a source of fuel. **(1 mark)**

……

……

(d) Study the information given in the table below and answer the questions that follow.

Bond	Bond energy in $kJmol^{-1}$
C – H	414
Cl – Cl	244
C – Cl	326
H - Cl	431

Calculate the enthalpy change for the reaction. **(2mks)**

$$CH_{4(}{}_{)} + Cl_{2(g)} \qquad H_3Cl_{(g)} +$$

$$CH_{4(g)}\text{……}+\text{……}4Cl_{2(g)}\longrightarrow\text{……}CCl_{4(g)}\text{……}+\text{……}4HCl_{(g)}$$

7(a) Explain the meaning of the following in terms of oxidation numbers: **(2mks)**

i) Reduction

……

……

ii) Oxidation

……

……

iii) **Determine** the oxidation number of chlorine in the ion. **(1mk)**

ClO_3^-

……

……

……

b) The standard electrode potentials ($E^{ø}$) of elements Dand G are-2.38Volts and -2.87 Volts respectively.

i) Identify the strongest oxidizing agent **1mk**

……

ii) Draw a labeled diagram of the cell formed when the two are connected. **(3mks)**

iii) Determine the e.m.f of the cell formed above. **(2mks)**

c) During electrolysis of aqueous Copper(II) Sulphate using carbon electrodes a current of 2.0A was passed for 3 hours.

i) Find the mass of copper metal deposited at the cathode (Cu=64;1F=96500) **(3mks)**

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.....

.....

ii) State two factors that determine preferential discharge in electrolysis. **(1 mark)**

.....

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KCSE 2024 MOKASA JOINT MOCK

SERIES 2

233/3

CHEMISTRY

PAPER 3 (PRACTICAL)

TIME: 2¼ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

CHEMISTRY PAPER 3 CONFIDENTIAL

INSTRUCTIONS

In additional to the apparatus and fittings common in a chemistry laboratory, each candidate will require the following.

- About 150ml of solution labelled **A**.
- About 100ml solution labelled **B**.
- About 50ml of solution labelled **C**
- About 0.2g of sodium hydrogen carbonate in a stoppered container.
- About 0.5g of solid **M** in a stoppered container.
- About 0.5g of solid **G** in a stoppered container
- 0 – 50ml burette.
- 25ml pipette.
- Two 250ml conical flasks
- 250ml volumetric flask
- 10ml measuring cylinder.
- Six test tubes on a test tube rack.
- A boiling tube.
- test tube holder.

- Complete stand.
- A white tile.
- One metallic spatula.
- Distilled water in a wash bottle.
- One label

Access to:

- Source of heat.
- Universal indicator paper and **its pH chart**.
- 2M aqueous ammonia supplied with a dropper.
- 2M aqueous sodium hydroxide supplied with a dropper.
- $Pb(NO_3)_{2\,(aq)}$ supplied with a dropper
- Acidified potassium manganate (VII) supplied with a dropper.
- Bromine water supplied with a dropper.
- 2M dilute nitric (V) acid.
- Methyl orange indicator with a dropper
- Phenolphthalein indicator with a dropper
- Sodium chloride solution

NB:

1. Solution **A** is prepared by dissolving 4.3 cm^3 of concentrated HCl (1.18g/cm^3) to 500 cm^3 of water and dilute to 1 litre.
2. Solution **B** is prepared by dissolving 1.2g of NaOH pellets in about 600ml of distilled water and diluting to 1 litre.
3. Solution **C** is prepared by dissolving 62.9g of $Na_2CO_3.10H_2O$ in about 800ml of distilled water and then topping up to 1 litre.
4. Acidified potassium permanganate is prepared by dissolving 3.5g of $KMnO_{4\,(s)}$ in 200cm^3 of 2M $H_2SO_{4(aq)}$ and toping up to one litre solution.
5. 2M $H_2SO_{4\,(aq)}$ is prepared by diluting 110cm^3 of concentrated Sulphuric (VI) acid to make one litre of solution.
6. 2M $NaOH_{(aq)}$ is prepared by dissolving 80g of NaOH pellets in one litre of solution.
7. 2M HNO_3 is prepared by adding 128 cm^3 of Conc. HNO_3 to about 500ml of water and dilute to 1 litre.
8. Sodium chloride solution is prepared dissolving 5.85g of NaCl in 1 litre of water
9. Lead (II) nitrate solution is prepared by dissolving 30g of $Pb(NO_3)_2$ in 1litre of water
10. Solid **M** is aluminium sulphate
11. Solid **G** is maleic acid.

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

233/3

CHEMISTRY

PAPER 3 (PRACTICAL)

TIME: 2¼ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

- *Write your **name**, admission number and class.*
- *Answer **all** the **Q**uestions in the spaces provided.*
- *You are not allowed to start working with the apparatus for the first 15 minutes of the 2 ¼ hours allowed for this paper. This time is to enable you to read the **Q**uestion paper and make sure you have all the chemicals and apparatus you need.*
- *All working **must** be clearly shown where necessary.*
- *Mathematical tables and electronic calculators may be used.*

FOR EXAMINER'S USE ONLY

Question	Maximum Score	Candidate's Score
1	19	
2	12	
3	09	
TOTAL	40	

Question 1

You are provided with the following:

- Solution **A** ; Hydrochloric acid
- Solution **B**; 0.03M sodium hydroxide
- Solution **C**, Containing 15.74g of Na_2CO_3. **X**H_2O in 250ml of the solution.

You are required to determine: -

i) The concentration of solution **A**

ii) The value of **X** in the carbonate Na_2CO_3. **X**H_2O

PROCEDURE A

- Fill the burette with solution **A**. Using clean pipette, place 25.0cm^3 of solution **B** into a 250ml conical flask.
- Add 2 drops of **phenolphthalein indicator** and titrate with solution **A**. Record your results in **table I** below. Repeat the experiment two more times and complete the table.

Table I **(4mks)**

	I	**II**	**III**
Final burette reading (cm^3)			
Initial burette reading (cm^3)			
Volume of solution **A** (cm^3) used			

a) Determine the :-

(i) Average volume of solution A used. **(1mk)**

……

……

……

(ii) Number of moles of sodium hydroxide in 25 cm^3 of solution **B** used**.** **(1mk)**

……

……

……

(iii) Number of moles of acid in volume of solution **A** used. **(1mk)**

……

……

……

(iv) Concentration of solution **A** in moles per litre**.** **(1mk)**

……

……

……

PROCEDURE B

- Using a **clean** pipette, place 25.0 cm^3 of solution **C** into a 250ml volumetric flask. Add about 100cm^3 of distilled water. Shake well and add more distilled water to make up to the mark. Label this solution **D**
- Fill the burette with solution **A**. Using a **clean** pipette, place 25 cm^3 of solution **D** into a conical flask. Add 2 drops of **methyl orange indicator** and titrate with solution **A**. Record your results in the **table II.**
- Repeat the titration two more times and complete **table II**.

Table II **(4mks)**

	I	**II**	**III**
Final burette reading (cm^3)			
Initial burette reading (cm^3)			
Volume of solution **A** (cm^3) used			

b) Determine the: -

(i) Average volume of solution **A** used. **(1mk)**

……

……

……

(ii) Moles of the acid of solution **A** that reacted with the carbonate solution **D.** **(1mk)**

……

……

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(iii) Number of moles of the carbonate in 25 cm^3 of solution **D** used. **(1mk)**

……

……

……

(iv) Number of moles of carbonate in 250cm^3 of solution **D** **(1mk)**

……

……

……

(v) Concentration of carbonate solution **C** in **moles per litre**. **(1mk)**

……

……

……

(vi) Concentration of the carbonate solution **C** in **grams per litre**. **(1mk)**

……

……

……

(vii) Value of **X** in Na_2CO_3. **X**H2O (H=1.0, C=12.0, O=16.0 Na=23.0) **(1mk)**

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……

QUESTION 2

You are provided with solid **M**. Use it to carry out the tests below. Write the observations and inferences in the space provided.

(i) Place solid **M** in a boiling tube and add about $10cm^3$ of distilled water. Divide the resulting solution into **five portions**

Observation	**Inference**
(1mk)	**(1mk)**

(ii) To the first portion add sodium hydroxide solution dropwise till excess.

Observation	**Inference**
(1mk)	**(1mk)**

(iii) To the second portion add aqueous ammonia solution dropwise till excess.

Observation	**Inference**
(1mk)	**(1mk)**

(iv) To the third portion add 3 drops of sodium chloride solution.

Observation	**Inference**
(1mk)	**(1mk)**

(v) To the fourth portion add about $2cm^3$ of HNO_3 acid.

Observation	**Inference**
(1mk)	**(1mk)**

(vi) To the fifth portion add 3 drops of lead (II) nitrate solution and warm.

Observation	**Inference**
(1mk)	**(1mk)**

Question 3

You are provided with solid **G**. Use it to carry out the tests below. Write the observations and inferences in the space provided.

(a) Using a **clean** metallic spatula, take one third of solid **G** and place on Bunsen burner flame.

Observation	**Inference**
(1mk)	**(1mk)**

(b) Place the remaining solid **G** in a boiling tube. Add $10cm^3$ of distilled water and shake the mixture until all the solid dissolves. Divide the resulting solution into **four portions**.

To the first portion add 3 drops of acidified potassium manganate (vii)

Observation	**Inference**
(1mk)	**(1mk)**

(c) To the second portion add 3drops of bromine water

Observation	**Inference**
(1mk)	**(1mk)**

(d) To the fourth portion dip universal indicator paper and determine the **pH** of the solution

Observation	**Inference**
(1mk)	**(1mk)**

(e) To the third portion add solid sodium hydrogen carbonate

Observation	**Inference**
(½mk)	**(½mk)**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

232/1

PHYSICS

PAPER 1 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

Instructions to candidates

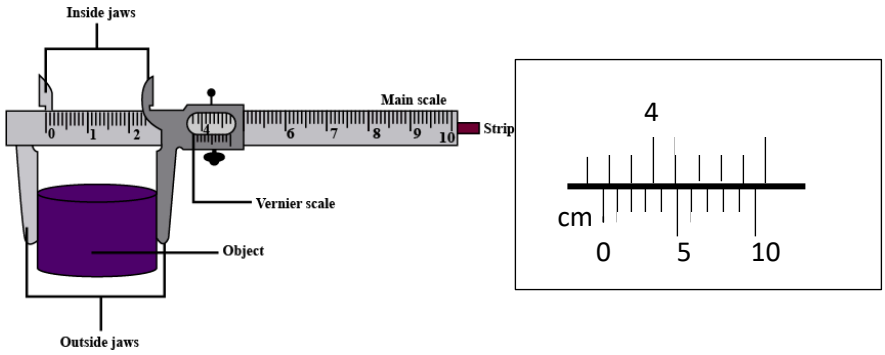
- This paper consists of two sections ***A*** and ***B***.
- Answer **all** the questions in the two sections in the spaces provided after each question
- All working **must** be clearly shown.
- Electronic calculators, mathematical tables may be used.
- All numerical answers **should be expressed** in the **decimal** notations.
- You may use 'g' as $10 m/s^2$

For Examiner use only

SECTION	QUESTION	MAX MARKS	CANDIDATE'S SCORE
A	1 – 13	25	
B	14	13	
	15	13	
	16	14	
	17	07	
	18	08	
	TOTAL	80	

SECTION A (25 MARKS)

1. Figure 1, shows a Vernier caliper of zero error 0.02 cm being used for measuring the diameter of a cylindrical container of height 10 cm. The scale reading of the Vernier is as shown alongside.

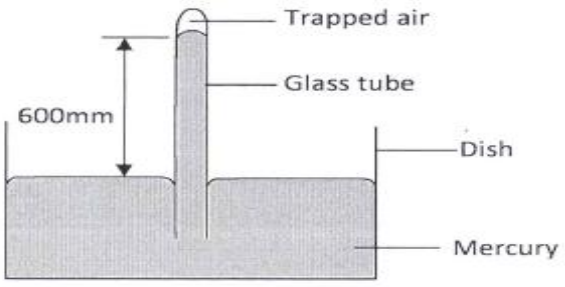


a. Determine the diameter of the container **(2 marks)**

b. Estimate the volume of a liquid which can completely fill the container **(2 marks)**

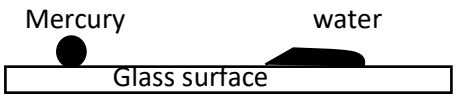
2. State **one** factor that affects the turning effect of a force on a body**.** **(1 mark)**

3. Figure 2 shows some air trapped by mercury in a glass tube. The tube is inverted in a dish containing mercury.



Given that the atmospheric pressure is 760 mmHg and the height of mercury column in the tube is 600 mm, determine the pressure of the air trapped in the tube in mmHg. **(2 marks)**

4. Figure 3 shows drops of mercury and water on a glass surface, Explain the difference in the shapes of the drops. **(2marks)**



5. A ball is thrown from the top of a cliff 20m high with a horizontal velocity of $10ms^{-1}$. Calculate the distance from the foot of the cliff to where the ball strikes the ground. **(3 marks)**

6. Explain o**n**e advantage of mercury over alcohol as a thermometric liquid**.** **(1mark)**

7. A body of mass **M** is allowed to slide down an inclined plane. State **two** factors that affect its final velocity at the bottom of the inclined plane. **(2marks)**

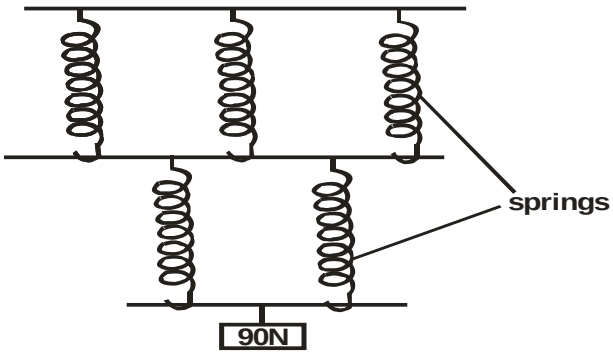
8. A stopwatch reads 08:10:84 and 09:10: 90 before and after an experiment respectively. Determine the duration of the event in SI units. **(2marks)**

9. Explain the meaning of thermodynamics as a branch of physics. **(1 mark)**

10.

a. State the Hooke's Law. **(1mark)**

b. Figure 4 shows identical spiral springs supporting a load of 90N. Each spring has a spring constant k = 200N/m



Determine the total extension of the system (take the weight of the cross bars and springs to be negligible) **(2 marks)**

11. Figure 5 shows a rectangular loop with a thin thread loosely tied and dipped into a soap solution. Draw on the space provided what is observed when point **A** is punctured. **(1mark)**

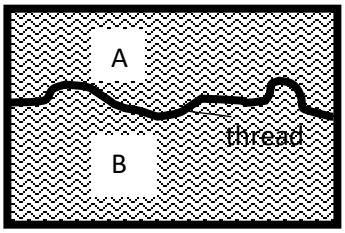
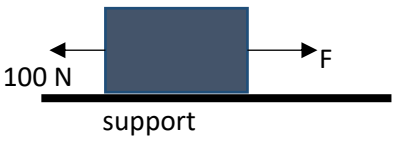


Figure 1

12. Two horizontal strings are attached to a block, resting on a frictionless surface, as shown in figure 6.



A force of 100N pulls on one string. The block does not move. Find the value of the force, F on the other string. **(1 mark)**

13. A wooden bench feels neither warm nor cold when touched by your bare hands. Explain this observation. **(2 marks)**

SECTION B (55 MARKS)

14.

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

b) A particle moving along a circular path of radius 5cm describes an arc of length 2cm every second. Determine:

i. Its angular velocity. **(1mark)**

ii. Its periodic time. **(2marks)**

c) A stone of mass 150g is tied to the end of a string 80cm long and whirled in a vertical circle at 2rev/s. Determine the maximum tension in the string. **(3marks)**

d) State **one** factor affecting centripetal force **(1mark)**

e) State the principle of conservation of linear momentum **(1 mark)**

f) A bullet of mass 60g is fired horizontally with a velocity of 200 m/s into a suspended stationary wooden block of mass 2940g. Determine:

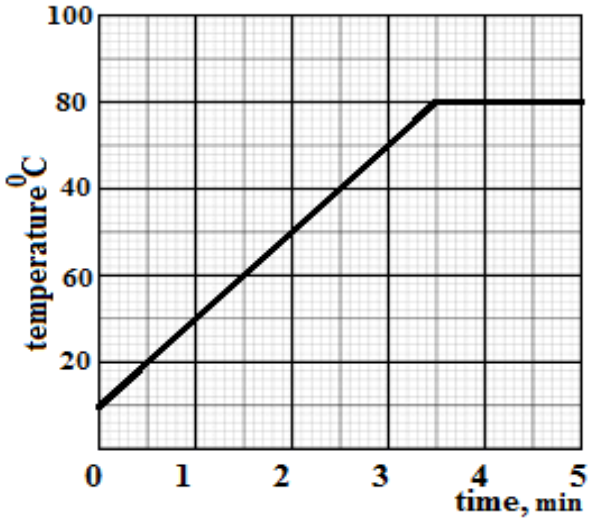
i. Common velocity of both the bullet and the block, if the bullet embedded into the block. **(2 marks)**

ii. Height to which the block rises. **(2 marks)**

15.

a) State two factors that affect the boiling point of a liquid **(2 marks)**

b) 100g of a liquid at a temperature of 10^0 C is poured into a well lagged calorimeter. An electric heater rated 50W is used to heat the liquid. The graph in figure 7 shows the variation of the temperature of the liquid with time.



(i) From the graph, determine the boiling point of the liquid **(1 mark)**

(ii) Determine the heat given out the by the heater between the times t = 0.5 minutes and t = 5.0 minutes **(3 marks)**

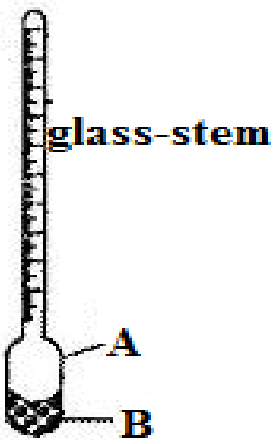
c) From the graph determine the temperature change between the times t = 0.5 minutes and t = 5.0 minutes, hence determine the specific heat capacity of the liquid **(3 marks)**

d) 1.8 g of vapor was collected from above the liquid between the times t= 3.5 minutes and t= 4.5 minutes. Determine the specific latent heat of vaporization of the liquid **(4 marks)**

16.

a) State the law of floatation **(1 mark)**

b) Figure 8 below shows a simple hydrometer



A ……

B ……

i. Identify the parts labelled A and B **(2 marks)**

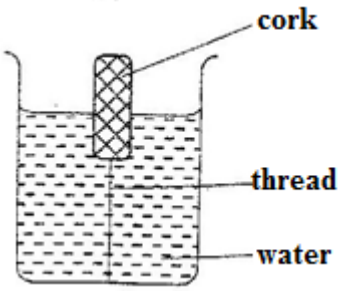
ii. State the purpose of the part labelled B **(1 mark)**

c) How would the hydrometer be made more sensitive? **(1 mark)**

d) Describe how the hydrometer is calibrated to measure relative density **(3 marks)**

e) Figure 9 shows a cork floating on water and held to the bottom of the beaker by a thin thread.

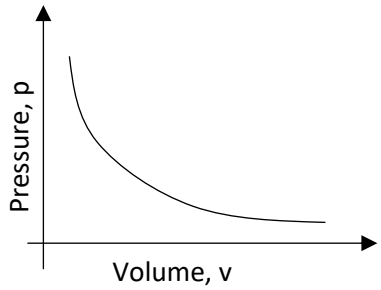
i. Name the forces acting on the cork **(3 marks)**



ii. Describe how each of the forces mentioned in (i) above changes when water is added until the container is completely filled **(3 marks)**

17.

a) Figure 10 shows a graph of pressure against volume for a fixed mass of a gas at constant temperature.



In the space provided, sketch a graph of pressure, p against $\frac{1}{v}$ **(1 mark)**

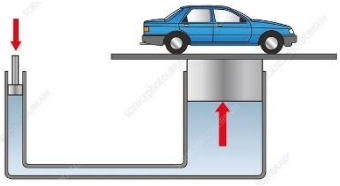
b) Explain the pressure law using the kinetic theory of matter **(3 marks)**

c) $20cm^3$ of a gas exerts a pressure of 760mmHg at 25^0C. Determine the temperature of the gas when the pressure increases to 900mmHg and the volume decreases to 15 cm^3. **(3 marks)**

18.

a) Define the term velocity ratio of a machine (**1 mark)**

b) The figure 11, below shows part of the hydraulic lift system. State any **one** property of the liquid under which the hydraulic system works **(1 mark)**



c) The hydraulic lift machine above has velocity ratio 45 and it overcomes a load of 4500 N when an effort of 135 N is applied. Determine:

i. The mechanical advantage of the machine **(2 marks)**

ii. Efficiency of the machine **(3 marks)**

iii. The percentage of work that goes to waste **(1 mark)**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

232/2

PHYSICS

PAPER 2 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

Instructions to Candidates

- *Write your name and index number in the spaces provided above.*
- *Sign and write the date of the examination in the spaces provided above*
- *This paper consists of **two** sections **A** and **B**.*
- *Answer **all** the questions in section **A** and **B** in the spaces provided*
- *All working **MUST** be clearly shown in the spaces provided in this booklet.*
- *Non programmable silent electronic calculators and KNEC mathematical tables may be used except where stated otherwise.*

Take: Speed of light in vacuum C = 3.0 x 10^8m/s Acceleration due to gravity g = 10N/S^2

FOR EXAMINER'S USE ONLY

Section	Question (s)	Max. Score	Candidates Score
A	1 – 12	25	
B	13	12	
	14	8	
	15	11	
	16	12	
	17	12	
	Total	80	

SECTION A (25 MARKS)

Answer all the questions in the spaces provided.

1. Figure 1 below shows a ray of light incident to the first of the two mirrors placed at an angle of 60^0

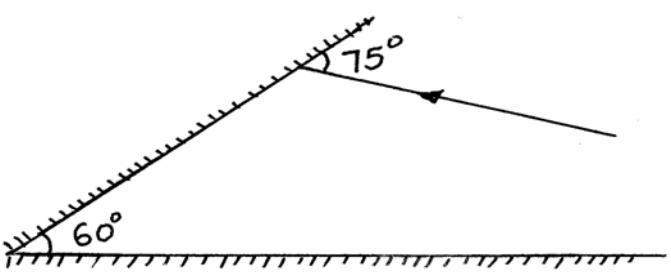


fig 1

Complete the path of the ray after reflection from the mirrors. **(1mk)**

2. Figure 2 below shows a positive charge near a plate carrying negative charge.

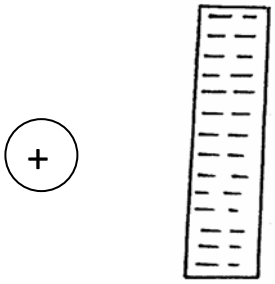


fig 2

Draw the electric field between them. **(2mks)**

3. Two pins are hanging from a magnet as shown in the diagram below (figure 3)

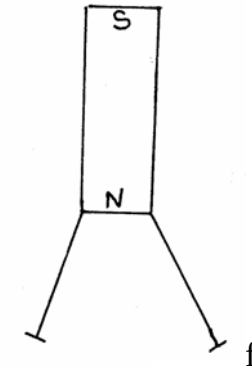


fig 3

Explain why they do not hang vertically downwards. **(2mks)**

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……

4. Draw the diagrams to illustrate what happens when plane waves are incident on a slit.

i) When the width of the slit is large compared with the wavelengths of the waves. **(2mks)**

ii) When the width of the slit is small compared with wavelength of the waves. **(2mks)**

5. What energy conversion occurs in a photocell? **(1mk)**

……

6. i) Arrange the following waves in order of decreasing wavelength; infrared, X-rays, micro-waves and visible light **(1mk)**

……

ii) State one application of visible light. **(1mk)**

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……

7. State two advantages of an alkaline battery over lead acid battery. **(2mks)**

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8. A girl shouts and ears an echo after 0.6 seconds later from a cliff. If velocity of sound is 330m/s, calculate the distance between her and the cliff. **(3mks)**

9. What is dispersion of light? **(1mk)**

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……

10. Determine the reading of an ammeter in figure 4 below **(2mks)**

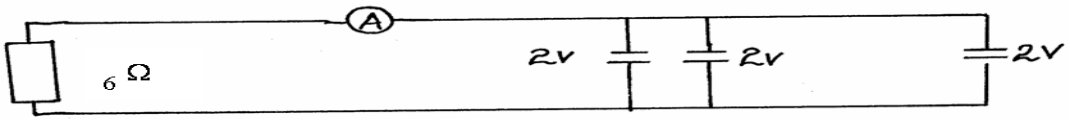

fig 4

11.A ray of light is incident on a glass oil interface as shown in figure 5 below. Determine the value of r (Take refractive index of glass and oil as 3/2 and 6/3 respectively) **(3mks)**

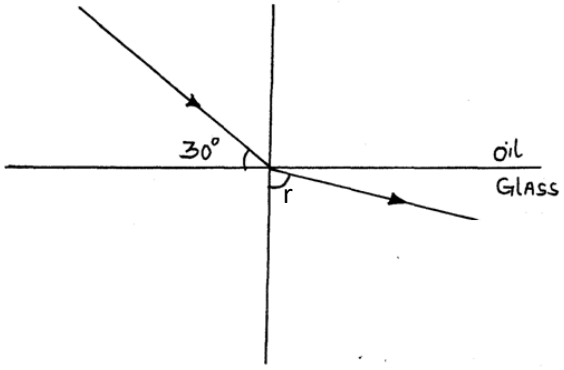

fig 5

12. State two factors that affect the capacitance of a parallel plate capacitors. **(2mks)**

……

……

SECTION B (55 MARKS)

13.(a)State Ohm's law. **(1 mark)**

……

……

(b) You are provided with the following apparatus:

- Connecting wires
- An ammeter
- Fixed resistor
- A voltmeter
- A variable resistor
- Switch
- 2 dry cells in a cell holder

(i) In the spaces below, draw the circuit that can be used using the apparatus above to verify Ohm's Law. **(3 marks)**

(ii) Briefly explain how you can obtain the results to verify Ohm's law. **(4 marks)**

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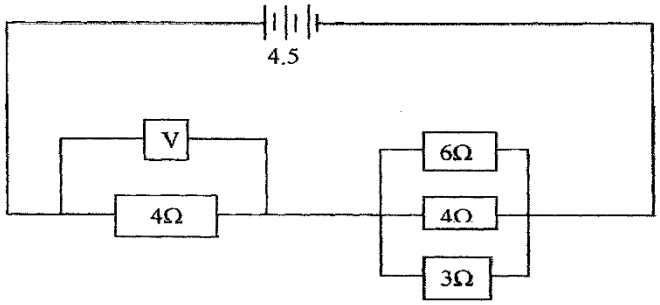
(c) Study the circuit diagram below and answer the questions that follow.



(i) Calculate the effective resistance of the circuit. **(3marks)**

(ii) Find the voltmeter reading. (**2marks)**

14. (a) A Girl stands some distance from a high wall and claps her hands

(i) What two measurements would need to be made in order to determine the speed of sound?

2mks

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……

(ii) **Describe** how you would make use of these measurements (**3mks)**

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(iii) The speed of sound in air is 330m\s.How far from the wall would you stand? Choose an answer from the following distances .10m, 200m, 500m.

Give reasons why you did not choose each of the other two distances **(2mks)**

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(iv) The frequency of the sound emitted by the loud speaker is 1020Hz. **Calculate** the wavelength of the sound wave in air where its velocity is 340m\s **(2mks)**

b) Figure 15 shows the set up used to demonstrate interference of sound

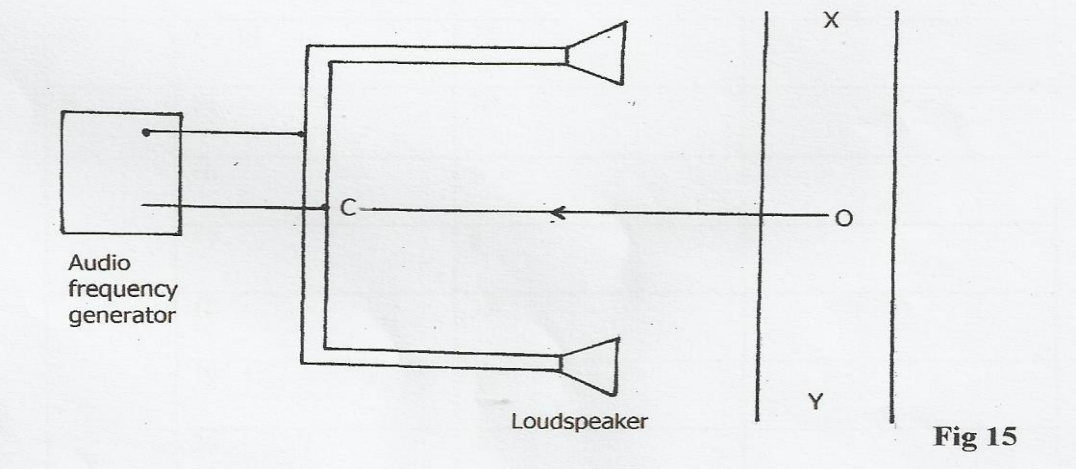

Fig 15

i) An observer O, moves along XY.

State the observation(s) made. **(1 mark)**

……

……

(ii) State what would be observed if a cathode ray oscilloscope is moved along line XY. **(1 mark)**

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(iii) What will a student hear if he moves along the line OC? **(1 mark)**

……

……

15. (a) State the conditions to be satisfied for total internal reflection to occur. **(2marks)**

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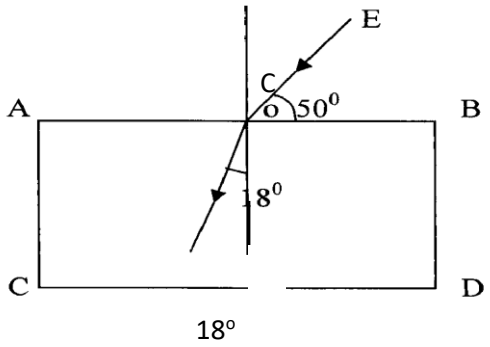
(b) A ray of light traveling in the direction EO in air enters a rectangular block as shown in the diagram. The resulting angle of refraction is 18°.



18°

Find:

(i) The refractive index of the block. **(2marks)**

……

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……

(ii) The critical angle C of the block. **(3marks)**

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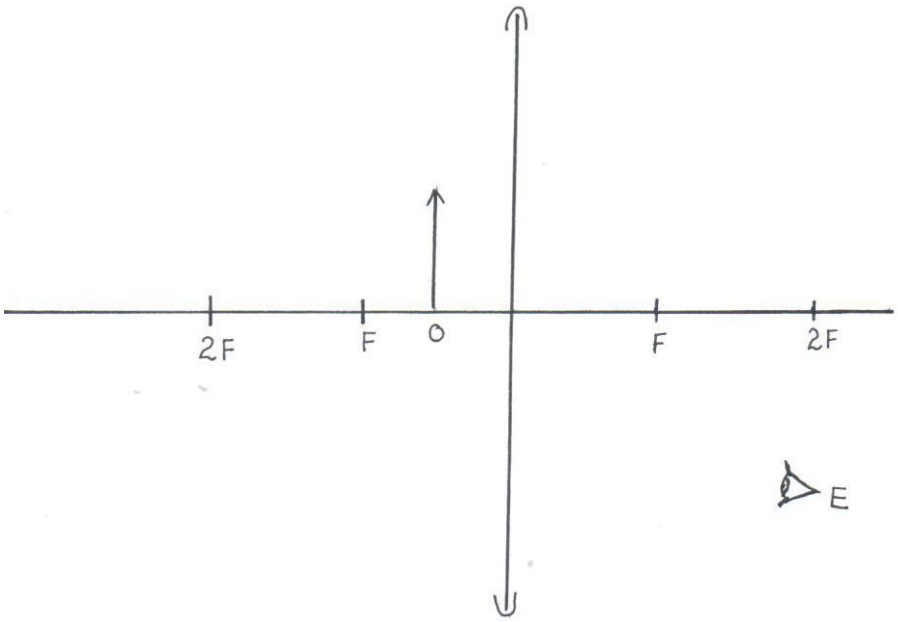
16.(a) The figure below shows an object in front of lens.



(i) Using rays locate the image as seen by observer, E. **(2 marks)**

(ii) Give **one** application of such a lens as used above. **(1 mark)**

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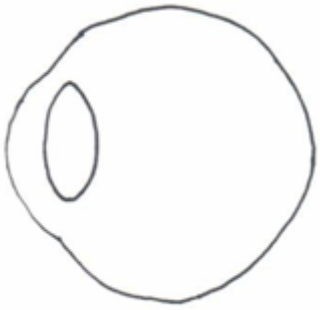
……

(b) Figure below shows a diagram of the human eye. Sketch a ray diagram showing how lens is used to correct long sightedness. **(2 marks)**



(c) An object of height 10.5cm stands before a diverging lens of focal length 20cm and a distance of 10cm from the lens. Determine;

(i) image distance. **(3 marks)**

……

……

……

……

(ii) height of the image. **(3mark)**

……

……

……

……

(iii) magnification. **(2 mark)**

……

……

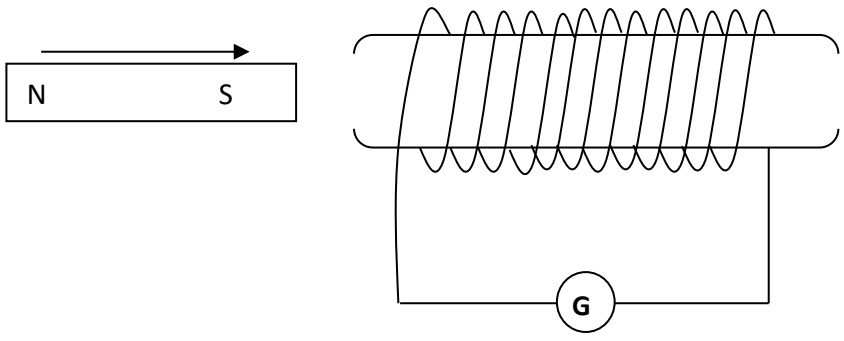
……

17. (a) State the Lenz's law of electromagnetic induction. **(1 mark)**

……

……

(b) A bar magnet is moved into a coil of an insulated copper wire connected to a zero centre galvanometer as shown below



(i) Show on the figure above the direction of the induced current in the coil **(1 mark)**

(ii) State and explain what is observed on the galvanometer when the south pole of the magnet is moved into and then withdrawn from the coil. **(2 marks)**

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……

(c) A transformer has 800 turns in the primary and 40 turns in the secondary winding.

The alternating voltage connected to the primary is 240V and current of 0.5.A. If 10% of the power is dissipated as heat within the transformer, determine the current in the secondary coil.

(3 marks)

……

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……

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KCSE 2024 MOKASA JOINT MOCK

SERIES 2

232/3

PHYSICS

PAPER 3 (PRACTICAL)

TIME: 2½ HOURS

SCHOOL…… **SIGN……**

(Kenya Certificate of Secondary Education)

CONFIDENTIAL

Question 1

Each candidate to have the following apparatus

- 2 new dry cells
- Cell holder
- Ammeter (0-1A)
- Voltmeter
- 6 connecting wires (at least 3 with crocodile clips)
- Nichrome wire SWG 28 (d=0.38mm) mounted on a mm scale with the ends labeled (A and B)
- A switch
- Micrometer screw gauge (may be shared)
- Jockey key.

Question 2

PART A

Each candidate to have the following apparatus

- Retort stand, clamp and boss
- A piece of thread (1.2 metre)
- Two small pieces of wood blocks
- Pendulum bob
- Meter rule
- Stop watch

PART B

Each candidate to have the following apparatus

- A concave mirror (Focal length = 16 cm)
- Mirror holder
- White screen
- Metre rule
- A candle

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

232/3

PHYSICS

PAPER 3 (PRACTICAL)

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

Instructions

- *Write your name, admission number, class and signature in the spaces provided at the top of the page.*
- *Answer **all** the questions in the spaces provided in this paper.*
- *You are supposed to spend the first 15 minutes of the 2 ½ hours allowed for this paper reading the whole paper carefully before your start.*
- *Marks will be given for clear record of observations actually made, for their suitability and accuracy, and the use made of them.*
- *Candidates are advised to record their observations as soon as they are made.*
- *Electronic calculators and mathematical tables may be used.*

FOR EXAMINER'S USE ONLY

Question(s)	Maximum Score	Candidate's Score
1	20	
2	**A** 11	
	B 9	
TOTAL	**40**	

QUESTION ONE.

You are provided with the following;

- 2 new dry cells
- Cell holder
- Ammeter (0-1A)
- Voltmeter
- 6 connecting wires (at least 3 with crocodile clips)
- Nichrome wire mounted on millimeter scale
- Micrometer screw gauge (may be shared)
- Jockey .

Proceed as follows;

a) Using micrometer screw gauge, measure the diameter, D of the nichrome wire.

i) D = _____ mm

ii) D = _____ m **(1mark)**

iii) The cross sectional area A is obtained by;

$A = \pi r^2$ Where r = D/2

Determine the cross sectional area (A) in SI units**.** **(2marks)**

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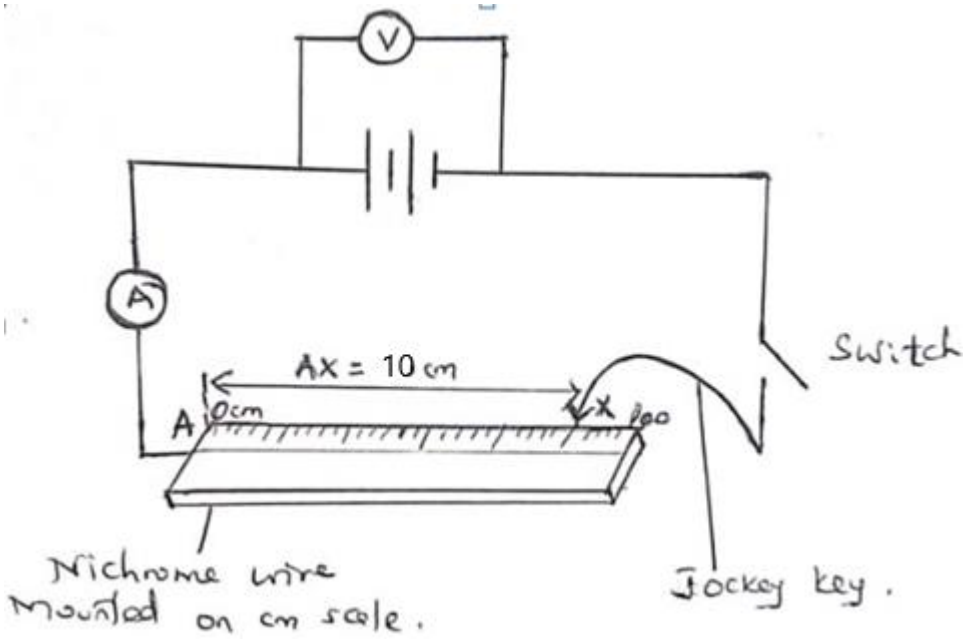
b) Set up the apparatus as shown below.



c) Record the e.m.f across the terminals of the dry cells when the switch is open.

Emf = _____

d) Adjust the position of jockey key such that length AX= 10cm.

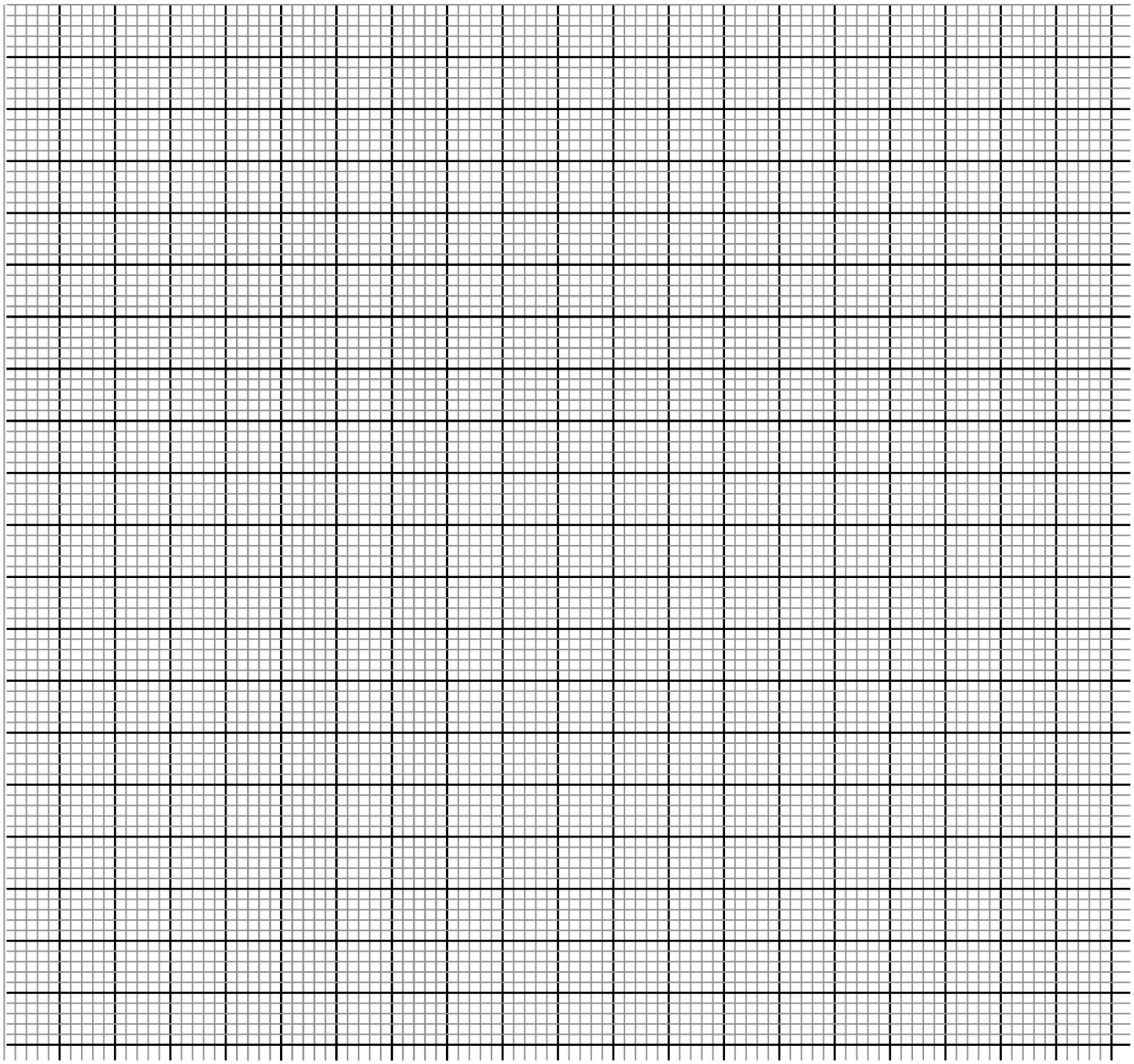
Close the switch and record the voltmeter and ammeter reading on the table given.

e) Repeat step d) above for the other lengths shown on the table.

f) Complete the table. **(5 marks)**

Length, L AX (cm)	10	20	30	50	70	80
Voltage (V)						
Current (A)						
Resistance(V/I) (Ω)						

g) Plot a graph of resistance (Ω) against Length (cm) on the graph provided below**.(5 marks)**



h) i) Determine the slope of your graph. **(3marks)**

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ii) The relationship between L and R is given by the equation; $\boldsymbol{R = \frac{\rho L}{A}}$**,** determine the value of ρ.

(2marks)

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iii) Suggest what constant ρ represents**.** **(1mark)**

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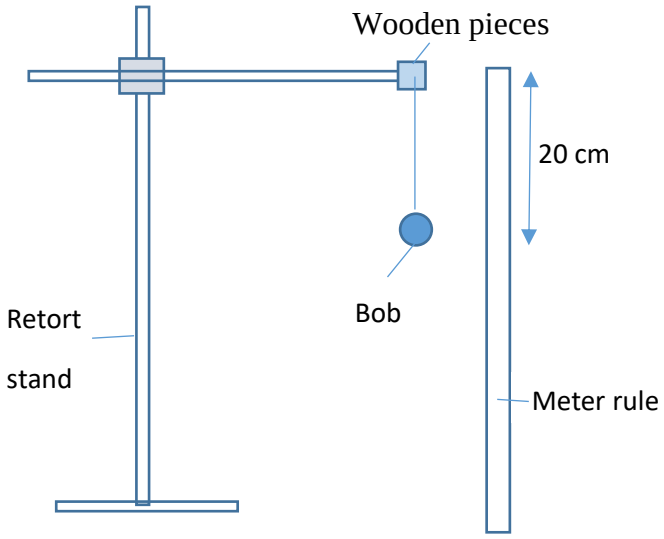
QUESTION TWO (A)

You are provided with the following apparatus;

- Retort stand, clamp and boss
- A piece of thread
- Two small pieces of wood blocks
- Pendulum bob
- Meter rule
- Stop watch

Procedure;

Tie the bob to one end ***20cm length*** of the thread and suspend it from the retort stand with the help of the wooden blocks as shown in the diagram.



Displace the bob by a small angle say 10^0; start the stopwatch simultaneously and allow it to swing to make **ten** oscillations. Stop the clock and record the time taken in the table below.

Length L (m)	**0.20**	**0.40**	**0.60**	**0.80**
Time t for 10 oscillations (s)				
Period T (s)				
T^2 (s^2)				
$Q = \frac{4\pi^2 L}{T^2}$				

Repeat the same procedure for different lengths of thread 40cm, 60cm, 80cm and record the corresponding times t taken in the table above.

Fill in the table above by determining the various values of T, T^2 and Q as stated in the table. **(8marks)**

Determine the average value of quantity **Q** and state its SI units **(2 marks)**

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Name the physical quantity represented by Q **(1 mark)**

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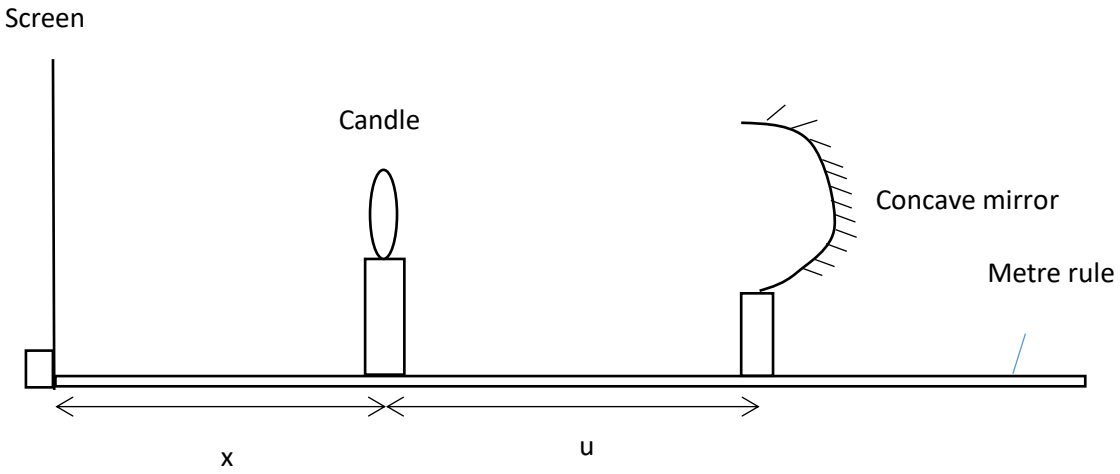
QUESTION TWO (B)

You are provided with the following apparatus.

- A concave mirror
- Mirror holder
- White screen
- Meter rule
- A candle

Procedure

i) Set the apparatus as shown in the diagram below



ii) Place a candle at a distance of x = 10 cm from the screen. Move the mirror to and fro to focus a clear, sharp image of the candle flame on the screen.

iii) Measure the distance u between the mirror and the candle and the distance v between the candle and the screen.

iv) Repeat the experiment for x = 15 cm and 20 cm. Complete the table below**.** **(6 marks)**

X (cm)	10	15	20	25
u(cm)				
$V = (u + x)$(cm)				
$Z = \frac{uv}{u+v}$ (cm)				

v) Determine the average value of Z. **(2marks)**

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vi) What is the significance of Z? **(1mark)**

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KCSE 2024 MOKASA JOINT MOCK

SERIES 2

443/1

AGRICULTURE

PAPER 1 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS:

a) -This paper has three sections A,B and C.

b) Answer all questions in sections A and B.

c) -Answer any two questions in section C.

For Examiners use:

SECTION	QUESTIONS	MAXIMUM SCORE	STUDENTS SCORE
A	1-16	30	
B	17-20	20	
C	21	20	
	22	20	
	23	20	
TOTAL		90	

SECTION A:(30MARKS)

Answer all the questions in this section

1.

a) State four importance of keeping livestock healthy. **(2mks)**

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2. Distinguish between the following practices as used in livestock production.

a) Crutching and ringing in sheep management**.** **(1mks)**

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b) Steaming up and flushing. **(1mks)**

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3. State 3 observable features that help to differentiate the Dromedary camel from the Bactrian camel **(1½mks)**

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4. Name two functions of the crop in digestive system of chicken. **(1 marks)**

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5. a) Give three reasons for candling eggs in poultry production**.** **(½ marks)**

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b) State three qualities of the shell that should be considered when selecting eggs for incubation **(1½ marks)**

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6. Give four predisposing factors to mastitis in dairy cattle **(2mks)**

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7. Outline four mechanical methods of controlling ticks**.** **(2mks)**

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8. State four structural features of idea calf pen **(2mks)**

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9. Give two problems associated with tractor hire services. **(1mk)**

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10. Give the functions of following farm tools and equipments. **(2mks)**

i) Sickle……

ii) Strip cup……

iii) Claw hammer……..

iv) Mason's trowel……

11. State four properties of a good vaccine. **(2mks)**

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12. Give four factors that affect digestibility of feeds in animals. **(2mks)**

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13. Outline four farm structures that are necessary for handling dairy animals. **(2mks)**

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14. Give three ways in which farmers market beef cattle in Kenya. **(1½mks)**

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15. List four farm implements attached to power take off(PTO) **(2mks)**

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16. State four practices that a farmer should carry out to reduce egg eating in poultry house. **(2 marks)**

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SECTION B:(20MKS)

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

17. A farmer wants to prepare 500kg of calf rearing ration containing 22%DCP using rice bran(10%DCP) and simsim seed cake(35%DCP).How much of each feedstuff should the farmer purchase to prepare the ration (show your working) **(5mks)**

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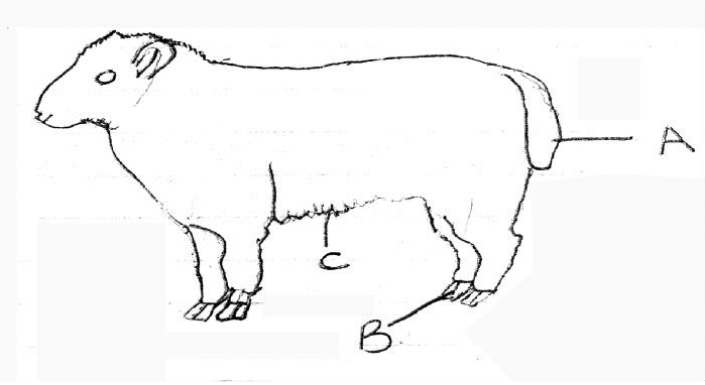
18. The diagram below illustrates livestock rearing practices. Study it carefully and answer the questions that follow:-



a) Identify the operation carried out on the part labeled A **(1 mk)**

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b) Give **two** reasons for carrying out the operation identified in (a) above **(2mks)**

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c) Mention **one** problem that would occur if the operation that should be carried out on part labeled B is not carried out **(1mk)**

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d) State **one** precautions that should be observed when shearing wool on part labeled C **(1mks)**

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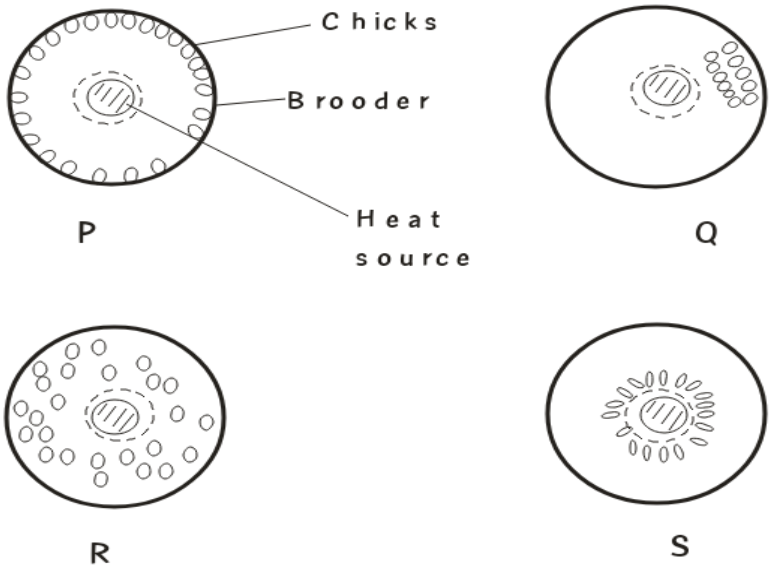
19. The diagrams below illustrate behavior of chicks in abrooder



a. Describe the behavior of chicks in brooders labeled Q, R and **S** **(3mks)**

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b. Mention two other observable behavior in chicks in brooder labeled P other than the behavior shown above **(2mks)**

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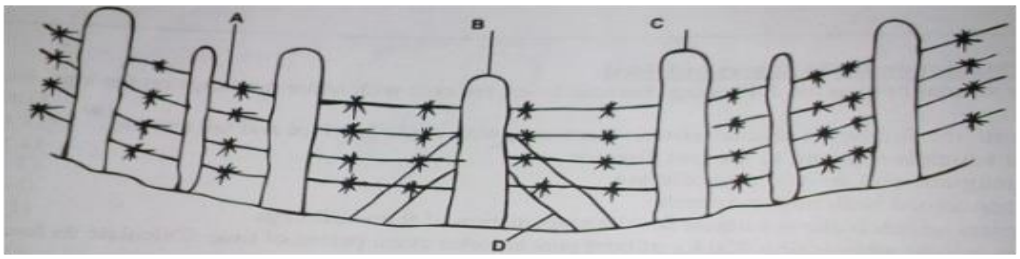
20. The diagram below represents an **important farms structure**. Study it and the answer. Study it and answer the questions that follow.



i) Identify the farm structure **(1mk)**

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ii) Label the parts. B and D **(2mks)**

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iii) State two maintenance practices carried out in the structure above. **(2mks)**

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SECTION C:(40MKS)

Answer any two questions in this section in the spaces provided.

21. **a)**Describe parts and functions of a plunge dips **(14mks)**

b)State six advantages of live fences. **(6mks)**

22. **a**) Describe the management of one day old chicks in a brooder until they are eight weeks**.(12mks)**

b) Explain four causes of cannibalism in poultry production. **(8mks)**

23. **a)** Describe Newcastle disease under the following sub–headings.

(i) i) Causal organism **(1mk)**

(ii) ii) Signs of infection **(7mks)**

(iii) iii)Control measures **(2mks)**

b) Explain five factors to consider when selecting a breeding stock. **(10mks)**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

443/2

AGRICULTURE

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 and index in the spaces provided above

b) Sign and write the date of examination in the spaces provided above

*c) This paper consists of **three** sections **A, B** and **C**.*

*d) Answer **all** the questions in sections **A** and **B**.*

*e) Answer any **two** questions in section **C***

FOR EXAMINER'S USE ONLY

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATES SCORE
A	1 – 29	40	
B	30 - 35	30	
C	36 - 38	20	
Total Score		90	

SECTION A (30 Marks)

*Answer **ALL** questions from this section*

1. What is apiculture? **(1 mark)**

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2. Name one livestock disease that is transmitted by the following parasites.

(a) Brown ear tick **(½ mark)**

(b) Tsetse fly **(½ mark)**

3. State the intermediate host for liver fluke Fasciola spp. **(½ mark)**

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4. State four breeds of rabbits. **(2 marks)**

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5. State two functions of a crop in a digestive system of chicken. **(1 mark)**

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6. State three ways of restraining cattle **(1½ marks)**

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7. State two livestock diseases caused by virus. **(1 mark)**

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8. State two types of selection practiced by livestock farmers **(1 mark)**

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9. State three ways of preventing predation in a fish pond **(1mark)**

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10. State four functions of feed additives in livestock production. **(2 marks)**

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11. State two types of calf pens. **(1 mark)**

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12. State advantages of embryo transplant. **(2 marks).**

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13. State two roles of testis in male reproductive system. **(1 mark)**

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14. Differentiate between mothering ability and prolificacy **(2 marks)**

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15. **State three** ways in which feeding contributes to disease control. **(1½ marks)**

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16. **State two** functional differences between rumen and abomasums. **(2marks)**

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17. Name four practices carried out in the crush **(2 mks)**

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18. Give three dual purpose cattle breeds **(1½ mks)**

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19. Give three terms used to describe the following: - **(1½ mks)**

(i) Mature male pig……

(ii) Sterilised birds ……

(iii) Mature female goat ……

20. State four reasons for identifying farm animals **(2mks)**

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21. State two factors that determine the quality of honey **(1mk)**

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22. Give four categories of livestock diseases **(2 mks)**

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23. Name three tools used for plumbing **(1½ mks)**

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24. State two maintenance practices carried out on an ox-drawn plough **(1 mk)**

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25. List two sources of farm's power which are environmental friendly **(1 mk)**

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26. State four functions of the lubricating system in a tractor **(2mks)**

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27. State two conditions under which a farmer would prefer to use an ox-cart instead of a tractor-drawn trailer **(1mks)**

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28. State four qualities considered when selecting a heifer for dairy purposes **(1mks)**

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29. Give one role of a damp proof course in the foundation of a farm building **(1mk)**

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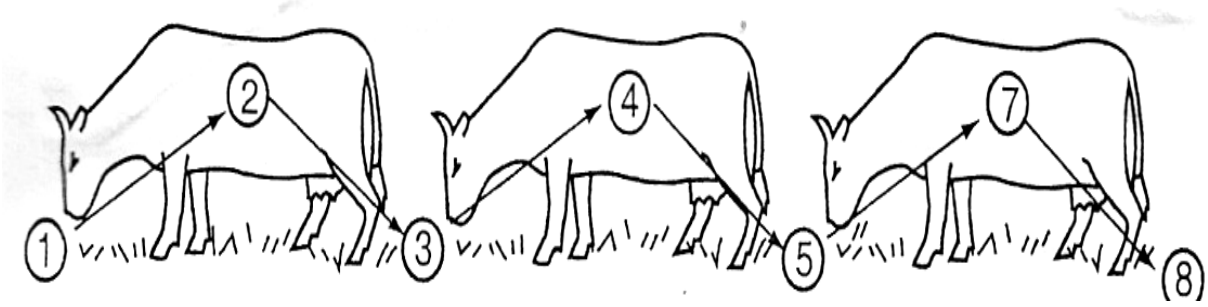
SECTION B (30MKS)

30. The illustrations below represents the stages of development of a three –host tick. Study it carefully and then answer the questions that follow:



(a) Briefly explain what is happening in the following stages **(4 marks)**

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5……..……..……..

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7……..……

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(b) Why do you think that tick control is difficult using acaricides? **(1 mark)**

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(c) Name the most common sites the tick can be found on the body of an animal**.** **(2 marks)**

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(d) Give **two** examples of a three host tick **(1mark)**

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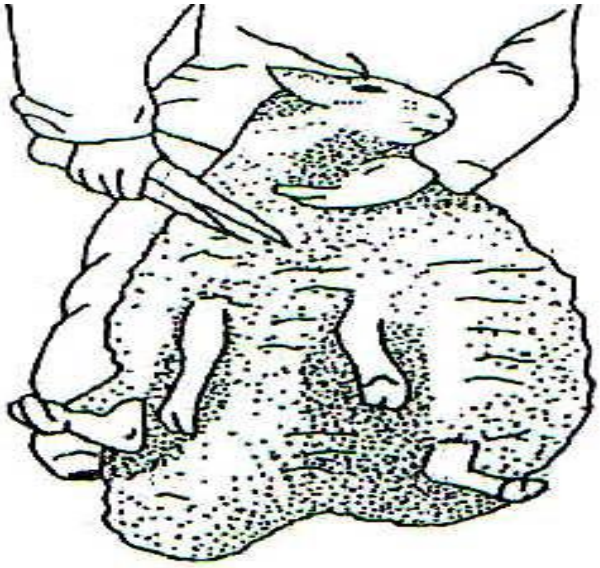
31. The diagram below illustrates a certain practice carried out in sheep management. Study carefully and answer the questions that follow



(i) Identify the practice illustrated above **(1mark)**

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(ii) State two precautions a farmer should put into consideration when carrying out this practice.

(2marks)

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(iii) How often should the practice be carried out? **(1mark)**

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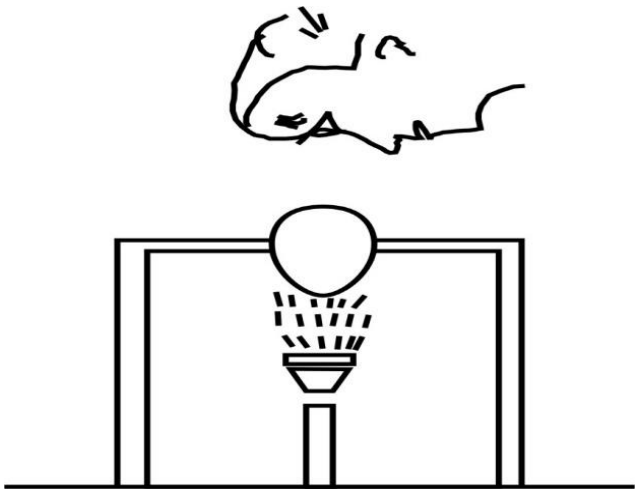
32. Below in an activity carried out in poultry production. Study it carefully then answer the questions that follow.



a) Identify the practice being carried out..... **(1 mk)**

b) State three defects that can be detected by this practice **(3 mks)**

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c) State two disadvantages of artificial incubation. **(2 mks)**

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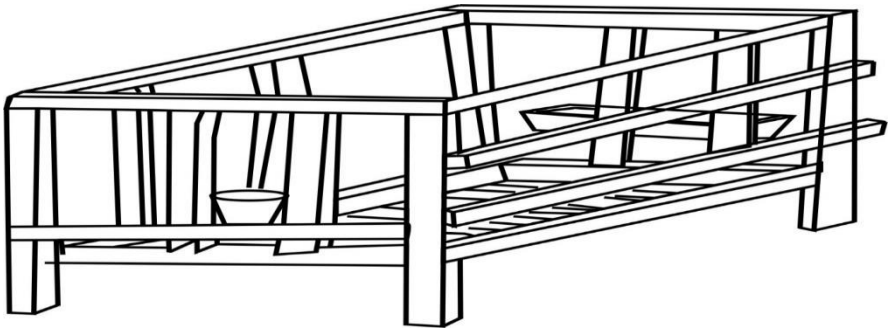
33. Use the above diagram of a calf pen to answer the questions that follow.



a) How high should the calf pen be raised from the ground **(1mk)**

b) Give any two reasons why calves are housed singly **(2mks)**

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c) Why should the calf pen be near the milking parlour? **(2mks)**

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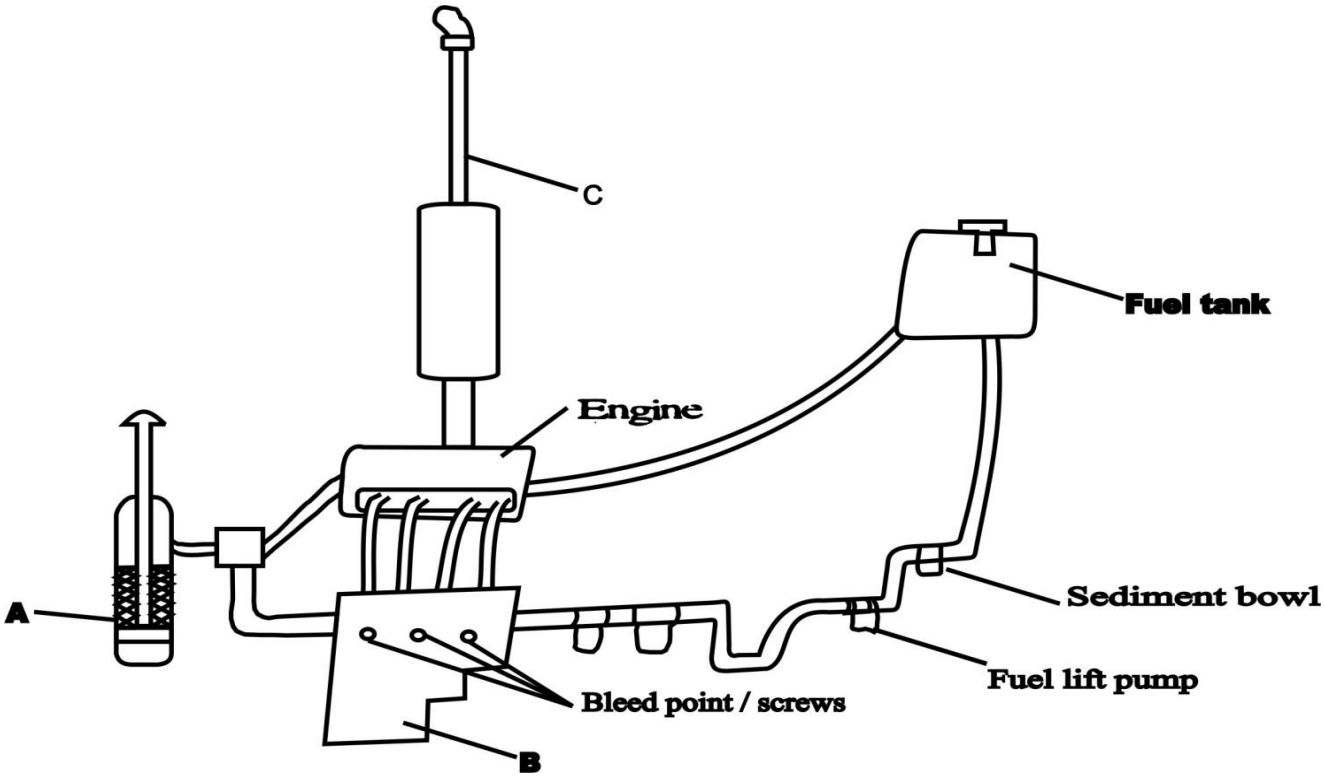
34. Study the diagram below of a diesel fuel system then answer the questions that follow.



a) Identify the parts labelled **(3 mks)**

A.....

B.....

C.....

b) State three maintenance practices carried out on the system **(2mks)**

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35. Outline the procedure of proper milking technique **(3 mks)**

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SECTION C (20MKS)

36. a) Outline five signs of heat in a cow **(5 mks)**

b) Outline five causes of stress in poultry and describe their control **(10mks)**

c) Using Pearson's square compute a ration with 20% DCP from oats which contains 10% DCP and simsim seedcake containing 60% DCP. (show your working) **(5mks)**

37. a) Outline the daily maintenance practices that should be carried out on a farm tractor **(8 mks)**

b) Outline twelve general symptoms of endoparasite attack in livestock. **(12 mks)**

38. a) State four advantages of using a sub soiler in seedbed preparation **(4mks)**

b) Give five advantages of artificial insemination in cattle **management** **(5mks)**

c) State five function of water in animal's body **(5mks)**

d) Describe control measures for tape worm in livestock **(6mks)**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

565/1

BUSINESS STUDIES

PAPER 1

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS

- *Write your name, Index No. , signature and date in the spaces provided above.*
- *This paper consists of twenty five questions.*
- *Answer All the questions.*
- *All answers must be written within the provided space.*
- *Write your answers in English.*

FOR EXAMINER'S USE ONLY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13
Score													

Question	14	15	16	17	18	19	20	21	22	23	24	25
Score												

GRAND TOTAL

Answer All the questions

1. State four reasons why itinerant traders are becoming increasingly popular in Kenya. **(4marks)**

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2. State four factors that lead to ineffective services in a warehouse. **4marks)**

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3. Classify the following factors as either internal or external business environment. **(4marks)**

Factors	**Business**
(a) Political factor	
(b) Economic recession	
(c) Business structure	
(d) Employees	

4. State four reasons why one would prefer partnership instead of sole proprietorship.**(4marks)**

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5. Highlight four ways in which a monopolistic competition differs from a pure monopoly.**(4mrks)**

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6. The following balances were obtained from the books of Omweri traders.

Sales	-	360,000
Opening stock	-	50,000
Gross profit	-	25% of sales
Closing stock	-	70,000

Calculate:

(a) Cost of goods sold. **(2marks)**

(b) Rate of stock turnover **(2marks)**

7. State four ways a country may benefit from high population **(4marks)**

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8. Outline four advantages of transporting oil by pipeline rather than by road. **(4marks)**

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9. State four reasons why consumers find it difficult to satisfy their needs. **(4marks)**

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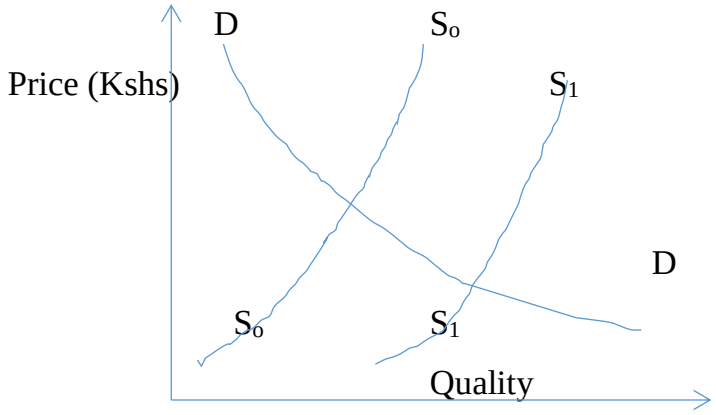
10. Using the diagram drawn below state the effect of shift in supply as indicated. **(4marks)**



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11. State four sources of government revenue. **(4marks)**

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12. Secretarial bureaus are usually found in urban centres. State four reasons that may account this type of location. **(4marks)**

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13. Name the insurance policy a school can take to cover the following risks. **(4marks)**

Risk	**Insurance policy**
(a) Losses arising from debtors failure to pay their debts	
(b) Injury caused by a school dog to a passer-by	
(c) Loss of cash when being transported to the bank	
(d) Loss of goods through dishonesty of an employee	

14. Record the following transactions in the general journal of Velma Traders. **(4marks)**

(a) On 2nd January 2009 sold office equipment to Faith Traders on credit for sh. 20,000

(b) On 5th January 2009 bought motor vehicle sh. 300,000 on credit from Sarah enterprises.

(c) On 10th January 2009, bought lawnmower on credit for sh. 70,000 from Veronica.

(d) Wrote off a debt of sh. 50,000 due from Mueke on 12th January 2009.

15. Outline four services that facilitate communication. **(4marks)**

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16. Highlight four limitations of adopting a new technology in business. **(4marks)**

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17. Record the following transactions in the relevant ledger accounts. **(4marks)**

2020

June 1: Ochieng started a business with sh. 50,000 cash

June 4: Bought office equipment for sh. 2,000

June 6: Deposited sh. 12,000 into the business bank account.

June 8: Bought stock worth sh. 10,000 by cheque.

18. State four factors that influence the amount of money held by an individual for precautionary motive. **(4marks)**

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19. Below is a two column cash book.

Date	Details	L.f	Cash	Bank	Date	Details	l.f	Cash	Bank
1/2/2022	Bal b/d		5,000		1/2/2022	Bal b/d			3,000
4/2/2022	Sales			7,000	3/2/2022	Equipment		2,000	
					6/2/2022	Juma			1,000

Describe the transactions that took place on the dates

(i) 1/2/2022 ……

(ii) 3/2/2022 ……

(iii) 4/2/2022 ……

(iv) 6/2/2022 ……

20. Outline four circumstances under which a manufacturer would prefer to sell his product directly to customers instead of selling through intermediaries. **(4marks)**

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21. State four factors that may cause the capital of a business to change and how**. (4marks)**

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22. State four benefits a producer is likely to experience from using shows, trade fairs and exhibitions to promote his/her products. **(4marks)**

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23. State four uses of a business plan. **(4marks)**

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24. State demerits of government involvement in business. **(4marks)**

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25. Outline four characteristics of under-developed countries. **(4marks)**

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KCSE 2024 MOKASA JOINT MOCK

SERIES 2

565/2

BUSINESS STUDIES

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS

- Write your name, Index No. , signature and date in the spaces provided above.
- Answer any five questions in the foolscaps provided.

FOR EXAMINER'S USE ONLY

1a	b	2a	b	3a	b	4a	b	5a	b	6a	b

TOTAL

Answer any five questions

1. (a) Explain any five accounting documents used in home trade. **(10marks)**

(b) Discuss five negative effects of inflation in the economy of Kenya. **(10marks)**

2. (a) Discuss five factors that will make two people wishing to take a life assurance policy to pay different premiums. **(10marks)**

(b) Explain five reasons why small firms continue to exist in an economy dominated by large scale firms. **(10marks)**

3. (a) Alukumu would wish to import a V8 car from Japan discuss five possible channels of distributing the car. **(10marks)**

(b) The following balances were extracted from Wakasungula's traders. Cash at hand sh. 180,000and cash at Bank sh. 67,000 at 1st January.

Jan. 2: Cash sales directly banked sh. 34,500

3: Cash taking of sh. 20,000

4: Purchased goods on credit from Sagini sh. 30,000 Pesh. Sh. 25,000 and Cosmo sh. 38,000

5: Sagini and Pesh returned faulty goods worth sh. 10,000 each.

6: Sharlet a debtor paid cash sh. 30,000 in full settlement of the debt after being allowed a 10% discount.

8: Paid the following accounts by cheque after deducting 5% in each case: Sagini sh. 15,000, Pesh sh. 10,000 and Cosmo sh. 30,000

9: Received a cheque from debtor sh. 20,000

10: Too cash to the bank sh. 32,000.

12: Paid salaries sh. 10,000 in cash and sh. 37,000 by cheque.

20: The cheque received on 9th was dishonored and there were bank charges of sh. 2,200.

29: Withdrew sh. 20,000 from bank for her daughter's medication.

30: Deposited all the cash to the bank except sh. 2,000

Required:

Prepare a duly balanced three column cash book. ***(10marks)***

4. (a) Explain any five roles of the Nairobi securities exchange market. **(10marks)**

(b) Explain five factors why the National income statistics

5. (a) Explain five ways in which the utility of maize can be increased. **(10marks)**

(b) The following trial balance relates to Nyamira traders Ltd. As at 31st March 2015.

Nyamira Traders
Trial balance
As at 31st March 2015

Detail	Dr.	Cr.
Capital		400,000
Sales		560,000
Purchase	100,000	
Returns	500	1,000
Carriages	15,000	6,000
Opening stock	50,000	
Discounts	2,000	4,000
Rent		16,000
Insurance	8,000	
Machinery	560,000	
Transport	1,000	
Wages	10,000	
Debtors	400,000	
Creditors		60,000
5 year loan		200,000
1 year loan		75,000
Furniture	60,000	
Premises	40,000	
Overdraft		37,000
Cash	500,000	
Bank	100,000	
	1,353,000	**1,353,000**

The closing stock was valued at sh. 60,000.

Required:

(i) Prepare a trading, profit and loss account.

(ii) Prepare a balance sheet as at 31st March 2015.

6. (a) There has been an increase in demand for pork at Funyula market. Discuss any five factors that may have contributed for this situation. **(10marks)**

(b) Discuss how the introduction of money eliminates problems faced in Butter trade.

(10marks)

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

101/1

ENGLISH

PAPER 1*(Functional Skills)*

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) *Answer all the questions in this paper*

c) *All answers must be written in the spaces provided in the question paper.*

d) *Candidates must answer answer the questions in English.*

FOR EXAMINERS USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATES SCORE
1	20	
2	10	
3	30	
TOTAL SCHOOL	**60**	

1. FUNCTIONAL WRITING (20MKS)

You are the patron of the Drama Club in Fanikiwa High School. Following the recent meeting that was held at the end of term 1, members of the club suggested to visit Nairobi National Theatre where the famous Sultana play will be staged. The theatre coordinator, Mr. Juma Harris says that the Club can visit them on 2nd August,2023. Write a memo to the principal reminding him of the planned visit, the purpose of the visit and the need to arrange for the members' meals and means of transport before the scheduled date. Remember to send a copy to the bursar.

2. CLOZE TEST (10MKS)

Read the passage below and fill in each blank space with the most appropriate word. (10mks)

Are leaders born or they are created out of circumstance and experience? The debate (1) _____ this topic has gone on as the chicken- and -egg (2) _____. There are strong points for (3) _____ side. For our purpose, we will say that the answer is a little bit of (4) _____. Some individuals such as royalty are born and bred to (5) _____ on leadership roles in later life. Other people develop into leaders over a sustained (6) _____ of time. This is the type of leader (7) _____ should all strive to become. All too (8) _____people find themselves in awe of great leaders wondering where do beings like these come from? What these same individuals fail to recognize is that (9) _____ personality and luck can (10) _____ to a leader's success, those things are not the essence of what makes an exceptional leader.

(Adapted by Mwalimu Cosultancy Ltd from: Everything Leadership Book by Bob Adams)

3. ORAL SKILLS (30MKS)

a) <u>Read the poem and answer the questions that follow.</u>

<u>A NIGHT MAIL</u>

This is the night mail crossing the border
Bringing the cheque and the postal order.
Letter for the rich, letter for the poor
The shop at the corner the right girl next door
Pulling out the beat lock a steady climb
The gradient's against her", but she's on time
Past cotton grass and moorland boulder
Shoveling white steam over her shoulder
Snorting noisy, she passes
Silent miles of miles of wind-bent grass

i) Describe the rhyme scheme of the poem. **(2mks)**

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ii) Identify any 3 pairs of rhyming words in the poem. **(3mks)**

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iii) Which words will you stress in line two of the poem and why? **(2mks)**

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……

……

iv) Which intonation will you use for the last line of the poem? why? **(1mk)**

……

……

b) Provide homophones for the following words **(5mks)**

i) Key ……

ii) Kernel……..

iii) Gate……..

iv) Won……

v) Soot…….

c) Underline the silent letters in the following words. **(3mks)**

i) Parliament

ii) Weapon

iii) Honour

d) Identify the odd one out according to the underlined sound. **(3mks)**

i) Visual Pleasure Passion

……

ii) Religion Respect Referee

……

iii) Gestures Games Jugs

……

e) Underline the stressed syllable in the following words. **(3mks)**

i) Chal-lenge

ii) Ad-vice

iii) Dis-like

f) Your class had invited a former student, now employed by a top company to give a talk on "Succeeding in the corporate world". However, during the talk, you realized that most of your classmates are not concentrating. List four things on the part of the speaker that contributed to this. **(4mks)**

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g) On your way home from school, you meet a lady who tells you that she is lost. She requests you to give her directions to the nearest hospital. How would you ensure that the directions you give enable her to reach her destination? **(4mks)**

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KCSE 2024 MOKASA JOINT MOCK

SERIES 2

101/2

ENGLISH

PAPER 2

(Comprehension, Literary appreciation and Grammar)

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 space provided above.*

b) *Sign and write the date of examination in the space provided above.*

c) *Answer all the questions in this paper.*

d) *All your answer must be written in the space provided in this question paper.*

For Examiner`s Use Only

Question	Maximum Score	Candidate's Score
1.	20	
2.	25	
3.	20	
4.	15	
TOTAL SCORE	**80**	

1. **COMPREHENSION (20 MARKS)**

Read the passage below and answer the questions that follow.

Africa is undoubtedly a very enduring race and has the capacity to utilize the available natural resources for the betterment of life. The biggest challenge, however, is to identify ways and means of creating an environment that is likely to encourage development in Africa. Perhaps the greatest strategy would be to develop political structures and government institutions that have the capacity to formulate and implement genuine poverty alleviation strategies'. Administrative arrangements that no longer serve our needs should be overhauled or discarded altogether. Government should foster exploitation and management of natural resources by providing an enabling environment. Having stable government may not be effective if we don't fight corruption. We should ensure that leaders and government agents become answerable to the tax payer. The public should be educated on the ills of corruption. Those who have stolen public funds must be made to return them and face the full force of the law. Again, people known to have **stashed** money in foreign banks should be forced to repatriate that money so as to improve cash flow in our economies.

Apart from this, Africa must find a way of solving their internal conflicts without involving the international community. After all, we are all brothers with a common cause. The need to unite and exist as unitary state should be stressed as this over rides clan and tribal rights or sentiments that fuel animosity. TheAfrican union should be strengthened to enable it to arbitrate intra and inter-state disputes. The resulting peace will provide a suitable environment for economic growth and set us on the road to recovery and prosperity. Another solution would be to develop rural-based economies, since the bulk of our population live in the rural areas. Industries that process farm produce and those that manufacture farm inputs, machinery and implements should be located in the rural areas. Similarly, mining concerns should establish processing plants near the mines. Such industries will naturally recruit man power from the locality and consequently, reduce the incidence of rural-urban migration. Setting up industries in the rural areas will necessitate development of infrastructures which will open up rural areas for business. This will further encourage expansion and increase food production to counter perennial food shortage in Africa. For instance, development of dairy and beef processing industry in the rural areas will encourage sustainable livestock keeping and probably bring to an end loss of cattle to drought. A rural based economy will basically raise the income of the rural people and bridge the **disparity** between the rich and the poor.

We should also introduce appropriate technology in exploitation of natural resources and in wealth creation. Since imported technologies are expensive to maintain, Africa should tap local expertise to develop technologies appropriate to our needs. Home grown technology should enable us alleviate Africa's food security by utilizing river and lake water for irrigation and by harnessing wind and solar energy.

Lastly, our economic units such as ECOWAS, SADC, and EAC should be transformed into common markets by removing unnecessary tariffs on goods at various entry points so as to realize the benefits of a common market. The people of Africa should continually seek a better life. We have the resources; we have the manpower, and the capacity to make things move.

a) What should African countries do to fight corruption based on the information contained in the passage? **(2 marks)**

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b) Explain how Africans can open up rural areas**.** **(2 marks)**

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c) What do you understand by the term 'genuine poverty alleviation strategies'? **(2marks)**

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d) How can we reduce the incidence of rural– urban migration? **(2marks)**

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e) Why is appropriate technology useful**?** **(1 mark)**

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f) In not more than **fifty** words, write a summary on the various ways of fostering development in African countries. **(5 marks)**

Rough copy

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Fair copy

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g) What is the tone of the last paragraph of this passage concerning future Africa? **(3 marks)**

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h) The public should be educated on the ills of corruption. (Add a question tag) **(1 mark)**

……

i) Explain the meaning of the following words as used in the passage**.** **(2 marks)**

i.Stashed……

ii. Disparity…….

2. **EXCERPT (25MKS)**

Read the excerpt below and answer the questions that follow

First, there was a loud crash. Some moving object had hit another moving object. A trailer hooked to a truck negotiating a turn at a roundabout had broken free, spun outward, and ended up on top of a minibus in an adjacent lane.

The drivers of both vehicles had then run away. They had done so to avoid mob justice. Now the passengers in the unlucky minibus were struggling to get out, except for one—a woman trapped in a seat.

A man had seen her on his way out. He tried to go back in and get her out, but all doors had jammed. He pulled a mobile phone out of his pocket and called the mystical number — 999 — to report distress and request help.

The hour was ten in the morning. Onlookers started arriving. First, they only gawked, fascinated by the spectacle of a trailer sitting on top of a minibus. Goodness, how did it get there! Later, their attention moved down to the woman trapped inside the minibus. "Look," said one onlooker. A beautiful girl was trapped in her seat.

She was still conscious. "She is fine, then," said another onlooker. "Come on," said the first onlooker. "A heavy trailer is sitting on her minibus, so how can she be fine?" When the onlookers became a crowd, they tried to push the trailer off the minibus.

They failed. Then a big van appeared...

QUESTIONS

a) Put this excerpt in its immediate context. **(4 marks)**

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……

b) Give the character traits of the following**:** **(6 marks)**

The man_

The onlookers

The drivers

c) From elsewhere in the novel, how does conflict arise between Kimani and Asiya over the death of their daughter? **(4 marks)**

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d) How is dialogue significant in this excerpt? **(4 marks)**

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e) Identify and explain one stylistic device used in the extract. **(3 marks)**

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f) "The hour was ten in the morning." Rewrite this statement beginning with: **(1 mark)**

It__

g) Explain the meanings of the following words as used in the excerpt. **(3 marks)**
Gawked

Fascinated

Conscious

3. **ORAL NARRATIVE (20 MARKS)**

Read the oral narrative below and answer the questions that follow.

A long, long time ago, The Moon sent an insect to men, saying," Go tell men and tell them,' As I die, and dying live, so you shall also die and dying live'"

Theinsectstartedwiththe message,butwhileonhisway, wasovertakenbyhare, whoasked, "Onwhaterrand areyoubound?"

The insect answered, I am sent by the Moon to men, to tell them that as she dies and dying lives, so shall they also die and dying live."

The hare said, "As you are an awkward runner, let me go." With these words, she ran off, and when he reached men, said, "I am sent by the Moon to tell you, 'As I die and dying perish, in the same manner you also shall die and come wholly to an end.'"

The hare then returned to the Moon and told her what he had said to men. The Moon reproached him angrily saying, "Do you dare tell the people a thing which I have not said?"

Withthese words theMoontook upapieceofwoodandstruckthe hareonthe nose.Since thatdaythe hare'snose hasbeenslitbutmenbelievewhathare hadtoldthem. My story ends there.

(Taken from <u>African Folk tales</u>; edited by Paul Radin)

a) Classify this oral narrative. **(2mks)**

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……

……

b) What evidence is there in the story to show that it is a translation**?** **(2mks)**

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c) Identify and illustrate any two features of oral narratives evident in this narrative. **(2mks)**

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d) Describe the character of men as evident in the above narrative. **(2mks)**

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e) What does this story reveal about death? **(2mks)**

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f) How different is the Moon's message from the one delivered by the hare? **(2mks)**

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g) Describe one social activity of the society portrayed in the story? **(2mks)**

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h) Describe the tone projected in this narrative? **(2marks)**

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i) Explain the moral of this story. **(2 mark)**

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j) Give the functions of the formulae used at the beginning and the end of the story respectively. **(2mks)**

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……

3. <u>GRAMMAR (15 MARKS)</u>

a) Rewrite the following sentences according to the instructions given **(3 marks)**

(i) I like Nairobi more than Machakos. (Use prefer)

……

(ii) The army has rounded all the bandits (Begin All the bandits….)

……

(iii) We employed the young man in place of his late father. (Begin: In place of…)

……

b) Use the correct form of the word in brackets to fill in the blanks. **(3 marks)**

(i) There was enough……(prove)that examination had leaked.

(ii) Origi is the……...…(clever)of the three.

(iii) The painting was……(steal)from the museum.

c) Replace the underlined words with appropriate phrasal verbs**.** **(3mks)**

(i) I was completely <u>deceived</u> by the thief.

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(ii) The teacher ordered the students to <u>submit</u> their scripts at the end of exam.

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(iii) After several warnings, the county government finally <u>demolished</u> all the structures on government land.

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d) Fill in the blank spaces in the following sentences with the most appropriate preposition. **(4mks)**

(i) Inoculation gives protection_____infection.

(ii) We agreed_____the general procedure.

(iii) It has been the same old story ever_____he was a small boy.

(iv) Every member is entitled_____one acre of land.

e) Explain the difference in meaning in the sentences below**.** **(2marks)**

(i) He stopped to dance

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……

……

(ii) He stopped dancing

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……

……

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

101/3

ENGLISH

PAPER 3

(Creative Composition and Essay Based on Set Text)

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO THE CANDIDATES

1. *Write your details in the spaces provided at the top of this page.*
2. *Answer **three** questions only.*
3. *Questions **one** and **two** are **compulsory**.*
4. *In question **three** choose only **one** of the optional texts you have prepared for.*
5. *Where a candidate presents work on more than one optional text, only the first one to appear will be marked.*
6. *Each of your essays must **not** exceed **450** words.*
7. *Candidates should check to ascertain that no questions are missing.*
8. *Candidates must answer the questions in English.*

For Examiner's Use Only

Question	Maximum score	Candidate's score
1	20	
2	20	
3	20	
Total	**60**	

QUESTIONS

1. Imaginative Composition **(20marks)**

Either

a) Write a story to illustrate the saying: A bird in hand is worth too in the bush.

Or

b) Write a composition to show how children can be of help to their parents during school holiday.

2. The Samaritan; John Lara **(20marks)**

When a society elects selfish leaders, they bear the full brunt. Using examples from the Play *The Samaritan*, write a composition to show the truth of this statement.

3. Optional Set Texts **(20marks)**

Answer one question only

Either

Short Story; Siundu Godwin; A Silent Song and Other Stories

a) Traditional practices are meant to create order and harmonious co-existence. When anyone defies them, they bound to suffer. Drawing illustrations from Ng'maryo's story *Ivory Bangles*, write an essayto show the truth of this statement.

Or

b) Play: Adipo Sidang'; Parliament of Owls

Using specific examples from *Parliament of Owls*, write a composition to show that propaganda is atool used by the leaders to perpetuate impunity.

Or

c) The Novel; Kazuo Ishiguro; An Artist of the Floating World

You cannot run away from your past. Drawing specific illustrations from the Kazuo's *An Artist of theFloating World*, write an essay to show the truth of this statement.

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

102/1

KISWAHILI

KARATASI YA 1

INSHA

MUDA: SAA 1¾

JINA……

SHULE…… SAHIHI……

NAMBARI YA USAJILI…… MKONDO……

Cheti cha Kuhitimu Kisomo cha Sekondari (KCSE)

Maagizo

a) *Andika insha mbili. Insha ya kwanza ni ya lazima*

b) *Kisha chagua insha nyingine moja kati ya hizo tatu zilizobakia*

c) *Kila insha isipungue maneno 400*

d) *Kila insha ina alama 20*

Kwa matumizi ya mtahini pekee.

Swali	Upeo	Alama
1	20	
2	20	
Jumla	40	

1. LAZIMA

Wewe ndiwe mhariri wa jarida la **MSINGI IMARA** litakalochapishwa shuleni mwishoni mwa mwaka. Andika tahariri juu ya vyanzo vya mikasa ya moto katika shule za sekondari, kisha upendekeze hatua zinazoweza kuchukuliwa ili kuzuia visa hivyo. **(alama 20)**

2. Wananchi ndio wa kulaumiwa kwa sababu ya kudorora kwa usalama nchini Kenya. Jadili.

(alama 20)

3. Andika kisa kitakachoafiki maana ya methali: Kidole kimoja hakivunji chawa. **(alama 20)**

4. Andika insha itakayokamilika kwa maneno yafuatayo:

….tangu siku hiyo nikaamini kuwa kila jinsia ina umuhimu wake. **(alama 20)**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

102/2

KISWAHILI

KARATASI YA 2

LUGHA

MUDA: SAA 2½

JINA……

SHULE…… SAHIHI……

NAMBARI YA USAJILI…… MKONDO……

Cheti cha Kuhitimu Kisomo cha Sekondari (KCSE)

MAAGIZO

- Andika **jina lako**na**namba yako** katika nafasi ulioachiwa hapo juu.
- Jibu maswali yote.
- Andika majibu yako katika nafasi ulizoachiwa katika kijitabu hiki cha maswali.

KWA MATUMIZI YA MTAHINI PEKEE.

	SWALI	UPEO	ALAMA
1.	Ufahamu	15	
2.	Ufupisho	15	
3.	Matumizi ya lugha	40	
4.	Isimujamii	10	
	Jumla	80	

UFAHAMU (ALAMA 15)

Soma kifungu kifuatacho kisha ujibu maswali .

Gari lake kuukuu lilikuwa linapambana na barabara yenye mashimo yaliyoshiba na kutapika maji ya mvua ambayo sasa ilikuwa inaanza kupusa . Japo daima alipambana na usukani kunako mashimo haya yaliyotosha kuitwa magenge , alishukuru kwa hali hii. Vipi angeweza kulidhibiti gari lake hili kwenye barabara iliyosakafiwa nayo ikahitimu . Magurudumu haya yaliyong'ara kama upara wa shaibu aliyekula chumvi hadi iikamwogopa yangeyii uelekezi wake . Mara ngapi gari hili limetaka kumwasi barabarani . Haya yalikuwa baadhi ya maswali yaliyompitikia akilini . Hakujitakilifu kutaka kuyapa mji maana mara ile mawazo yake yalitekwa na kubwagwa katika nchi ya mbali - nchi ambayo sasa aliiona kama sinema akilini mwake .

Alipofika nyumbani aliliegesha gari lake na kufululiza ndani . Siku mbili zilikuwa zimepita akiwa pale kazini . Madaktari kama yeye hawakuwa wengi . Alikuwa miongoni mwa madktari wenye ujuzi katika hospitali hii ya kitaifa . Wenzake wengi walikuwa wamehamia ughaibuni walikokwenda kutafuta maisha . Mshahara wao wa mkia wa mbuzi uliwasukuma na kuwatema nje ya nchi yao . Wengi wa waliohamia ng'ambo waliona vigumu kubaki katika ajira ambayo kivuno chake kilishindwa kumvusha mtu hata nusu ya kwanza ya mwezi . Malalamishi ya kulilia ujira wa heshima yaligonga kwenye masikio yaliyotiwa zege . Na kweli wanavyosema , mwenye macho haambiwi tazama . Basi walitazama hapa na pale wakaona penye mianya ya matumaini , nao wakaiandama .

Hadi leo hii hamna la mno lililofanyika . Ndiyo maana Daktari Tabibu anarudi nyumbani tangu kuingia kazini hiyo juzi alfajiri . Hafanyi kwa kuwa katosheka , maana pia yeye ana dukuduku . Ana shaka ya mustakabali wake ikiwa mazingira ni haya ya kumsoza , maana umri nao unazidi kumla . Japo anatia na kutoa , mizani ya hesabu yake imeasi ulinganifu .

Daktari Tabibu waama ni mfungwa . Ametekwa na kuzuiwa katika kupenda na kuchukia mambo .

Ni kama mti uliodumaa . Anatamani barabara nzuri za lami . Anatamani mshahara wa kumwezesha kukidhi mahitaji yake na kutimiza majukumu yake ya kimsingi . Jana amesema na rafiki yake aliye ng'ambo kwa simu ambayo sasa imetulia mkabala naye . Ingawaje mwenzake huyu alikuwa mchangamfu na kumdokolea hali ya maisha ya kuridhisha kule ugenini kama vile wanataaluma kuenziwa , yapo vilevile yaliyomtia unyonge moyoni . Upweke ndio uliomtia fukuto kuu . Licha ya hela zote hizo za kupigiwa mfano , watu hawana muda wa kutembeleana na kujuliana hali au hata kukutana tu mkahawani wakashiriki mlo . Eti ni kila mtu na hamsini zake . Halafu ipo changamoto ya hali ya hewa . Baridi ya ng'ambo haifanyi mzaha katika kumtafuna mtu . Ni hali tofauti na ile aliyoizoea .

Daktari Tabibu alizitia kauli za rafiki yake kwenye mizani ya moyo wake . Akawaza ikiwa kweli si bora kulemazwa na mzizimo ugenini badala ya kuishi katika kinamasi cha kuumbuliwa nyumbani . Kisha punde lilimjia wazo la marehemu nyanyake na wengine

kama yeye waliofadhili masomo yake kupitia kwa serikali na njia ya kodi . Je , si usaliti huu . Vipi aikimbie nchi kabla ya kuihudumia ilhali imemjenga hadi kuwa daktari . Na je , wafanyakazi wake wa nyumbani watakwenda wapi . Atawaambia kuwa sasa hahitaji huduma zao kwa kuwa anakimbia nchi yake .

Mawazo yake yalikatizwa na simu iliyolia na kumshtua . Alipoitazama aliiona imeng'ara kwa mwangaza ulioweka wazi jina la mpigaji . Alifahamu kuwa leo hii tena dharura nyingine ilikuwa inamwalika hospitalini . Mwili wake ulimsaliti ingawa moyo wake ulimkumbusha kuwa lisilo budi hutendwa . Hapo ndipo alipoiinua ile simu tayari kusema na mwenzake upande wa pili .

"Haloo ! ' Sauti nyororo kutoka upande wa pili iliita .

" Haloo ! "

"Naam ! Dharura nyingine tena daktari . Unaombwa kuokoa maisha mengine tena ! "

" Haya . Ila mwanzo nitahitaji kujimwagia maji ,' na pale pale akaikata ile simu .

Daktari Tabibu aliingia hamamuni huku kajifunga taulo kiunoni tayari kuoga . Aliyafungulia maji lakini ule mfereji uligoma kutapika maji . Ulikuwa umekauka kabisa . Daktari Tabibu aliduwaa pale . Aliufunga ule mfereji kabla ya kuiaga bafu .

Maswali

(a) Eleza sababu nne zinazowafanya wataalamu kuhamia nchi za nje **.(alama 4)**

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[b] 'Hakuna masika yasiyokuwa na mbu" . Thibitisha kauli hii kwa kurejelea hali ya waliohamia ng'ambo **. [alama 3]**

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[c] Fafanua athari tatu zinazoikumba nchi ya msimulizi kutokana na uhamiaji wa wataalamu.

[alama 3]

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[d] Eleza mchango wa teknologia kwa kurejelea kifungu . **[alama 3]**

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……

……

[e] Eleza maana ya msamiati ufuatao kulingana na taarifa **.** **[alama 2]**

[I] kuyapa mji ----------

[ii] fukuto ----------

UFUPISHO (ALAMA 15)

Soma kifungu kifuatacho kasha ujibu maswali.

Kila msanii anacho kifaa chake ambacho anakitumia, ambacho kinakuwa alama ya usanii wake. Mchoraji anategemea sana kalamu au rangi zake na mchongaji anao ubao au mti wake.

Vivyo hivyo mwanafasihi naye anategemea lugha katika usanii wake. Matumizi ya lugha ni miongoni mwa mambo muhimu yanayotofautisha kazi ya fasihi na kazi isiyo ya fasihi. Jinsi ambavyo mwandishi anavyoitumia lugha yake na kiwango cha usanii anachofuraia ndivyo alama muhimu inayomtofautisha na mwandishi mwingine wa fasihi.

Katika uhakiki wa kazi za fasihi za hivi karibuni, hasa katika Kiswahili, kumekuwa na msisitizo mkubwa katika maudhui ya kazi hizo au kwa lugha rahisi, ujumbe unaotolewa na mwandishi. Hivyo maswali yanayoulizwa ni kama kazi hii ina umuhimu gani katika jamii ya leo? Inajengaje tabia, mwenendo na mwelekeo wa jamii? Ina maadili gani?

Mara nyingi, wahakiki hawaulizi mwandishi alivyofaulu kisanaa isipokuwa kama jambo la ziada tu mwishoni uhakiki wa namna hii hasa umehusu kazi za fasihi zisizo za ushauri kwa sababu imekubalika kwa muda mrefu kuwa mshauri lazima aitawale lugha yake vizuri ndipo aweze kuleta ule mvuto maalum unaotakiwa na kufikia viwango vinavyokubalika katika fani hii.

Haiwezekani kutenganisha maudhui na usanii katika kazi yoyote ile ya fasihi ujumbe unaoletwa katika kazi ya fasihi unaweza kutolewa na mtu mwingine yeyote kwa njia nyingine. Ujumbe huo unaweza kutolewa kwa njia ya hotuba, vitabu au maongezi ya kawaida.

Katika isimu ya lugha , tunaposema ya kwamba mwanadamu anajua lugha yake, tuna maana kuwa "amemeza" mfumo wa lugha yake wa matamshi, muundo wa maneno, muundo wa sentensi na maana zinazokusudiwa. Ujuzi alio nao mwanadamu huyu ni sawa, na ujuzi walionao wanadamu wengine wa jamii yake wanaozungumza lugha moja. Hivyo tukisema kuwa mwanadamu aongee lugha hatuna maana tu ya kule kumeza mfumo wake wa lugha bali ni uwezo wake wa kuitumia katika mahusiano yake na wanajamii wengine. Katika lugha yoyote ile kuna mitindo mingi inayotumika kutegemea kile kinachozungumziwa.Hivyo, tunaweza kuwa na mtindo wa siasa, sheria dini na kadhalalika pia upo mtindo wa kawaida unaotumika.

Katika mawasiliano ya kila siku ya wanajamii moja Katika mtindo huu kuna matumizi ya aina mbalimbali kihusiana na nyanja tofauti za maisha. Matumizi haya yanaitwa rejesta kwa lugha ya kitaalam. Rejesta yoyote ile inategemea nani anazungumza nini na nani, wapi kuhusu nini na kwa sababu gani.

Mtu anayejua lugha yake vizuri tunategemea aweze kuitumia katika mitindo iliyobadilika na aweze kujua mazingira anayopaswa kutumia mtindo mmoja badala ya mwingine katika mahusiano ya kawaida, mtumiaji wa lugha anapaswa kujua ni rejesta gani anapaswa kutumia kila wakati. Mwandishi wa habari lazima awe "amefuzu" kuliko kuweka haya matumizi tofauti ya lugha.

Mwandishi huyu anatakiwa kuwa mtafiti ili ajue Yale matumizi ambayo yeye hana haja nayo katika mahusiano yake ya kawaida na huyo aweze kuchora jamii yake inayostahili katika kazi yake. Sababu kubwa ya kumtaka mwanafasihi kuyajua kinaganaga matumizi tofauti ni ule ukweli kuwa kazi ya fasihi haina mpaka na utumizi wa lugha.

Maswali.

(a) Eleza vipengele muhimu vya lugha katika uwasilishaji wa fasihi (maneno 70-80) **(al.8)**

MATAYARISHO

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(b) Fupisha aya tatu za mwisho(maneno 75-85) (**al.7)**

MATAYARISHO

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<u>MATUMIZI YA LUGHA</u> (al 40)

a. Andika tofauti moja kati ya sauti zifuatazo: **(al 2)**

i. /ny/ na /y/

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ii. /d/ na /t/

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iii. /mb/ na /nd/

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iv./s/ na /z/

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b. Onyesha muundo wa silabi katika maneno **yafuatayo** **(al 2)**

i. Mtu

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ii. Ngoma

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iii. Embe

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iv. Chai

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c. Tunga sentensi mbili kuonyesha matumizi mawili ya kiambishi **a** **(al 2)**

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d. Tumia neno **ngali** katika sentensi kuonyesha : **(al 3)**

i. Tendo halikutendeka na hakuna uwezekano

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ii. Kitenzi kishirikishi kikamilifu

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iii. Kitenzi kisaidizi

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e. Onyesha miundo miwili ya nomino katika ngeli ya LI-**YA** **(al 2)**

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f. Tunga sentensi katika wakati uliopita hali timilifu **(al 1)**

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g. Andika sentensi ifuatayo katika hali ya ukubwa **(al 2)**

Viti vingine huundwa kwa vijijiti vinene

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h. Akifisha sentensi ifuatayo **(al 3)**

halima aliamka akiwa na joto jingi mwilini Pamela nenda busia ukamununulie dawa alimwambia

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i. Kando na kuonyesha urejeshi katika sentensi , eleza matumizi mengine matatu ya kiambishi **ji** **(al 3)**

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j. Andika sentensi ifuatayo katika usemi wa taarifa **(al 2)**

"Tutakapofuata maagizo ya wizara, janga la korona litasahaulika kabla ya mwaka ujao." Waziri wa afya aliahidi.

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k. Tunga sentensi zifuatazo: **(al 2)**

i. Amrishi

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ii. Changamano

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l. Tunga sentensi iliyo na kirai kihusishi kisha ukibadilishe kiwe kielezi kimoja **(al 2)**

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m. Ainisha vishazi katika sentensi ifuatayo **(al 2)**

Iwapo utapita mtihani utaenda chuo kikuu.

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n. Bainisha shamirisho na chagizo katika sentensi ifuatayo: **(al 3)**

Sabina alimnunulia Nyaboke nguo nzuri kwa senti zake.

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o. Andika sentensi ifuatayo upya kulingana na maagizo **(al 1)**

Kasisi alikariri sala ya Bwana baada ya waumini.

Anza kwa:

Waumini

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p. Changanua sentensi ifuatayo kwa kielelezo cha visaduku **(al 4)**

Halima atamtembelea shangazi Nakuru kisha ampelekee mama mahindi.

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q. Andika sentensi ifuatayo upya ukitumia kinyume cha sehemu iliyopigiwa mstari **:** **(al 1)**

Wanajeshi watapiga kambi juma lijalo.

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r. Andika sentensi yenye muundo ufuatayo **(al 2)**

KN(V+N+V)+KT(Ts+T+E)

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s. Bainisha maana mbili zinazojitokeza katika sentensi ifuatayo: **(al 2)**

Mwalimu alimsomesha mwanafunzi

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t. Chakula ni kwa mlo, barabara ni kwa…….na afya ni kwa……**……(al 2)**

ISIMUJAMII (al 10)

Mirima : Sasa Mangwasha

Mangwasha : Poa

Mirima : Kesho utakuja kunitembelea ?

Mangwasha : Naam ! Nitajaribu

Mirima : Wewe acha. Kujaribu kwako kila mara. Jana uliniambia hivyo tena. Utasema ukweli when?

Mangwasha: Usoichukulie vibaya my dear , ninajiandaa kwa birthday ya bro wangu.

Mirima: Ukikosa hata mimi…

Mangwasha: La! La si hivyo buddy…

Maswali

a. Haya ni mazungumzo ya aina gani ? **(al 2)**

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b. Tambua sifa za lugha hii kama zinavyojitokeza katika mazungumzo haya **(al 4)**

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c. Taja sifa zingine zinazohusishwa na sajili **(al 4)**

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KCSE 2024 MOKASA JOINT MOCK

SERIES 2

102/3

KISWAHILI

KARATASI YA 3 (FASIHI)

MUDA: SAA 2½

JINA……

SHULE…… SAHIHI……

NAMBARI YA USAJILI…… MKONDO……

Cheti cha Kuhitimu Kisomo cha Sekondari (KCSE)

Maagizo

a) *Jibu maswali manne pekee.*

b) *Swali la kwanza ni la lazima.*

c) *Maswali hayo mengine matatu yachanguliwe kutoka sehemu nne zilizobaki, yaani Riwaya, Hadithi Fupi, Tamthilia na Ushairi.*

d) *Usijibu maswali mawili kutoka sehemu moja.*

e) *Majibu yote lazima yaandikwe kwa lugha ya kiswahili.*

f) *Karatasi hii ina kurasa nne zilizopigwa chapa.*

Kwa matumizi ya mtahini pekee.

Swali	Upeo	Alama
1	20	
2	20	
3	20	
4	20	
Jumla	80	

SEHEMU YA A: FASIHI SIMULIZI
(Swali la lazima)

1. Soma kifungu kifuatacho kisha ujibu maswali.

"Kwa taadhima na ruhusa yenu, wapenzi, ninasema hivi: kwamba thawabu ya mja ni sawasawa na jitihada na suna zake. Siku nyingi tumewinda. Na silalamiki kwa kuwa adinasi kwa kawaida huwinda mengi katika sayari hii kwa kadri ya haja na hekima yake. Hana budi, hata hivyo kutumia ubongo wake kwa namna ambavyo Jaliya alivyomkirimu. Naam! Kwa maana wenye hekima hunaswa kwenye hila zao. Nawaomba kwa hivyo mmakinike, pasiwe kwenu faraka bali mhitimu katika nia moja na ushauri mmoja katika ombi letu. Asenteni!"

Maswali

(a) Tambua kipera hiki. Fafanua jibu lako. **(alama 2)**

(b) Fafanua muundo wa kipera ulichosoma. **(alama 3)**

(c) Eleza njia zozote mbili ambazo mtafiti wa kipera hiki anaweza kutumia kukusanya data kukihusu. **(alama 4)**

(d) Taja changamoto moja kwa kila mbinu za ukusanyaji data ulizotaja katika swali la (c) **(al 2)**

(e) Eleza nafasi ya fanani katika fasihi simulizi. **(alama 4)**

(f) Eleza sifa nne za mwasilishaji bora wa fasihi simulizi. **(alama 5)**

SEHEMU YA B: BEEMBEA YA MAISHA
Jibu swali la 2 au la 3

2. "Lakini nilivyosema, Mungu hamuwachi mja wake……."

(a) Eleza muktadha wa dondoo hili. **(alama 4)**

(b) Tambua sifa tatu za msemewa. **(alama 4)**

(c) Eleza umuhimu wa msemaji wa maneno haya katika kukuza tamthilia. **(alama 6)**

(d) Kwa kurejelea tamthilia nzima, eleza ukweli wa kauli, "Mungu hamwachi mja wake". **(alama 6)**

AU

3. "Wenyewe tumewafanya hivyo. <u>Mila na desturi zetu zimewajenga hivyo walivyo na sisi hivi tulivyo.</u>"

(a) Jadili jinsi maneno yaliyopigiwa mstari yanavyojitokeza katika tamthilia hii. **(alama 10)**

(b) Taja hatua wanazochukua wahusika katika tamthilia ya Bembea ya Maisha kujikomboa kutokana na kauli hii uliyosoma. **(alama 6)**

(c) Eleza nafasi ya msemaji katika kuendeleza ploti ya tamthilia husika. **(alama 4)**

SEHEMU YA C: NGUU ZA JADI

Jibu swali la 4 au 5

4. **"**Naweza kuoa wakati wowote na idadi yoyote ya wanawake."

(a)Weka dondoo hili katika **muktadha** wake. **(alama 4)**

(b)Tambua **maudhui** katika dondoo hili. **(alama 4)**

(c)Kwa kutoa mifano **kumi na miwili** mwafaka kutoka riwayani,onyesha jinsi maudhui uliyotambua hapo juu(4b) yalivyoshughulikiwa na mwandishi**.** **(alama 12)**

AU

5. **Tamaa na ubinafsi** ni baadhi ya masuala makuu yaliyoshughulikiwa kwa mapana na marefu na *Clara Momanyi* katika riwaya yake ya *Nguu za Jadi*. Kwa kutoa mifano mwafaka riwayani thibitisha ukweli wa kauli hii. **(alama 20)**

SEHEMU D: MAPAMBAZUKO YA MACHWEO

6. "Nisikuone tena ofisini mwangu, mwanamke wewe. Kuja kuniaibisha, wapinzani wangu waseme nimeshindwa kumdhibiti mke wangu sembuse kaunti nzima!"

(a) Bainisha muktadha wa dondoo hili **(alama 4)**

(b) Eleza toni katika muktadha huu. **(alama 2)**

(c) Asasi ya ndoa imo hatarini. Jadiili ukweli wa kauli hii kwa kurejelea mandhari ya dondoo hili. (alama 4)

(d) Jadili changamoto zinazowakumba vijana katika hadithi zifuatazo;

(i) Mapambazuko ya Machweo. **(alama 5)**

(ii) Sabina **(alama 5)**

SEHEMU YA E: USHAIRI

Soma shairi hili kisha ujibu maswali yanayofuata

SHAIRI A

UCHAFUZI WA MAZINGIRA

Haya yetu mazingira, tusipochunga taisha,
Dunia hii duara, yatupa yetu maisha,
Tutakuwa na vipara, sisi sote tutakwisha,
Tuyachunge mazingira, la sivyo tuangamie.

Mto wetu Nairobi, uti wetu maishani,
Wasaidia mabibi, mabwana huko nyumbani,
Mto huu ni muhibi, mamboye zingatieni,
Tuyachunge mazingira, la sivyo tuangamie.

Elenino ikinyesha, tuonyeshe werevu,
Majiye nitategeza, tusijekaa kivivu,
La tutajifedhehesha, tukiwa nao uwivu,
Tuyachunge mazinira, la sivyo tuangamie.

Mbuga zetu ni muhimu, Nairobi, Tsavo zote,
Masai Mara tukima, kuimarisha uchumi wetu,
Amboseli ilazima, watalii waje kwetu,
Tuyachunge mazingira, la sivyo tuangamie

Asojali la mkuu, tavunjika guu lake,
Maisha yetu makuu, kitafika kikomoche,
Milima yote mikuu, tusije badilika,
Tuyachunge mazingira, la sivyo tuangamie.

Wangari twamkumbuka, alituzwa Nobeli,
Kenya yetu litukuka, ramani ikawa mali,
Bunge litahesabika, vijijini ghafimali,
Tuyachunge mazingira, la sivyo tuangamie.

MASWALI

(a) Eleza ujumbe wa shairi. **(alama 2)**

(b) Tambua bahari nne za ushairi. **(alama 4)**

(c) Eleza uhuru wa kishairi ulivyodhihirika katika shairi. **(alama 4)**

(d) Eleza umbo la shairi hili. **(alama 4)**

(e) Andika ubeti wa tano katika lugha nathari. **(alama 4)**

(f) Eleza maana ya maneno yafuatayo kama yalivyotumika katika shairi. **(alama 2)**

(i) Tutajifedhehesha

(ii) kikomoche

SHAIRI B

Soma shairi hili kisha ujibu maswali yanayofuata

Binadamu hatosheki, ni kiumbe chenye zani, kweli mja hapendeki
Kwa kweli haaminiki, hila ameficha ndani, la wazi ni unafiki
Ukweliwe haafiki, njama zake zi moyoni, usimwone ni rafiki
Mtu kuwa na tamaa, akitaka kiso chake, ni hatari kama nyoka

Wengine watakuuwa, wakiona una pesa, hata zikiwa kidogo
Hizi kwao ni maua, hupupiwa zikatesa, wakazifuata nyago
Hadi kwenye wako ua, pasipo hata kupesa, wala kukupa kisogo
Mtu kuwa na tamaa, akitaka kiso chake, ni hatari kama nyoka

Pindi kinunua kitu, hafurahi shaitani, bali tajawa chukizo
Mtu kiwa mtukutu, tanuna mtimani, kwalo lako tekelezo
Tamko lake "subutu!", kuondoa tumaini, na kukuulia wazo
Mtu kuwa na tamaa, akitaka kiso chake, ni hatari kama nyoka

Aliye na taraghani, taabu kuishi naye, kazi yake kujidai
Takusema faraghani, asosema kiwa naye, kupendeza maadui
Hana faida nyumbani, ni mtu akuchimbaye, mradi usitumai
Mtu kuwa na tamaa, akitaka kiso chake, ni hatari kama nyoka

Kwa hakika ni balaa, kumkirimu mchawi, aliyejaa uchoyo
Bahati ina hadaa, kukupa alo sadawi, aibatili rohoyo
Mipangoyo kwake jaa, na nia ya ustawi, huwiza kuvunja kaniyo
Mtu kuwa na tamaa, akitaka kiso chake, ni hatari kama nyoka

Ninacho changu kilio, ninalia sanasana, kinyesi nimetupiwa
Ningetoa azimio, lakini uwezo sina, kwa mazito kuambiwa
Ama nitimue mbio, fuadini ninanena, akilini nazuiwa
Mtu kuwa na tamaa, akitaka kiso chake, ni hatari kama nyoka.

MASWALI

(a) Lipe shairi anwani mwafaka **(alama 1)**

(b) Fafanua mambo manne ambayo nafsineni analalamikia **(alama 4)**

(c) Bainisha tamathali mbili za usemi zilizotumika katika shairi hili. **(alama 2)**

(d) Tambua aina mbili za urudiaji zilizotumika katika shairi **(alama 2)**

(e) Ukitolea mifano eleza jinsi mtunzi alivyotimiza arudhi katika shairi **(alama 4)**

(f) Taja kwa kutolea mifano idhini zozote mbili za kishairi zilizotumika katika shairi **(alama 2)**

(g) Tambua nafsineni katika shairi hili **(alama 1)**

(h) Andika ubeti wa nne katika lugha nathari. **(alama 4)**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

313/1

CHRISTIAN RELIGIOUS EDUCATION

PAPER 1

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

- *This paper consists of **SIX** questions*
- *Answer **any** five questions in the answer booklet provided*
- *Each question carried 20 marks*

FOR EXAMINER'S USE ONLY

Question	1	2	3	4	5	6	Candidate's Total Score
Candidate's Score							

Answer any five questions in the answer sheets provided

1. a) Identify five law books in the Bible **(5 marks)**

b) From the story of the fall of human beings in Genesis Chapter 3, state the effects of sin. **(7 marks)**

c) Outline eight ways in which the Bible is misused in Kenya today. **(8 marks)**

2. a) Identify eight conditions that God gave to the Israelites during the renewal of the Sinai Covenant **(8 marks)**

b) Describe the call of Abraham **(6 marks)**

c) Explain the importance of Circumcision to Abraham and his descendants. **(6 marks)**

3. a) Identify the activities of King Jeroboam that contributed to religious schism between Judah and Israel. **(6 marks)**

b) Outline the failures of King Saul **(6 marks)**

c) State lessons Christians learn from the failures of King Saul. **(8 marks)**

4. a) Outline differences between Traditional African Prophets and the Old Testament Prophets. **(7 marks)**

b) Outline the social injustices condemned by Prophet Amos in Israel. **(7 marks)**

c) State ways in which God would punish Israel for her evil according to Prophet Amos. **(6 marks)**

5. a) Describe the political background to Nehemiah. **(5 marks)**

b) Identify problems experienced by Nehemiah during the rebuilding of the wall of Jerusalem. **(7 marks)**

c) State the leadership qualities demonstrated by Nehemiah. **(8 marks)**

6. a) Identify rituals performed after the death of a person in Traditional African Communities.

(6 marks)

b) List moral values promoted during funeral ceremonies in Traditional African Communities.

(7 marks)

c) Name seven places of worship in which sacrifices were carried out in Traditional African Communities. **(7 marks)**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

313/2

CHRISTIAN RELIGIOUS EDUCATION

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

- *This paper consists of **SIX** questions*
- *Answer **any** five questions in the answer booklet provided*
- *Each question carried 20 marks*

FOR EXAMINER'S USE ONLY

Question	1	2	3	4	5	6	Candidate's Total Score
Candidate's Score							

Answer any five questions in the answer sheets provided

1. a) Basing your answer on the infancy narratives, (Luke 1:5-56), describe what took place when Mary visited Elizabeth. **(7 marks)**

b) Explain what the magnificat reveals about the nature of God. **(6 marks)**

c) Give six ways in which a Christian couple should respond to the challenge of being childless **(7 marks)**

2. a) Describe the incident when Jesus was baptized in River Jordan by John the Baptist. **(7mks)**

b) What are the teachings of John the Baptist as the forerunner of Jesus Christ? **(8mks)**

c) Give five reasons why Christians undergo baptism today. **(5mks)**

3. a) Outline the events which took place on Mount Olives before the arrest of Jesus. **(7 marks)**

b) Identify the reasons that made Judas Iscariot to betray Jesus. **(6marks)**

c) Why is the death of Jesus important to Christians? **(7 marks)**

4. a) Describe the events that took place on the day of Pentecost (Acts 2:1- 41) **(8mks)**

b) Identify ways in which Christians can identify those who are led by the Holy Spirit among themselves. **(5mks)**

c) How are the gifts of the Holy Spirit manifested in the church today? **(7mks)**

5. a) Outline the importance of professional code of ethics. **(6 marks)**

b) Identify eight Christian teachings on work. (**8 marks)**

c) Identify six ways in which the church is helping to solve the issue of unemployment in Kenya today. **(6 marks)**

6. a) Explain ways in which science and technology has improved human life. **(8 marks)**

b) Give six reasons why Christians are opposed to euthanasia. **(6 marks)**

c) Identify ways through which Christians can help to control desertification. **(6 marks)**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

311/1

HISTORY AND GOVERNMENT

PAPER 1

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES.

i *Write your Name, Admission number and stream.*

ii *Answer ALL questions in the answer sheets provided.*

iii *Answer ALL questions in section A, Three questions in the section B and Two questions in section C.*

iv *Candidates should answer the questions in English.*

FOR EXAMINERS USE ONLY

SECTION	A		B				C		TOTAL
	1--17	18	19	20	21	22	23	24	
SCORE									

SECTION A-25 MARKS

Answer all questions from this section

1. State *two* disadvantages of relying on oral traditions as a source of History of Kenya.**(2 marks)**

2. Identify *one* theory that explains the origin of man. **(1 mark)**

3. Name *two* Bantu communities in Kenya whose ancestors settled in the Mount Elgon area before migrating to their present homeland. **(2 marks)**

4. Why did the Mijikenda live in kayas? **(1 mark)**

5. State *two* social functions of *Orkoiyot* among the Nandi during the pre-colonial period**.(2 mrks)**

6. Identify *two* factors that led to the spread of Islam along the Kenyan coast by 16th Century. **(2 marks)**

7. Give *one* economic responsibility of a Kenyan citizen. **(1 mark)**

8. What is the difference between a civil and criminal dispute? **(1 mark)**

9. State *two* recommendations of the Lyttleton constitution of 1954 **(2 marks)**

10. Identify *two* development rights of children. **(2 marks)**

11. Name the treaty, which marked the colonial spheres of influence in East Africa in 1886.**(1 mk)**

12. Give the *main* reason why the local government was established in Kenya during the colonial period. **(1 mark)**

13. State *two* ways through which the colonial land policies in Kenya undermined African farming. **(2 marks)**

14. Who declared the state of Emergency in Kenya in 1952? **(1 mark)**

15. Give *two* special courts of Kenya. **(2 marks)**

16. Give the *main* role of opposition parties in Kenya. **(1 mark)**

17. Which body is mandated to collect taxes for the national government? **(1 mark)**

SECTION B (45 MARKS)

Answer any three questions

18. a**)** State *three* economic activities of the Borana during pre-colonial period **(3 marks)**

b) Describe the social organization of the Maasai during the pre-colonial period. **(12 marks)**

19. a)Give *five* reasons for the Portuguese success in the conquest of the Kenyan Coast**.(5 marks)**

b) Explain *five* factors that contributed to the spread of Christianity up to the 19th Century. **(10 marks)**

20. a) State *three* methods used by the British to establish colonial rule in Kenya **(3 marks)**

b) Explain *six* problems experienced by the white settlers in Kenya. **(12 marks)**

21. a) State *five* reasons why Africans opposed to British colonial rule between 1920 – 1939 **(5 marks)**

b) Discuss *five* factors that have facilitated industrialization in Kenya since independence. **(10 marks)**

SECTION C (30 MARKS)

Answer any two questions from this section

22. a)State *three* circumstances in which one's right to life may be taken away in Kenya**.(3 marks)**

b) Discuss *six* rights guaranteed to arrested persons in Kenya according to the bill of rights. **(12 marks)**

23. a) Outline *five* features of the new constitution of Kenya (2010) **(5 marks)**

b) Explain *five* ways how the concept of the independence of the Judiciary applies in Kenya. **(10 marks)**

24. a) State *five* objectives of devolution of government in Kenya. **(5 marks)**

b) Discuss *five* ways how both levels of government in Kenya's devolution system relate. **(10 marks)**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

311/2

HISTORY AND GOVERNMENT

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** the questions in section **A**, **THREE** questions from section **B** and **TWO** questions from section **C**.*
- *Answers to all questions **MUST** be written in the answer booklet provided.*

FOR OFFICIAL USE, ONLY

SECTION	A	B				C			TOTAL
QUESTION	1-17	18	19	20	21	22	23	24	
TOTAL SCORE									

SECTION A: (25 MARKS)

Answer all questions in this section.

1. State ***two*** ways in which archaeologists obtain information on History & Government.**(2 marks)**
2. Identify ***one*** disadvantage of hunting as an economic activity. **(1 mark)**
3. Give ***two*** methods of irrigation used in ancient Egypt during early agriculture. **(2 marks)**
4. Identify the ***main*** disadvantage of barter trade in pre-colonial period. **(1 mark)**
5. Outline ***two*** disadvantages of motor-vehicle transport. **(2 marks)**
6. Identify ***two*** forms of print media. **(2 marks)**
7. List the ***main*** source of energy during industrial revolution in Britain. **(1 mark)**
8. Give ***two*** factors that led to the growth of ancient Kilwa. **(2 marks)**
9. Name the ***main*** symbol of unity of the Asante Kingdom in pre-colonial period. **(1 mark)**
10. Name ***one*** English – speaking nation in West Africa **(1 mark)**
11. Identify the ***main*** method used by French in administration in Senegal. **(1 mark)**
12. Define the term 'Apartheid Policy' as used in South Africa during colonial period**.(1 mark)**
13. Name ***two*** members of central powers during the First World War. **(2 marks)**
14. Identify ***two*** types of weapons used during the Cold War. **(2 marks)**
15. Name ***one*** financial institution established by African Union. (AU) **(1 mark)**
16. Identify ***one*** political party that merged to form Chama Cha Mapinduzi in Tanzania**.(1 mark)**
17. Give ***two*** houses of Parliament in India. **(2 marks)**

SECTION B: (45 MARKS)

Answer any three questions from this section.

18. (a)Highlight ***five*** benefits of an upright posture to early man. **(5 marks)**

    (b) Describe ***five*** factors for the development of Trans-Saharan Trade. **(10 marks)**

19. (a) State ***three*** uses of Gold in ancient Africa. **(3 marks)**

    (b) Explain ***six*** results of scientific inventions in medicine. **(12 marks)**

20. (a)Idenfity ***five*** reforms introduced by the Germans after Majimaji rebellion of 1905**(5 marks)**

    (b) Explain ***five*** reasons why indirect rule failed in Southern Nigeria? **(10 marks)**

21. (a) Give ***three*** principles of the Arusha declaration in Tanzania. **(3 marks)**

(b) Explain ***six*** political challenges that have faced Congo since independence. **(12 marks)**

SECTION C: (30 MARKS)

Answer any two questions from this section.

22. (a) State ***three*** functions of the 'Lukiiko' in Buganda during the pre-colonial period.(**3 marks)**

(b) Explain the political organization of the Asante Empire in pre-colonial Africa. **(12 marks)**

23. (a) State ***five*** differences between OAU and African Union. **(5 marks)**

(b) Discuss ***five*** achievements of the Economic community of West African States (ECOWAS) **(10 marks)**

24. (a) State ***three*** functions of the state governments in USA. **(3 marks)**

(b) Explain ***six*** functions of monarch in Britain. **(12 marks)**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

312/1

GEOGRAPHY

PAPER 1

TIME: 2¾ 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) *This paper has **two** sections: **A** and **B***

(c) *Answer **all** the questions in section **A***

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

(e) *All answers must be written in the answer sheets provided.*

FOR EXAMINER'S USE ONLY

SECTION	QUESTION	MAX SCORE	SCORE
A	1 – 5	25	
B	6	25	
		25	
		25	
TOTAL SCORE			

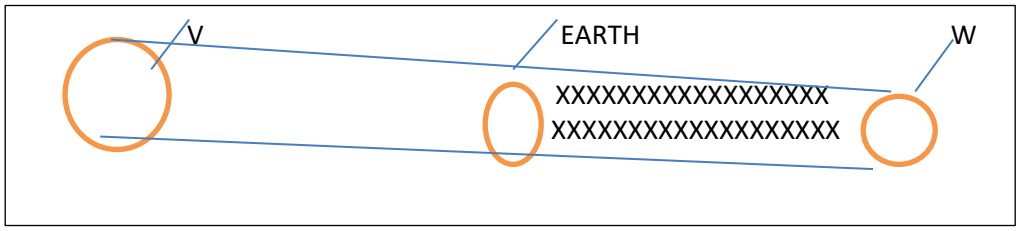
SECTION A.

Answer all the questions in this section

1. a) What is the relationship between Geography and Mathematics. **(2mks)**

b) State four reasons why it is important to study Geography. **(4mks)**

2. a) The diagram below shows an eclipse. Name the features marked V and W**.** **(2mks)**



b) State four proofs that the shape of the earth is spherical. **(4mks)**

3. a) Name two forms of precipitation that commonly occur on Kenya highlands**.** **(2mks)**

b) What is a Stevenson screen? **(2mks)**

4. a) Give four proofs that support the theory of continental drift. **(4mks)**

5. a) State the two causes of vertical movement of the ocean water. **(2mks)**

b) List three types of ocean tides **(3mks)**

SECTION B

Answer Question 6 And Any Other Two Questions From This Section.

6. (a) Study the map of Kisumu East 1:50,000 (sheet 116/2) provided and answer the following questions.

i. What type of map is Kisumu East map extract? **(1mark)**

ii. Give two scales that have been used in the map extract. **(2marks)**

iii. What is the bearing of the trigonometrical station at grid square 0383 from the Air Photo Principal Point at grid square 0281? **(2marks)**

(b). i. Measure the length of the All Weather Road Bound Surface B2/1 from the junction at Grid square 9793 to the western edge of the map extract. Give your answer in kilometer. (**2mks)**

ii. What is the altitude of the highest point in the area covered by the map? **(2marks)**

(c). Draw a rectangle measuring 16cm by 10cm to represent the area enclosed by Eastings 02 and 10 and Northing 90 and 00. **(1mark)**

On the rectangle, mark and name the following. **(4marks)**

- Nyando escarpment.
- All Weather Road Bound Surface C543/1
- Prison
- Agricultural Sugar Research Station.

(d). i. Describe the drainage of the area covered by the map. **(5marks)**

ii. Citing evidence from the map, identify three social services offered in Kisumu Municipality. **6marks)**

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

ii) Describe the following characteristics of minerals.

a) Lustre **(2mks)**

b) Colour **(2mks)**

c) Density **(2mks)**

b) i) Name two examples of extrusive igneous rocks. **(2mks)**

ii) Describe three ways in which sedimentary rocks are formed. **(6mks)**

c) Explain the significance of rocks to the economy of Kenya under the following:

i) Tourism **(2mks)**

ii) Energy **(2mks)**

iii) Water **(2mks)**

d) For each of the following sedimentary rocks, name the resultant rock that forms after metamorphism. **(3mks)**

i) Sandstone-

ii) Limestone

iii) Clay

8. a) i) Apart from Inter Tropical Convergence Zone (ITCZ), list four physical factors that influence climate. **(4mks)**

ii) Give four characteristics of the Inter-Tropical Convergence Zone (ITCZ) **(4mks)**

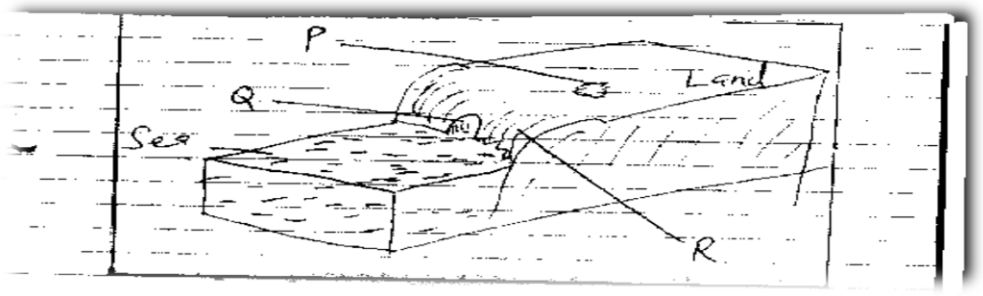
b) i) Name the three equatorial climatic regions of Kenya**.** **(3mks)**

ii) Describe the characteristics of Tundra climate**.** **(6mks)**

c) Explain four human causes of desertification. **(8mks)**

9. a) The diagram below represents some coastal features.

i) Name the features marked P, Q and R **(3mks)**



ii) State three conditions necessary for the formation of a beach. **(3mks)**

b) i) Apart from Bird's foot delta, name two other types of coastal deltas**.** **(2mks)**

ii) Draw a diagram to show a Bird's foot delta. **(3mks)**

iii) Describe how a Bird's foot delta is formed**.** **(4mks)**

c) i) Differentiate between a barrier reef and a fringing reef**.** **(2mks)**

ii) Explain four factors that influence the development of coasts **(8mks)**

10. a) i) What is an ice sheet**?** **(2mks)**

ii) Give two reasons why there are no ice sheets in Kenya. **(2mks)**

iii) Explain three factors that influence the movement of ice from the place of accumulation. **(6mks)**

b) Describe how an Arete is formed**.** **(4mks)**

c) i) Name three types of Moraine. **(3mks)**

ii) Explain four positive effects of glaciations in lowland areas. **(8mks)**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

312/2

GEOGRAPHY

PAPER 2

TIME: 2¾ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES.

- *This paper has **two** sections: **A** and **B.***
- *Answer **all** questions in **section A.***
- *Answer question **6** (compulsory) and any other **two** questions from **section B.***

FOR EXAMINERS USE ONLY.

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1-5	25	
B	6		
	7		
	8		
	9		
	10		
TOTAL		100	

SECTION A

Answer **ALL** questions in section **A**.

1. (a) State **two** factors that determine the mode of occurrence of minerals. **(2mks)**

(b) Give **three** ways in which mining causes land derelictions. **(3mks)**

2. (a) State **two** reasons why marine fisheries in Kenya are undeveloped **(2mks)**

(b) State **three** ways through which fish farming contributes to the economy of Kenya **(3mks)**

3. (a) State **three** ways in which the government policy influences location of industries in Kenya **(3mks)**

(b)Give **two** reasons that led to the growth of steel industry in the Ruhr region of Germany **(2mks)**

4. (a) Give **two** trading blocks in Africa **(2mks)**

(b) Identify **three** political problems facing regional trading blocks in Africa **(3mks)**

5. (a) State **two** ways in which communication contributes to economic development in Kenya **(2mks)**

(b) Highlight **three** problems facing railway transport in Africa **(3mks)**

SECTION B

Answer question 6 (compulsory) and any other two questions from this section

6. Use the table below to answer the following questions.

Kenya's agricultural production in 000 tonnes between 2014 -2017

Items/year	2014	2015	2016	2017
Horticulture	57,965	49,352	40,170	68,123
Tea	55,383	64,684	87,960	10,045
Coffee	6,859	9,563	15,449	17,826
Dairy products	8,368	11,496	11,346	15,548

a) Apart from comparative line graph, name four other methods that can be used to represent thee above data. **(4mks)**

b) (i) Using a vertical scale of 1cm represents 20,000 tons, draw a comparative line graph to represent the above data. **(8mks)**

(ii) State three advantages of using comparative line graph to represent statistical data. **(3mks)**

(iii) Give reasons that may have led to the low production between 2016-2017 **(6mks)**

c) Give four physical conditions that favor dairy farming in Kenya **(4mks)**

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

(ii) Apart from tropical hardwood forests, name two other types of natural forests **(2mks)**

(iii) State the problems experienced in exploitation of tropical hardwood forests **(3mks)**

b) List five characteristics of planted forests in Kenya **(5mks)**

c) Explain three factors that favor forestry in Canada **(6mks)**

d) Explain five measures that the government has taken to conserve and manage forests in Kenya **(10mks)**

8. a) Apart from irrigation give four methods of land reclamation in Kenya **(4mks)**

b) Explain four physical factors which influenced the location of Mwea irrigation scheme **(8mks)**

c) (i) Name three crops grown in polders in Netherlands **(3mks)**

(ii) Describe the stages of reclamation of land from sea in the Netherlands **(6mks)**

d) State four benefits of land reclamation in the Netherlands **(4mks)**

9. a)Differentiate between a national park and a game reserve **(2mks)**

b) (i) State **four** reasons for establishing national parks in Kenya **(4mks)**

(ii) Identify **two** examples of game sanctuaries in Kenya **(2mks)**

c) (i) Define domestic **tourism** **(2mks)**

(ii) State **four** factors that hinder domestic tourism in Kenya **(4mks)**

(iii) State **three** problems associated with tourism in Kenya **(3mks)**

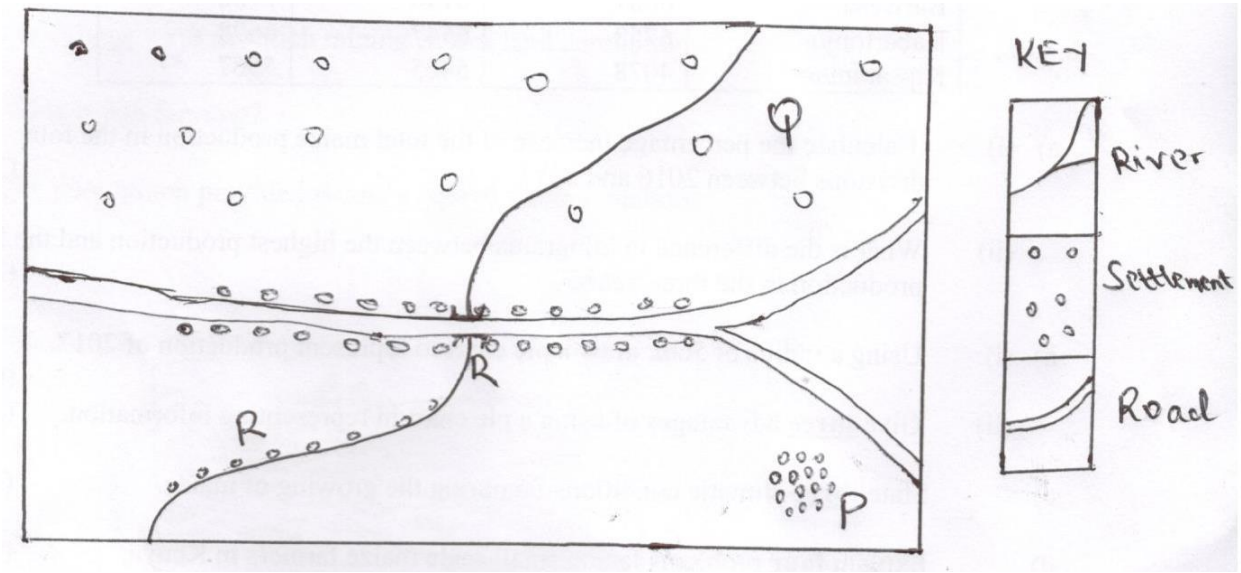
d) Explain **four** factors that make Switzerland receive more tourists than Kenya . **(8mks)**

10. a)Define the following terms

(i) Urban sprawl **(2mks)**

(ii) Conurbation **(2mks)**

b) Use the sketch map below to answer Questions



(i) Name the settlement pattern marked P, Q and R **(3mks)**

(ii) Explain **four** factors that favour the development of the settlement pattern marked R **(8mks)**

c) State factors which led to the growth of Eldoret town as an agricultural center. **(4mks)**

d) State the differences in functions between the cities of New York and Nairobi. **(6mks)**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

121/1

MATHEMATICS

PAPER 1

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

Instructions to candidates.

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

b) *Sign and write the date of the examination in the spaces provided above*

c) *This paper consists of two sections: Section I and Section II.*

d) *Answer all the questions in Section I and only five questions from Section II*

e) *Show all the steps in your calculations, giving your answer 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 1 (50 MARKS)

Answer all questions in the spaces provided.

1. A sum of money is divided between three men x, y and z in the ratio 5:3:1. If y has Shs. 700/= more than z, calculate how much x has. **(3 marks)**

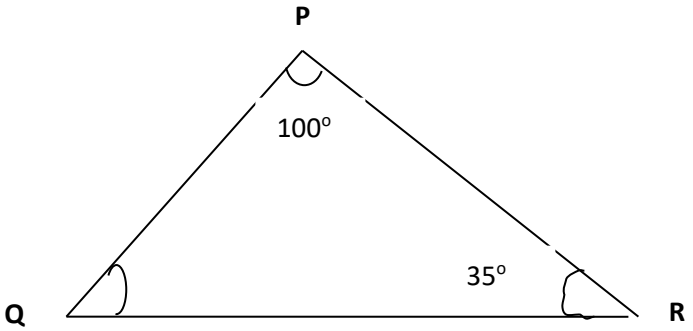
2. Simplify the expression $\frac{12x^2 + ax - 6ax^2}{9x^2 - 4a^2}$ **(3 marks)**

3. Find the integral values of x of which **(3 marks)**

$5 \leq 3x + 2$

$3x - 14 \leq -2$

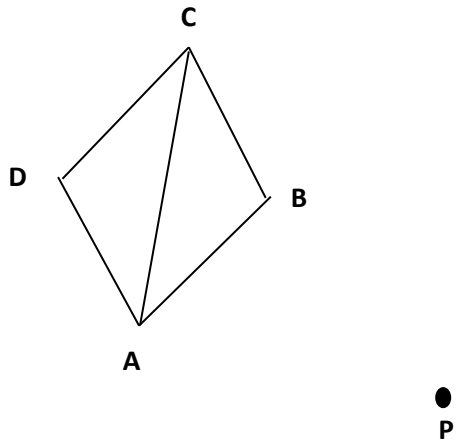
4. The figure below shows triangle PQR in which PQ = 7cm, angle QPR = 100o and angle PRQ = 35o. Calculate to 2 decimal places the length of PR hence the area of triangle PQR.



5. Evaluate without using a calculator **(3 marks)**

$$\frac{23.4-2(5.2+5.3)}{3.2\ x\ 1.2}$$

6. The figure below represents a kite ABCD. Use a pair of compasses and ruler only to rotate it through -60^{o} about point P. **(2 marks)**



7. Find the inverse of the matrix $\begin{pmatrix} 1 & 1 \\ 3 & 1 \end{pmatrix}$ hence determine the point of intersection of the lines.

$y + x = 7$

$3x + y = 15$ **(4 marks)**

8. A trader had a bag of rice, when he packed the rice in 6kg packets, he had 1 kg left over, when he packed the rice in 8kg packets, again he had 1kg left over. When he packed the rice in 9kg packets, he had 1kg left over. What is the smallest amount of rice that he must have had.

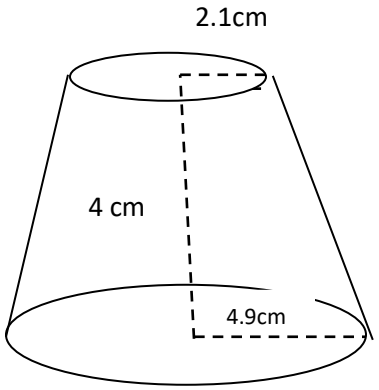
(3 marks)

9. A Histogram is drawn from the se of data given below. Complete the missing bars.(**3 marks)**

Marks	6 - 10	11 - 20	21 - 35	36 - 55	56 - 65
Frequency	8	14	18	24	10

10. Kinyua marked an article at Kshs. 1200 and sold it to a customer at a discount of 15%. Find the percentage profit he made if he had bought the article at Kshs. 900/=. **(3 marks)**

11. The diagram below represents a solid of a conical frustrum. (Use $\pi = \frac{22}{7}$)



Calculate the volume of the solid. **(4 marks)**

12. Given that a = $\begin{pmatrix} 2 \\ 8 \end{pmatrix}$, b = $\begin{matrix} -6 \\ 4 \end{matrix}$ and c = $\begin{matrix} -4 \\ 2 \end{matrix}$ and given that = =4a – 8b + 6c, find /P/**(3 marks)**

13. Evaluate using tables of reciprocals **(3 marks)**

$$\frac{5}{807} + \frac{1}{0.0591}$$

14. Solve for x in the following equation **(3 marks)**

$$\left[\frac{1}{4}\right]^{x-2} = 2^{X+2}$$

15. Each interior angle of a regular polygon is four times greater than the exterior angle. How many sides does this polygon have? **(3 marks)**

16. A boat is at point P, a distance of 100km from the bottom of a hill. The angle of elevation of the top of the hill is 30^o from P. The boat sails straight towards the hill to a point Q from where the angle of elevation to the top of the hill is now 60^o. Calculate the distance PQ **(3 marks)**

SECTION II (50 MARKS)

Answer only five question from this section in the spaces provided.

17. Given that a line L_1 passes through the points A(-1, 5) and B (3, -1), find

a) The equation of line L_1 in the form **y = mx + c** **(2 marks)**

b) The equation of a line $\mathbf{L_2}$, which is a perpendicular bisector of $\mathbf{L_1}$. Leave your answer in the form **ax + by = c** where **a, b, c** are integers **(3 marks)**

c) Given that another line $\mathbf{L_3}$ is parallel to $\mathbf{L_2}$ and passes through point (-3, -5) and intersects lines $\mathbf{L_1}$ at point P. Find the equation of $\mathbf{L_3}$ in the form **ax + by +c = 0** **(2 marks)**

d) The coordinates of the point of intersection of lines $\mathbf{L_1}$ and $\mathbf{L_3}$ **(3 marks)**

18. Four towns P, R, T and S are such that R is 70km directly to the north of P and T is on a bearing of 280^{o} from P at a distance of 75km. S is on a bearing of 320^{o} from T and a distance of 45km.

a) Using a scale of 1cm to represent 10km, make an accurate scale drawing to show the relative position of the towns. **(4 marks)**

b) Using your diagram above, find the distance in km of **(3 marks)**

(i) R from T

(ii) S from R

c) From your diagram, what is the compasses bearing of **(3 marks)**

(i) R from T

(ii) P from S

19. Nyaugenya bus leaves Port Victoria for Eldoret at 7:00 a.m. at an average speed of 80km/h. Climax bus leaves Eldoret towards Port Victoria at 7:30 a.m on the same day using the same route at an average speed of 60km/h. The distance from Eldoret to Port Victoria is 450km. After travelling for one hour and a half, climax bus developed a mechanical problem which took 45 minutes to repair before continuing at its speed in the same direction.

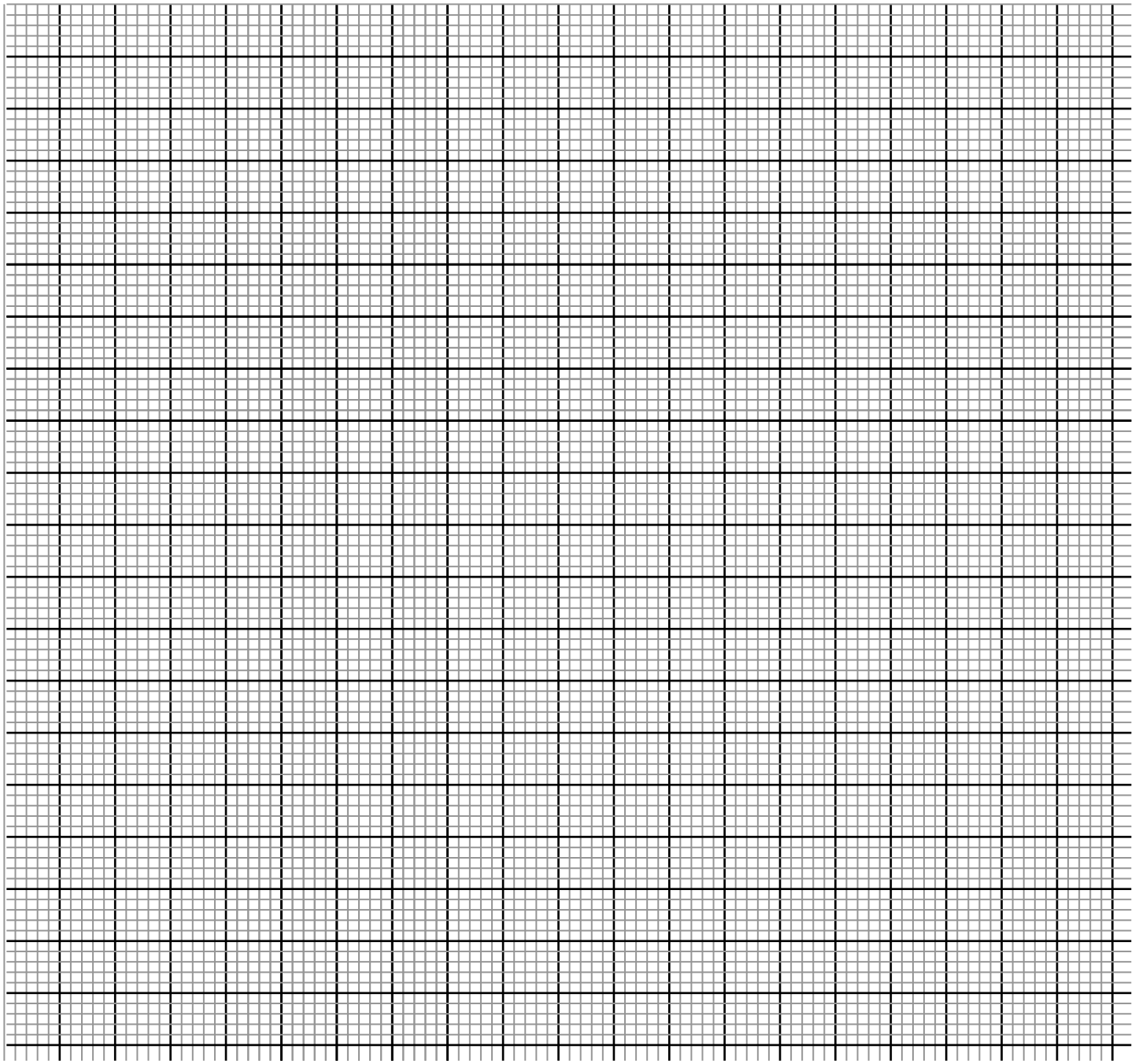
a) Determine the time when the two buses met. **(4 marks)**

b) Calculate the distance from Eldoret at the time of the two buses meeting. **(3 marks)**

c) For how long did the Nyaugenya bus stay in Eldoret before Climax bus arrived at Port Victoria.

(3 marks)

20. (a) On the grid provided draw triangle ABC with vertices A(0, -1), B(4, 3) and C(2, 2) **(1 mark)**



b) Draw triangle $A^1B^1C^1$, the image of ABC under a translation defined by the translation vector T $= \begin{pmatrix} 1 \\ -2 \end{pmatrix}$ Write down the coordinates $A^1B^1C^1$.
(3 marks)

c) $A^{11}B^{11}C^{11}$ is the image of $A^1B^1C^1$ under an enlargement, scale factor -2, centre (3, 1). On the same grid draw $A^{11}B^{11}C^{11}$ and write down its coordinates. **(4 marks)**

d) Draw $A^{111}B^{111}C^{111}$, the image of $A^{11}B^{11}C^1$,1 under reflection on the line x = 0 **(2 marks)**

21. The motion of a particle P moving along a straight line is described by the equation **$S = (8 + 10t)t - t^3$**

Calculate;

a) The distance when t = 3 sec. **(2 marks)**

b) The maximum velocity of the motion. **(4 marks)**

c) The acceleration of motion after 4 seconds. **(2 marks)**

d) The time at which the velocity is zero. **(2 marks)**

22. a) Use the trapezium rule with 8 ordinates to approximate the area under the curve $y = x^2 + x + 3$ and the x-axis between lines $x = -3$ and $x = 4$ **(5 marks)**

b) Use the mid-ordinate rule with 5 strips to calculate the area under the curve $y = 3x^2 + 8$ and bounded by lines $y = 0$, $x = 1$ and $x = 6$. **(5 marks)**

23. Three people; A, B and C work together to make a certain number of tins. It person C was to work alone he will take $4\frac{4}{9}$ hours to complete the job. If all working together they will take 1 hour 40 min. to complete the job. They all started working together however person B left after the first 40 minutes, while person C left 20 minutes later. Person A took a further 1hr 46mins. Calculate how long it would take if all the tins were made by;

a) Person A alone **(6 marks)**

b) Person B alone **(2 marks)**

c) Person A and C alone **(2 marks)**

24. In Busia County, a tailor bought a number of suits at a cost of Shs. 57,600/= from a wholesaler. Had he bought the same number of suits from a supermarket, it would have cost him Shs. 480/= less per unit. This would have enabled him to buy four extra suits for the same amount of money.

a) By letting the number of suits that the tailor bought to be n, write an expression in n for cost of a suit from;

(i) The wholesaler **(1 mark)**

(ii) The supermarket **(1 mark)**

b) Find the number of suits that the trailer bought **(4 marks)**

c) The tailor later sold each suit for Shs. 720/= more than he paid for it. Determine the percentage profit he made. **(4 marks)**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

121/2

MATHEMATICS

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

Instructions to candidates.

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

b) *Sign and write the date of the examination in the spaces provided above*

c) *This paper consists of two sections: Section I and Section II.*

d) *Answer all the questions in Section I and only five questions from Section II*

e) *Show all the steps in your calculations, giving your answer 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 1 (50 MARKS)

Answer all questions in the spaces provided.

1. Use **logarithms** to evaluate. **(4marks)**

$$\sqrt{\frac{(0.08294)^2 \times 39.24^3}{8458}}$$

2. Make **x** the subject of the formula. **(3 marks)**

$$\mathbf{y} = \sqrt{\frac{x}{x+h}}$$

3. Given that $\frac{8}{4-2\sqrt{3}} = a + b\sqrt{3}$ and that **a** and **b** are rational numbers, find the values of **a** and **b.**

(3 marks)

4. Given that **A** = $\begin{pmatrix} 1 & 5 \\ 3 & 7 \end{pmatrix}$ and **B** = $\begin{pmatrix} 7 & 3 \\ -4 & -2 \end{pmatrix}$ and that **C = AB**, find $\mathbf{C}^{-1}$ **(3 marks)**

5. (a) Expand and simplify $(1 + 2x)^7$ up to the term in x^3 **(2 marks)**

b) Use the expansion in (a) above to estimate the value of $(1.02)^7$ correct to four decimal places.

(2 marks)

6. Solve for **x** in: $\log(7x + 2) - \log(x - 1) = 0$ **(3 marks)**

7. Find the quartile deviation for the following set of data **(3 marks)**

16, 42, 41, 6, 20, 28, 19, 23, 15

8. The radius and height of a cylindrical tank rounded to 1cm are 105cm and 300cm respectively. Calculate the percentage error in its volume. (to 4 s.f) **(3 marks)**

9. Given that $25x^2 - 20x + k$ is a perfect square. Find the value of **k**. **(2 marks)**

10. Solve for **X** in the equation:

$2\ Sin^2x - 1 = Cos^2x + Sin\ x$, for $0^0 \leq x \leq 360^0$ **(3mks)**

11. **P** and **Q** are two points on the earth's surface. Their positions are P (60^0S, 30^0E) and Q (60^0S, 90^0 W).Find the distance between P and Q along the parallel of latitude in km (Take radius of earth = 6370 km and $\pi = \frac{22}{7}$) [to 1 decimal place**.)** **(3 marks)**

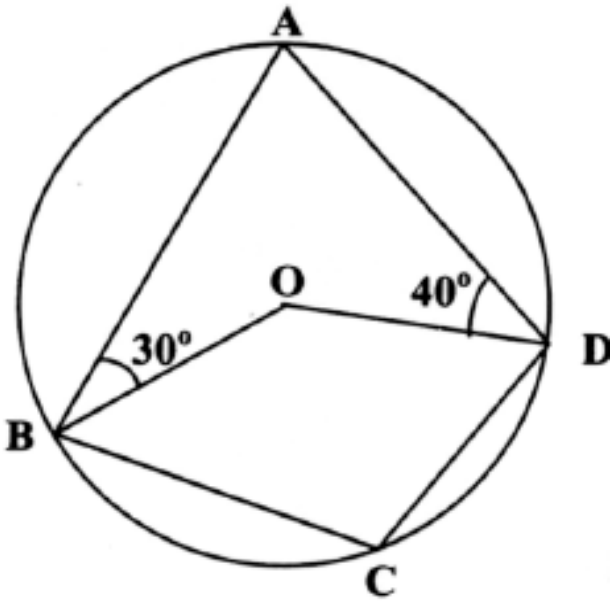
12. a) The sum of the fifth and sixth term of an AP is 30. If the third is 5, find the first term.

(2 marks)

b) The sum of the first 10 terms of the AP **(2 marks)**

13. 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)**

14. Obtain the Centre and radius of the circle represented by the equation.

$x^2 + y^2 - 10y + 16 = 0$ **(3 marks)**

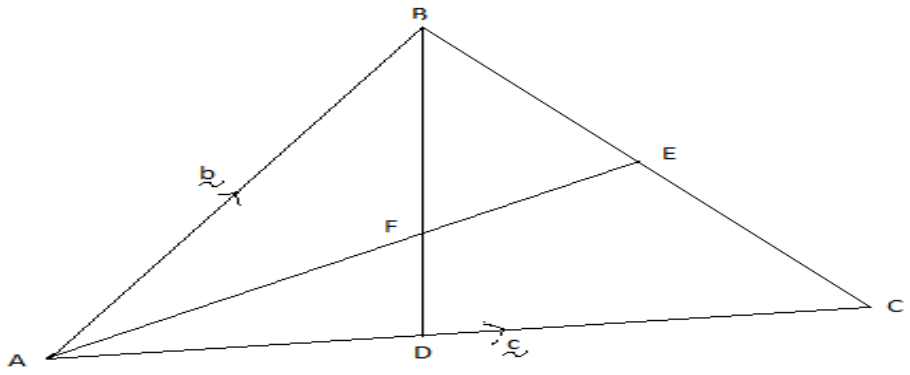
15. John bought **3** brands of tea **A, B** and **C**. The cost price of the three brands was sh.25, sh.30 and sh.45 per kilogram respectively. He mixed the three brands in the ratio 5:2:1 respectively. After selling the mixture he made a profit of 20%. How much profit did he make per kilogram of the mixture? **(4mks)**

16. Draw a line $DF = 4.6cm$.Construct the locus of point K above DF such that angle $DKF = 70^0$. **(3 marks)**

SECTION II (50 MARKS)

(Answer ONLY FIVE questions in the spaces provided)

17. In the figure below, E is the midpoint of BC. AD : DC = 3:2 and F is the meeting point of BD and AE.



(a) Express the following vectors in terms of ***b*** and ***c***

(i) $\overrightarrow{BD}$ **(2 marks)**

(ii) $\overrightarrow{AE}$ **(2 marks)**

(b) If **BF**= *t***BD** and **AF**=*n***AE**, find the value of ***t*** and ***n*** **(5 marks)**

(c) State the ratio in which F divides BD and AE **(1 mark)**

18. The probability that a boy goes to school by bus is $\frac{1}{3}$ and by matatu is $\frac{1}{2}$. If he uses a bus the probability that he is late to school is $\frac{1}{5}$ and if he uses a matatu the probability of being late is $\frac{3}{10}$. If he uses other means of transport, the probability of being late is $\frac{1}{20}$.

(a) Represent this information on a tree diagram. **(2 marks)**

(b) What is the probability that;

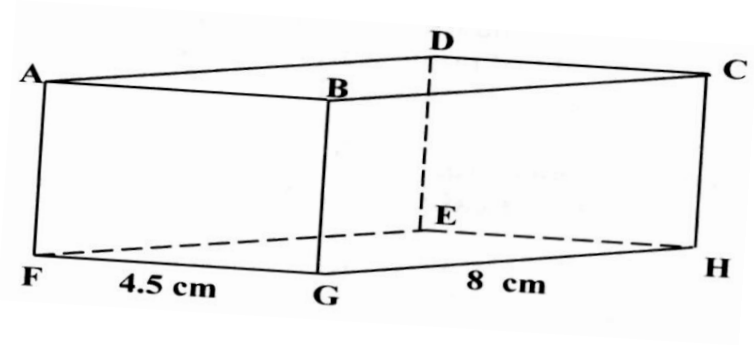
(i) He will be late to school **(2 marks)**

(ii) He will not be late to **school** **(2 marks)**

(iii) He will be late to school if he does not use a matatu**.** **(2 marks)**

(iv) He neither uses a bus nor matatu but arrives to school early. **(2 marks)**

19. The diagram below represents a cuboid ABCDEFGH in which FG= 4.5 cm, GH = 8cm and HC = 6 cm



Calculate:

(a) The length of FC **(2 mks)**

(b) (i) the size of the angle between the line FC and the plane FGHE **(2 mks)**

(ii) The size of the angle between the lines AB and FH **(2 mks)**

(iii) The size of the angle between the lines AC and GE **(2mks)**

(c) The size of the angle between the planes ABHE and the plane FGHE **(2 mks)**

20. The table below shows the income tax rates

Income per annum in K£	Rate in Sh per K£
1-1980	2
1981-3960	3
3961-5940	5
5941-7920	7
7921-9920	9
Over 9920	10

Juma is a salaried employee with a basic salary of Ksh. 15,710 per month and house allowance of sh1,350 monthly. He is also entitled to a monthly tax relief of Ksh1320.

Calculate:

(a) Juma's annual salary in K£. **(2 marks)**

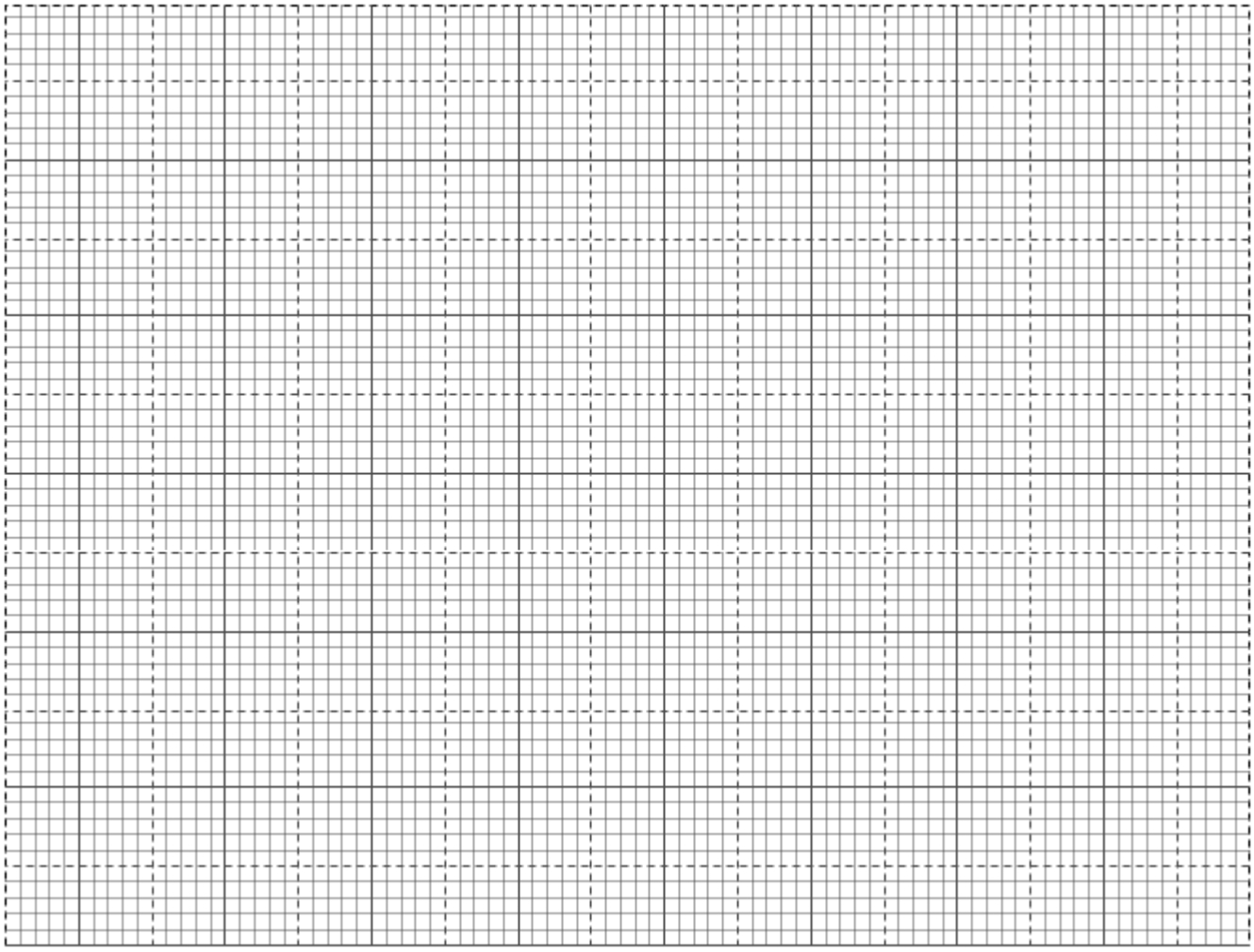
(b) The monthly tax paid by Juma in Ksh. **(6 marks)**

(c) Find his net pay per month in Ksh. **(2 marks)**

21. A transformation represented by the matrix $\begin{pmatrix} 2 & 1 \\ 1 & -2 \end{pmatrix}$ maps the points A(0, 0), B(2, 0), C(2, 3 and D(0, 3) onto $A^1B^1C^1D^1$ respectively.

a. Find the co-ordinates of $A^1B^1C^1D^1$**.** **(2 mks)**

b. Draw the quadrilateral ABCD and its image $A^1B^1C^1D^1$. **(2mks)**



c. Hence or otherwise, determine the area of $A^1B^1C^1D^1$. **(2mks)**

d. Another transformation represented by the matrix $\begin{pmatrix} 0 & -1 \\ -1 & 0 \end{pmatrix}$ maps $A^1B^1C^1D^1$ onto $A^{11}B^{11}C^{11}D^{11}$.Draw the image $A^{11}B^{11}C^{11}D^{11}$. **(2mks)**

e. Determine the single matrix, which maps $A^{11}B^{11}C^{11}D^{11}$ back to ABCD. **(2mks)**

22. A particle starts from rest at a point A and moves along a straight line coming to rest at another point B. During the motion, its velocity v(m/s) after time t (sec) is given by $v=9t^2-2t^3$.

Calculate:

a) The time taken for the particle to reach B. **(2 marks)**

b) The distance traveled during the first two seconds. **(3 marks)**

c) The time taken for the particle to attain its maximum velocity. **(3 marks)**

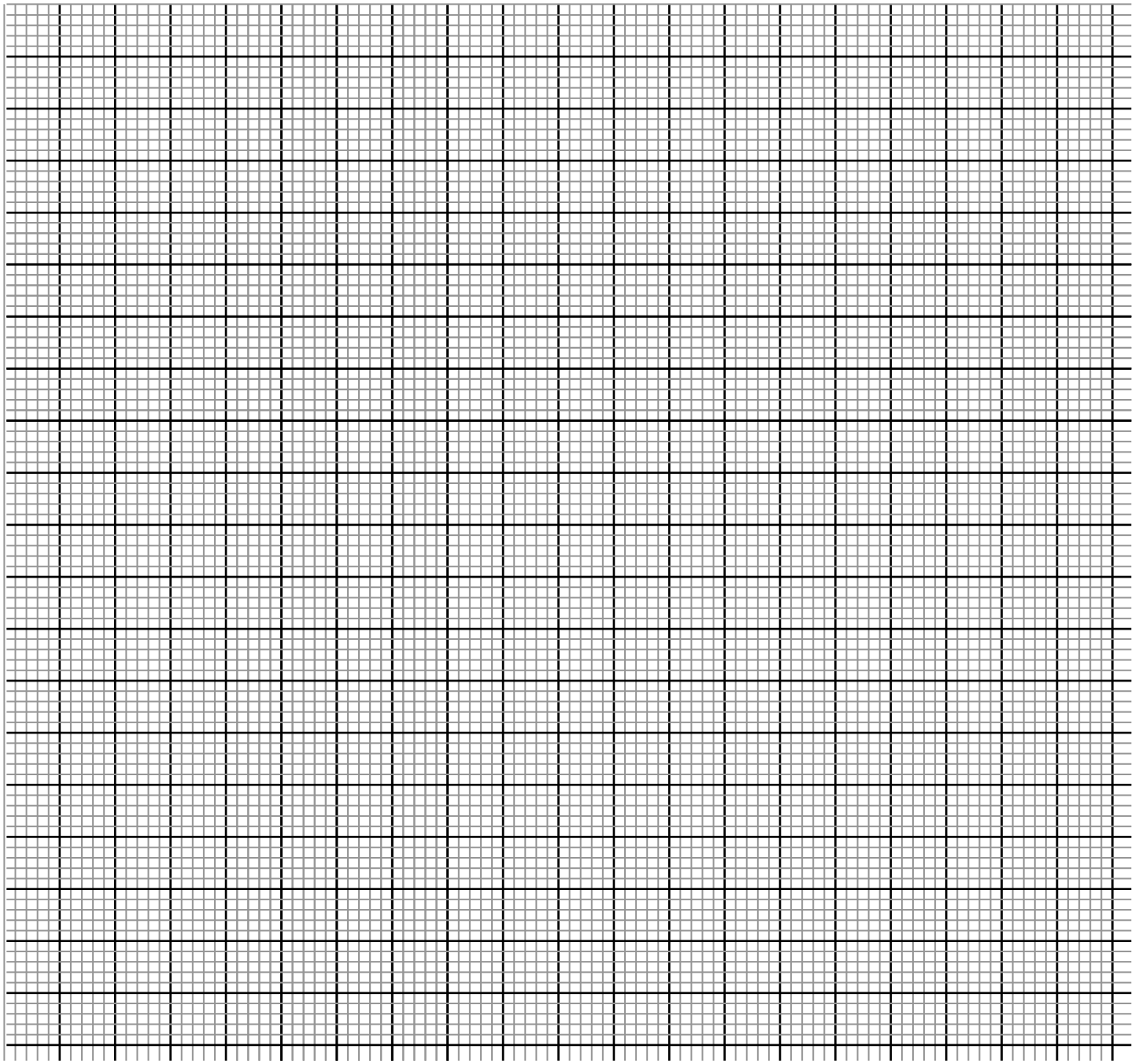
d) The maximum velocity attained **(2 marks)**

23. Complete the table below for **y=sin 2x** and **y=sin (2x + 30)** giving values to 2d.p

X^0	**0**	**15**	**30**	**45**	**60**	**75**	**90**	**105**	**120**	**135**	**150**	**165**	**180**
Sin 2x	0				0.87				-0.87				0
Sin (2x + 30)	0.5				0.5				-1				0.5

(2 marks)

b) Draw the graphs of y=sin 2x and y = sin (2x + 30) on the axis. **(5 marks)**



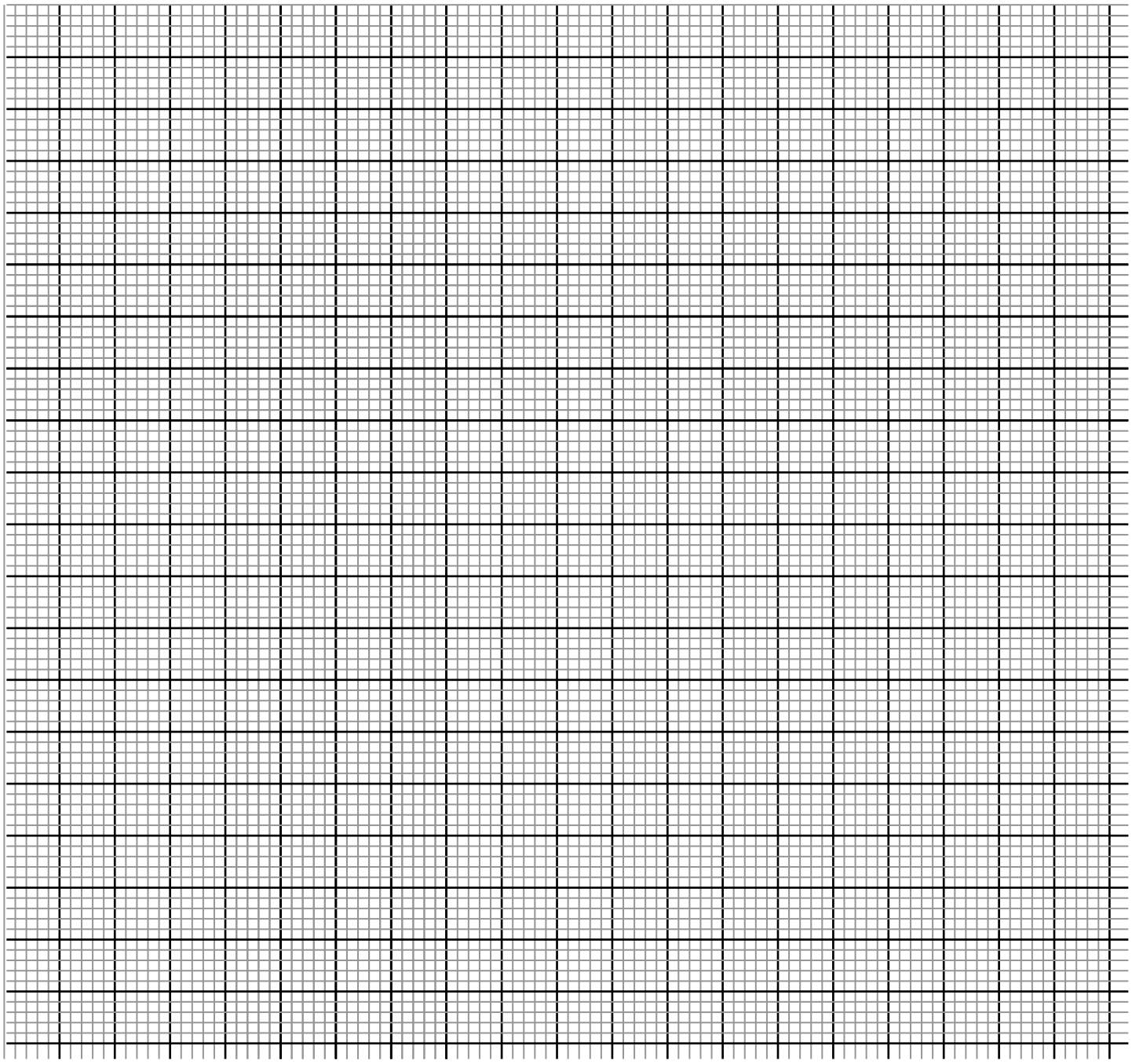
c) Use the graph to solve $sin\ (\ 2x\ +\ 30) - sin\ 2x\ =\ 0$ **(1 mark)**

d) State the period and amplitude of $y\ =\ sin\ (\ 2x\ +\ 30)$ **(2marks)**

24. A trader makes chairs and tables. The cost of each chair is shs.300 while each table costs shs.700. He is prepared to spend not more than shs. 21,000. It is not viable for him to make less than 20 items. chairs must be less than twice the tables but more than 15. By taking the number of chairs as **x** and tables as **y**:

(a) Write down all the inequalities in **x** and **y.** **(4marks)**

(b) Draw the inequalities on the grid provided. **(4marks)**



(c) He sells tables at a profit of shs.140 while chairs at a profit of shs.120;

Determine the maximum possible profit he makes. **(2 marks)**

"END"

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

451/1

COMPUTER STUDIES

PAPER 1 (THEORY)

TIME: 2½ 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 above

2. Answer all questions in section A

3. In section B, ***answer question 16(compulsory)*** *and* ***any other three*** *questions*

4. Candidates should answer the questions in English.

FOR EXAMINER'S USE ONLY

SECTION	QUESTION	CANDIDATE'S SCORE
A	1-15	
B	16	
TOTAL SCORE		

SECTION A (40 Marks)

Answer all questions in this section

1. Identify the computer generation that is associated with each of the following characteristics.

i) Use of computers that imitate human intelligence…… **(1 mark)**

ii) Used of punched cards for data input …….. **(1 mark)**

iii) Use of Large Scale integrated circuits …….. **(1 mark)**

iv) Use of cloud storage …….. **(1 mark)**

2. Distinguish between *line spacing* and *character spacing* as used in word processors. **(2 marks)**

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3. Although super computers have greater processing capabilities than main frame computers, large communications companies prefer main frame computers for management of their data and operations. State **two** reasons for this preference. **(2 marks)**

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4. After purchasing a laptop, Mary realized that it could not connect to the internet through a wireless access point. State **three** possible causes for the failure in connection **(3 marks)**

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5. Aisha found one of her favourite movies on a youtube channel. State **three** advantages of downloading the movie to the computer hard disk and watching it from there instead of streaming it live from the youtube channel. **(3 marks)**

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6. State **two** circumstances that necessitate encryption of data in computer systems **(2 marks)**

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7. A student saved a document in a memory card. Later on the memory card crashed and therefore the work got lost. State **three** precautions that the student should have taken to ensure that the work was not lost. **(3 marks)**

……

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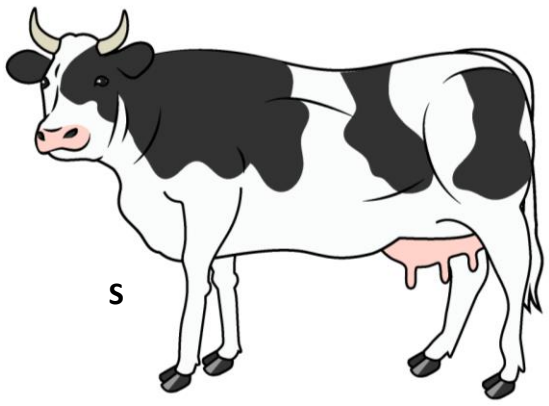
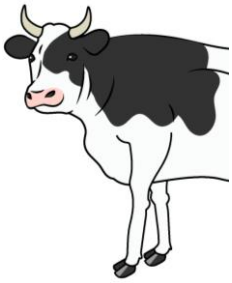
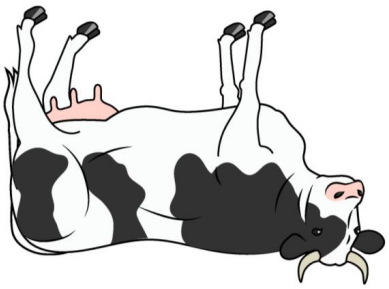
8. Purity inserted a picture labelled **S** in a publication she designed as shown in the figure below.



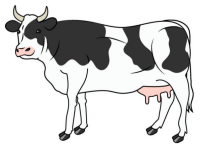
She applied different transformations to achieve the results labelled W, X and Y



W



X



Y

State the transformation applied in each case

W…… (1 mark)

X……..... (1 mark)

Y…… (1 mark)

9. Kennedy inserted a flash disk in a computer to print out a document stored in it but the error message "*USB not recognized*" appeared on the screen of the computer. State **two** possible causes of the error message. **(2 marks)**

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……

10. a) Ben noticed that a USB mouse in one of the desktop computers in the computer lab could not move the pointer on the screen. State **two** ways he could solve that problem **(2 marks)**

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b) Suzzie, a secretary at Achievers secondary school carries out her daily duties using computers and suffers repetitive strain injury. State **two** ways she would use to reduce repetitive strain injury**.** **(2 marks)**

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11. Sarah, a system analyst in Excel Company has decided to use document review in order to collect data necessary for developing a new information system for the company. State **three** reasons that could have influenced her decision to use this method. **(3 marks)**

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12. Explain **two** ways in which growth of the internet has contributed to an increase in computer crimes. **(2 marks)**

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13. When constructing a school's database, Mark set the data type "*number*" for the field "*marks"*. Name **three** field properties that he can set for this data type in order to limit values entered in the field. **(3 marks)**

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14. State **two** ways in which errors that occur during data processing are threat to data integrity. **(2 marks)**

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15. Wireless Fidelity (WiFi) has become one of the most popular modes of internet connection in recent days. State **two** reasons for this trend. **(2 marks)**

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SECTION B (60 Marks)

Answer question 16 (Compulsory) and any other three questions

16. a) State **three** characteristics of third generation languages that distinguish them from all other high level programming languages. **(3 marks)**

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b) Program documentation is categorized as either technical documentation or user –oriented documentation. Classify each of the following documentation components as either technical or user oriented.

i) Program flowchart **(1 mark)**

……

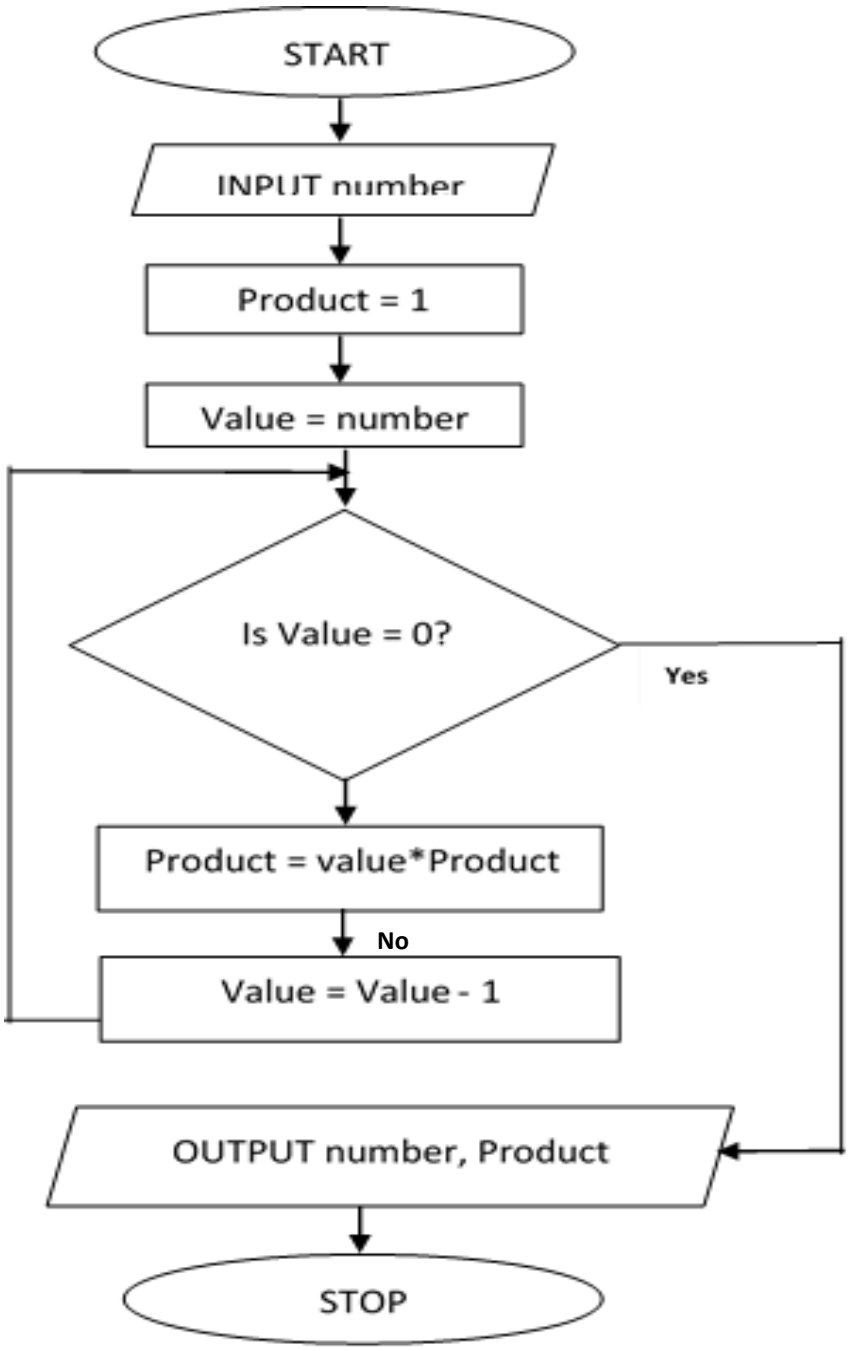
ii) Error handling procedures **(1 mark)**

……

iii) Source code **(1 mark)**

……

c) The figure below shows a flowchart. Use it to answer the questions that follow:



i) Name the control structure used in the flowchart **(1 mark)**

……

ii) Determine all the outputs of the flowchart if the input is the number is five **(3 marks)**

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iii) Write a pseudocode for the flowchart above **(5 marks)**

17. a) The table below shows items extracted from Computer Studies subject score calculations spreadsheet. Use it to answer questions (i) to (ii)

	A	B	C	D
1	**Paper**	**Weight**	**Score**	**Weighted Score**
2	Paper one	0.3	80	24
3	Paper two	0.4	70	28
4	Paper three	0.3	60	18
5				
6	**Average Weighted Score**			**22.66**

Using cell references only, write a function that may have been used to compute the following:

i) the weighted score in D3 **(2 marks)**

ii) Average weighted score in cell D6. **(2 marks)**

b) Explain how social engineering is a threat to data security **(2 marks)**

c) State the **function** of each of the following parts of a spreadsheet window

i) Formula bar **(1 mark)**

ii) Name box **(1 mark)**

d) **State** two functions of a select query in a database **(2 marks)**

e) State **two** characteristics of command line operating systems that make them suitable for configuring computer networks **(2 marks)**

f) When purchasing a word processing software, Atieno was advised to consider its user friendliness. State **three** features that the software should have for her to conclude that it is user friendly: **(3 marks)**

18. a) State **two** characteristics of open systems that make them better than closed systems(**2 mrks)**

b) State the function of each of the following during system construction:

i) Programming language **(1 mark)**

ii) Invalid data **(1 mark)**

c) Explain **two** reasons an organization may change an existing information system **(4 marks)**

d) A school decided to change from a manual examination processing system to an online examination processing system using parallel change over strategy. State **three** challenges they are likely to face when using this changeover strategy. **(3 marks)**

e) Peter was assigned the responsibility of designing the school magazine. State **two** reasons why he would prefer to use DTP software and not a word processor. **(2 marks)**

f) The use of ICT has affected every aspect of human life either negatively or positively. State **two** ways in which ICT has negatively affected the music industry. **(2 marks)**

19. a) A bank with many networked branches uses a data processing mode whereby each branch does its processing independently and then forwards the results to a central computer at the headquarters for final processing.

i) Identify this data processing mode **(1 mark)**

ii) State **two** advantages of this data processing mode **(2 marks)**

b) State **two** reasons why accumulation of dust should be avoided in the computer lab**.(2 marks)**

c) For each of the following, identify the most appropriate internet service:

i) Real time exchange of text messages **(1 mark)**

ii) Personal website for sharing personal opinions on a particular subject **(1 mark)**

iii) Enable people in different geographical locations to hold live meetings **(1 mark)**

d) Tom a network designer was tasked to set up a local area network for Mwangaza Technical institute. He was provided with 4 computers, coaxial cables, 1 printer and 2 terminators. With aid of a well labelled diagram, design the most appropriate network topology that could have been set up by Tom**.** **(3 marks)**

e) State **two** circumstances that may necessitate a network administrator to use a bridge in LAN **(2 marks**

f) Explain a reason why single mode fibre optic cable is preferred for long distance transmission of data signals **(2 marks)**

20. a) One of the characteristics of solid state drives (SSD) is the use of electronic circuits to store data. Explain how binary logic is used to represent data in these devices. **(2 marks)**

b) Convert 17.05_{10} to its binary equivalent **(3 marks)**

c) Using twos complements and 8 bit notation, perform the following subtraction:

$29_{10} - 15_{10}$ **(4 marks)**

d) Perform the following binary arithmetic

11101.011 – 100.110 + 10100.111

leave your answer in decimal notation **(4 marks)**

e) State **two** challenges associated with the use of voice input for securing computer systems **(2 marks)**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

451/2

COMPUTER STUDIES

PAPER 2 (PRACTICAL)

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES:

(a) *Indicate your name and Admission number at the top right-hand corner of each printout.*

(b) *Write your name and admission number on the CD/Removable storage medium provided.*

(c) *Write the name and version of the software used for each question attempted in the answer sheet provided.*

(d) *Answer all the questions.*

(e) *All questions carry equal marks.*

(f) *Passwords should not be used while saving in the CD/Removable storage medium.*

(g) *All answers must be saved in your CD/Removable storage medium.*

(h) *Make a printout of the answers on the answer sheet.*

(i) *Arrange your printouts and tie/staple them together.*

(j) *Hand in all the printouts and the CD/Removable storage medium used.*

(k) *Candidates should answer the questions in English.*

1. **Rembo Company Ltd** deals with sales of **three** types of electronic goods namely television sets, radio systems and smart watches. Below is a table showing details of June 2022 sales.

Rembo Company Ltd. Sales as per 30th June 2022							
Category Code	**Type**	**Item Description**	**Unit Price**	**Sold**	**Total**	**Tax**	**Net Amount**
TV001	TV	32" Vitron TV	16000	8			
TV002	TV	42" Hisense TV	60000	2			
RD001	Radio	Panda Radio	21000	12			
SW001	Watch	Oraimo Watch	7500	15			
TV003	TV	21" LG TV	11000	22			
SW002	Watch	Asorock Watch	6200	18			
TV004	TV	21" Sony TV	15800	14			
SW003	Watch	Apple watch	4500	20			
RD002	Radio	Sundar Radio	3200	30			
RD003	Radio	Revo Radio	4700	8			
TV005	TV	14" Samsung TV	8200	4			
SW004	Watch	Xiaomi Watch	6500	16			
Tax Rates			TV	**15%**			
			Watch	**12%**			
			Radio	**8%**			

Required:

(a) i) Type the following data in a spreadsheet and save it as **Rembo Company** **(14marks)**

ii) Copy the entire worksheet to sheet2 and rename it as **Rembo New** (**2marks)**

(b) Format Rembo new worksheet as follows:

(i) Center the Title across columns. (**2marks)**

(ii) The text should be Cambria, 18 points, bold and centered within a cell. **(2marks)**

(iii) Column Headings to be wrapped within the cells and centered **(2marks)**

(c) The Unit Price to be in two decimals and currency symbol Ksh. **(3marks)**

(d) Use appropriate cell references to calculate:

(i) The total, rounded to two decimals places. **(3marks)**

(ii) The TAX is based on the type of the item. Use the rates given in the table above to calculate tax payable on each item sold. **(3marks)**

(iii) The Net Amount, which is the total less tax. **(3marks)**

(e) Sort the worksheet in ascending order according to category. **(2marks)**

(f) Calculate the **subtotals** and **grand total** for **the three** types of electronic goods. (**6marks)**

(g) On a separate sheet, create a bar graph that compares sales for the three types of electronic goods. Label it appropriately. **(6marks)**

(h) Print the **Rembo new** and the bar graph **(2marks)**

2. i) Open a desktop publishing program and set the page layout in inches as follows. **(5marks)**

a) Paper size : 2.6" width by 3.2" height

b) Portrait: orientation

c) Margins: 0.25" all round

d) Layout type : multiple pages per sheet

e) Target paper size; A4

ii) Designs the card as it appears ensuring that the card covers all the space in the page. **(42marks)**

iii) Save the publication as anniversary card **(1mark)**

iv) Print out 8 copies of the card on a single A4 page **(2marks)**

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

441/1

HOME SCIENCE

PAPER 1 (THEORY)

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 examinations in the spaces provided above.

*c) This paper consists of **three** sections **A, B** and **C.***

*d) Answer all the questions in section **A** and **B** and any other two questions from section **C.***

*e) Answers **must** be written in the spaces provided.*

FOR EXAMINERS USE ONLY

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A	1- 21	40	
B	22	20	
C		20	
		20	
		100	

SECTION A 40MKS

Instructions: Answer ALL questions in this section in the spaces provided

1. Define the term control of fullness **(1mks)**

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2. Identify **two** ways of meeting the social needs of the sick at home **(2mks)**

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3. Highlight **one** reason for washing woolen garments when immersed in water **(1mk)**

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4. State **two** ways in which a neglected kitchen bin could lead to infections **2mks**

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5. Differentiate between needs and wants **(2mks)**

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6.State **two** conditions that can make breastfeeding difficult **(2mks)**

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7. Identify **two** types of knives used in the kitchen and their functions **(2mks)**

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8. State one characteristic of persuasive advertising **(1mk)**

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9. Give **two** reasons for food fortification **(2mks)**

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10. Maroke Girls High school is doing a laundry practical. The following is noticed by one of the students after drying the clothes: stains on the clothes, discoloration on some parts of the garments and a bad smell.

i) State the possible reason for the above observation **(1mk)**

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ii) Suggest **two** suitable solutions for the above observation **(2mks)**

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11. State **two** qualities of a good stitch **(2mks)**

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12. Mention **four** ways of neatening an open seam **(2mks)**

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13. State **two** factors to consider in the choice of a tracing wheel **(2mks)**

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14. List **four** body measurements required when making a pair of trousers. **(2mks)**

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15. Highlight **two** ways of preventing poisoning at home. **(3mks)**

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16. Differentiate between corns and bunions **(2mks)**

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17. Name **2** nutritional disorders associated with lack of calcium in the body **(2mks)**

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18. Give **two** ways of preventing tooth decay **(2mks)**

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19. State **two** advantages of budgeting **(2mks)**

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20. Identify **four** clothes improvised facilities **(2mks)**

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21. State **two** factors to consider when choosing a zip **(2mks)**

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SECTION B (20MKS) COMPULSORY

Answer the following questions in the spaces provided.

20) You are taking care of your aunt who is suffering from scabies.

a) Giving reasons explain how you will launder her pair of white cotton bed sheets **(8mks)**

b) Outline the procedure you will follow to clean your own pair of plastic shoes **(7mks)**

c) Explain how you will clean her porcelain plate **(5mks)**

SECTION C 40MKS

Choose TWO questions from this section and answer in the spaces provide below

23. a) Explain **three** precautions to observe when managing a burn at home **(6mks)**

b) Discuss **three** ways of ventilating a house using windows **(6mks)**

c) Explain **four** principles of food preservation. **(8mks)**

24. a) Explain **four** reasons for appropriate lighting in a house **(8mks)**

b) Describe **three** ways of improvising cleaning materials at home **(6mks)**

c) Explain **three** points you would consider when planning a meal for an invalid **(6mks**

25 a) George a Form four candidate has been failing his examination due to poor laying out of patterns and cutting. Explain **three** points that he should observe **(6mks)**

b) Explain **three** advantages of stewing as a method of cooking **(6mks)**

c) Discuss **four** activities that take place at the antenatal clinic **(8mks)**

END

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

441/2

HOME SCIENCE

PAPER 2

TIME: 2½ HOURS

SCHOOL…… **SIGN……**

(Kenya Certificate of Secondary Education)

(CLOTHING CONSTRUCTION)

(PRACTICAL)CONFIDENTIAL

2½ HOURS

INSTRUCTIONS TO CANDIDATES

The school should provide the following items:

- ✓ *Poplin light coloured fabric 56cm long and 90cm wide*
- ✓ *Matching sewing thread*
- ✓ *Pressing tools*
- ✓ *Sewing machines*
- ✓ *2014 pattern*
- ✓ *Large envelopes*
- ✓ *Buttons 1cm wide*

KCSE 2024 MOKASA JOINT MOCK

SERIES 2

441/2

HOME SCIENCE

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

441\2

HOMESCIENCE

PAPER 2

CLOTHING CONSTRUCTION

TIME: 2 ½ HRS

INSTRUCTIONS TO CANDIDATES

1. The paper consists of three pages
2. Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing.

GIRL'S SKIRT

A pattern of a girl's skirt is provided. You are advised to study the sketches, instructions and layout carefully before you begin the test.

MATERIALS PROVIDED

1. Pattern pieces

A. Skirt back

B. Yoke (front)

C. Lower skirt (front)

D. Front waistband

E. Back waistband

F. Frill

2. Plain lightweight cotton fabric 56cm long and 90cm wide.

3. Sewing thread to match the fabric.

4. One large envelop

5. Button 1cm wide

THE TEST

Using the materials provided, cut out and make the LEFT HALF of the SKIRT to show the following processes:

(a) Cutting out. **(16marks)**

(b) Making the dart at the back skirt. **(6 ½ marks)**

(c) Joining of the yoke front to the lower skirt front using an overlaid seam. **Neaten half the seam using loop stitches**. **(12marks)**

(d) Attaching of the frill to the lower skirt front using a plain seam. **Do not neaten (8mks)**

(e) Making of the skirt side seam from the yoke to the hemline using an open Seam. **(7marks)**

(f) Attaching of the front and back waistbands and holding the back in place using even tacking **stitches** **(20marks)**

(g) Making of the worked buttonhole. **(9marks)**

(h) Working on a button. **(5marks)**

(i) **OMIT**

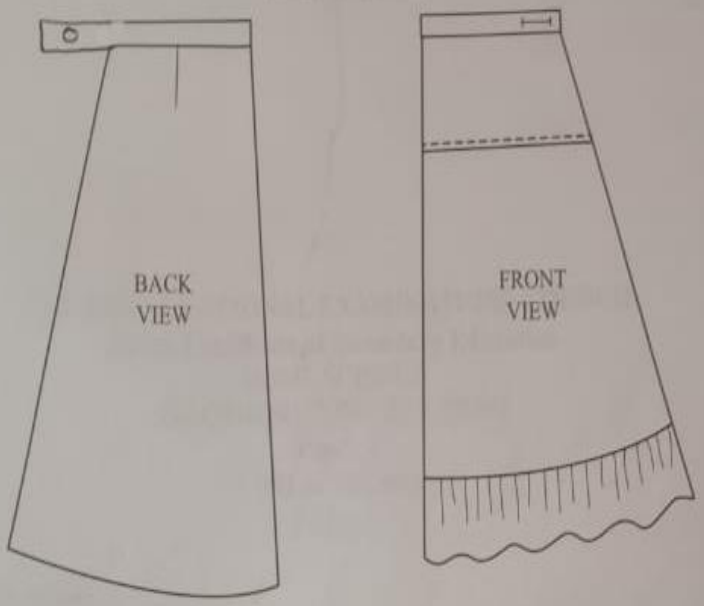
The management of the skirt hem.

(j) Overall presentation. **(6 ½ marks)**

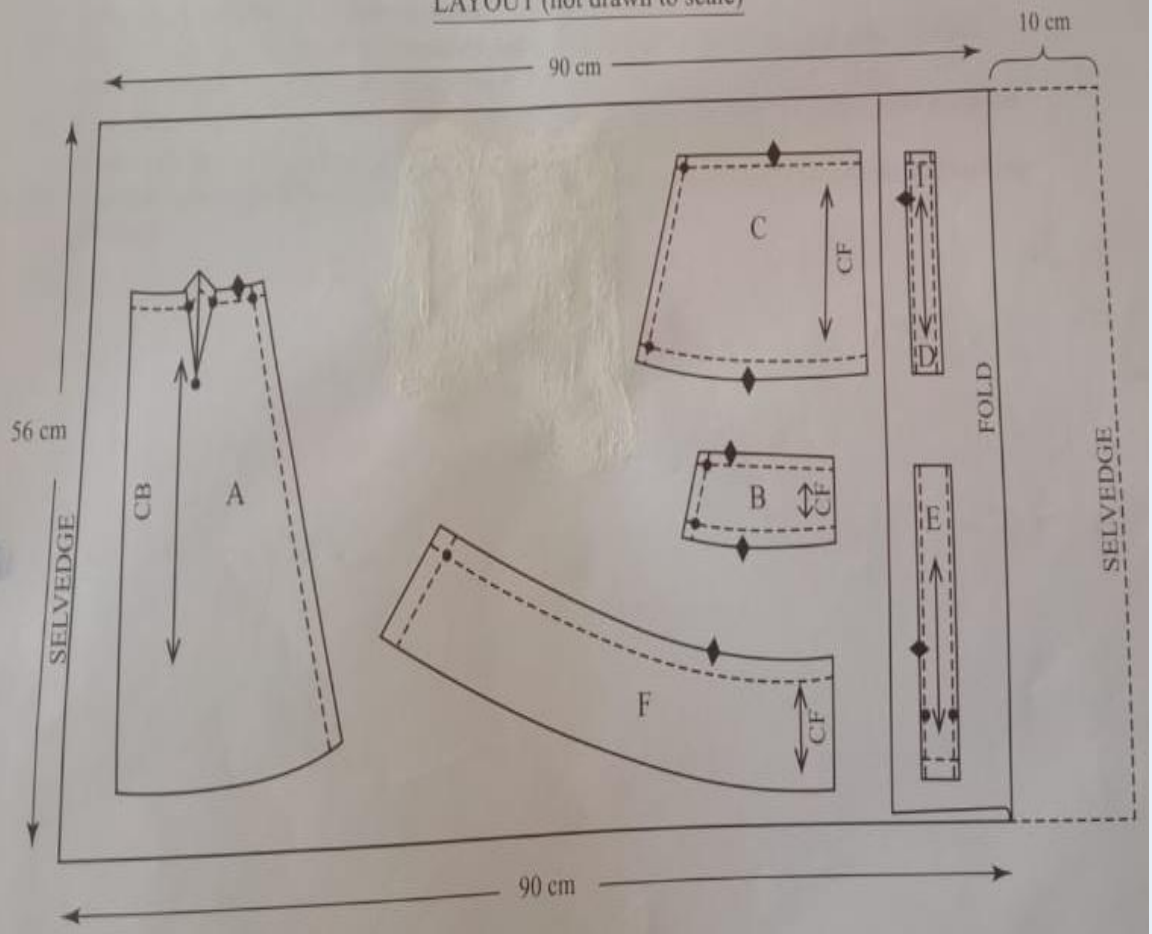
At the end of the examination, firmly sew onto your work, on a single fabric, a label bearing your name and admission number. Remove the needle, pins and loose threads from your work. Fold your work neatly and place it in the envelope provided.

Do not put scraps of fabric in the envelope. Do not seal the envelope.

SKIRT VIEWS



LAYOUT (not drawn to scale)



KCSE 2024 MOKASA JOINT MOCK

SERIES 2

441/3

HOME SCIENCE

PAPER 3

TIME: 3¼ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

[FOOD AND NUTRITION] Practical

Time: 3 ¼ Hours

Planning session: 30 minutes

Practical session 1 ¼ hours

INSTRUCTIONS TO CANDIDATES

- Read the test carefully.
- Textbooks and recipes may be used during planning session as reference materials
- You will be expected to keep to your order of work during the practical session.
- You are not allowed to bring additional notes to the practical session.

THE TEST

Your cousin is convalescing at your home after an abdominal operation. Using the ingredients listed below, prepare, cook and serve a **one-course meal for the two of you. Include a nutritious drink**

Ingredients

- Maize flour/Rice
- Liver/minced beef
- Tomatoes
- Onions
- Dhania
- Kales/cabbages
- Tea leaves/cocoa
- Sugar
- carrots
- milk
- Fat/oil
- Salt
- Spice of your choice

Planning Session.

Use separate sheets of paper for each task listed below and a carbon paper to make duplicate copies and proceed as follows: -

(i). Identify the dishes and write down their recipes

(ii). Write down your order of work.

(iii). Make a list of the food stuff, equipment and materials you would require.

CALL/TEXT/WHATSAPP

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