KCSE INTER-COUNTY MOCKS

KCSE 2024 SERIES

ALL SUBJECTS

Annual Joint Mock Trial contest within the clustered pool of National Schools within the Republic of Kenya.All the Best to our KCSE 2024 Candidates.

SUBJECTS TESTED;

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

SERIES 1

For Marking Schemes

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

MWALIMU CONSULTANCY

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

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

a) Write your Name and Index Number in the spaces provided above.

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

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

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

e) *Each question carries 20 marks.*

f) Candidates must answer the questions in English.

FOR EXAMINER'S USE ONLY.

Question						**Candidate's Total Score**
Candidate's Score						

Answer any five questions in the answer booklet provided

1. **(a) Explain** how the study of Christian Religious Education in secondary schools promotes national unity. **(5 marks)**

   (b) Describe the second Biblical creation account in Genesis 2:4-25. **(8 marks)**

   (c) State seven attributes of God from the Biblical creation accounts. **(7 marks)**

2. (a) Describe the covenant ceremony between God and Abraham in, G**enesis 15:1-19.** **(8 marks)**

   (b) Outline the differences between Jewish Passover and the Christian Easter. **(5 marks)**

   (c) Given **seven** ways how Christians show their respect to God in Kenya today. **(7 marks)**

3. **(a) Explain** how King Solomon fulfilled the prophecy of Samuel about kingship in Israel. **(6 marks)**

   (b) Outline the promises that God made to King David through prophet **Nathan.(8 marks)**

   (c) What is the relevance of the promises made to King David for Christians t**oday.** **(6 marks)**

4. **(a) State** the methods used by Old Testament prophets to communicate their messages. **(7 marks)**

   (b) Give the aspects of Israelites religion which Amos condemned. (**6 marks)**

   (c) What is the relevance of Amos teaching on hypocritical worship in Israel to Christians today. **(7 marks)**

5. **(a) Outline seven** promises the Israelites made during the renewal of the covenant under Nehemiah. **(7 marks)**

   (b) Identify the significance of Jeremiah's symbolic act of buying land (Jeremiah 32:1-15) **(6 marks)**

   (c)State lessons Christians learn from the renewal of covenant under Nehemiah. **(7 marks)**

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6. **(a) Outline** the causes of death in traditional African Communities. **(7 marks)**

   (b) Explain the significance of rituals performed after the death of a person in Traditional African Communities. **(7 marks)**

   (c) State the factors that have affected the traditional African people's dependence on God. **(6 marks)**

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KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

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

a) *Write your name; admission number; Index number; class and date in the spaces provided above.*

b) *This paper consists of six questions.*

c) *Answer any **FIVE** questions in the answer sheet provided*

d) *Each Question carries 20 marks*

Questions No.	1	2	3	4	5	6	GRAND TOTAL
Marks							

*Answer any **FIVE** questions in the answer sheet provided*

1 a) Outline the psalmist's prophecy about the Messiah. **(6mks)**

b) Outline Mary's song (magnificat) . **(7mks)**

c) What evidence in St. Luke's Gospel show that Christ came from a poor family. **(7mks)**

2. a) Identify the instructions given to the 72 disciples of Jesus. **(8mks)**

b) State the teachings of Jesus on how a Christian should approach God in prayer. **(7mks)**

c) Identify ways in which Christians prepare for the coming of Gods kingdom. **(5mks)**

3. a) Outline the events that took place on Mt. Olives before the arrest of Jesus. **(8mks)**

b) Identify reasons why Judas Iscariot betrayed Jesus. **(7mks)**

c) Give the evidence from St. Luke's Gospel that proves Jesus resurrected. **(6mks)**

4. a) Explain what the teaching of Jesus about the vine and the branches in John15:1-10 reveal about the unity of believers . **(8mks)**

b) Identify activities of the church which show that the Holy Spirit is at work in the church. **(7mks)**

c) State leadership qualities shown by Peter the apostle on the day of Pentecost. **(5mks)**

5. a) State reasons why an employee should be given time to rest. **(8mks)**

b) Show how retirement of workers affects their families. **(7mks**

c) Identify the factors that have contributed to misuse of leisure. **(5mks)**

6. a) Describe how wealth was acquired in Traditional African Communities. **(7mks)**

b) Why do some Christians find it difficult to share their wealth with others? **(7mks)**

c) State the rights of a Kenyan citizen. **(6mks)**

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KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

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 **one** limitation of using electronic sources to get historical information**.** **(1mk).**
2. Identify **two** Highland Nilotes in Kenya. **(2mks).**
3. Give the **main** economic activity of the Maasai during the pre-colonial period. **(2mks).**
4. Identify **two** ways of becoming a Kenyan citizen by registration. **(2mks).**
5. Identify **two** symbols of national unity in Kenya. **(2mks).**
6. Give **two** reasons why Seyyid Said moved his capital from Muscat to Zanzibar. **(2mks)**
7. State **two** ways through which the construction of the Uganda railway speeded up colonization of Kenya**.** **(2mks).**
8. Identify the constitutional amendment that led to the re-introduction of multi-party democracy in Kenya. **(1mk).**
9. Name the British administrator who was in charge of the Imperial British East African Company. **(1mk).**
10. What was the **main** contribution of Prof. Wangary Mathai to the development of Kenya.
11. Identify the first political organization in Kenya during the colonial period. **(1mk).**
12. State **two** characteristics of independent churches and schools in Kenya. **(2mks).**
13. Identify the leader who stepped down as the president of Kenya African Union for Jomo Kenyatta. **(1mk).**
14. Give **two** special courts in Kenya. **(2mks).**
15. State one reason for the adoption of Harambee strategy in Kenya after independence. **(1mk).**
16. Identify **two** types of expenditure by the National Government of Kenya. **(2mks).**
17. Identify **one** type of land ownership in Kenya. **(1mk).**

SECTION B.

Answer any three questions from this section.

18.(a). State **five** reasons why the Akamba actively participated in the long distance trade. **(5mks).**

(b). Explain **five** factors that led to the decline of coastal city states**.** **(10mks).**

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19.(a). State **five** methods used by the British to establish their rule in Kenya. **(5mks).**

(b). Explain **five** negative effects of the colonial land policies in Kenya.

20.(a). Give **five** early political organizations formed in Kenya between 1919-1939. **(5mks).**

(b). Describe **five** roles played by trade unions in the struggle for independence in Kenya. **(10mks).**

21.(a). Give **five** ways in which the Harambee philosophy has promoted social development in Kenya**.** **(5mks).**

(b). Explain **five** features of African socialism in Kenya. **10mks).**

SECTION C.

Answer any two questions from this section.

22.(a). Give the composition of the County Executive Committee**.** **(3mks).**

(b). Explain **six** ways in which the National Government relates with County Governments in Kenya**.** **(12mks).**

23.(a). Identify **three** disputes resolved by the kadhis courts**.** **(3mks).**

(b). Explain **six** functions of the Chief justice in Kenya**.** **(12mks).**

24.(a). Give **three** factors that led to the introduction of multy-party democracy in Kenya**.** **(3mks).**

(b). Describe **six** achievements of multi-party democracy in Kenya in the early 1990s. **(12mks).**

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KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

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.

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 one limitation of anthropology sources to get historical data. **(1mk).**

2. Who discovered the Evolution theory**.** **(1mk).**

3. State two disadvantages of the land enclosure system in Britain. **(2mks).**

4. List one disadvantage of cell phone as a means of communication. **(1mk).**

5. Identify two metals that were used as currency in pre-colonial Kenya. **(2mks).**

6. Give one material where early writing was done. **(1mk).**

7. Identify the main reason for the decline of the Trans Atlantic trade**.** **(1mk).**

8. Give two factors that led to the decline of Kilwa town. **(2mks).**

9. State two methods used by the European powers to acquire colonies in Africa. **(2mks).**

10. Name one community which participated in the maji maji rebellion**.** **(1mk).**

11. State two reasons for the entry of USA into the First World War. **(2mks).**

12. State two European activities in Africa during the 19th century**.** **(2mks).**

13. Name one member of the Tripple Entente during the First world war. **(1mk).**

14. Identify the main cause of the cold war. **(1mk).**

15. Give two financial institutions established by the African Union. **(2mks).**

16. Name one major political party in the USA. **(1mk).**

17. Identify two parliamentary duties of the monarch in Britain. **(2mks).**

SECTION B.

Answer any three questions from this section.

18. (a). State **five** pull factors that led to the scramble for colonies in Africa**.** **(5mks).**

(b). Explain **five** reasons why Ghana achieved her independence earlier than other African countries**.** **(10mks).**

19. (a). Identify **three** ways in which water was used in industries during the 18th century. **(3mks).**

(b). Explain **six** effects of the scientific invention in industry**.** **(12mks).**

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20. (a). Identify **three** principles of the Arusha declaration of 1967**.** **(3mks).**

(b). Explain **six** political challenges that have faced African countries since independence. **(12mks).**

21. (a). State **five** factors which influenced the British to use indirect rule in Nothern Nigeria. **(5mks).**

(b). Explain **five** challenges which were experienced in the implementation of assimilation policy in Senegal. **(12mks).**

SECTION C.

Answer any two questions from this section.

22.(a). Identify **three** conditions Austria gave to Serbia following the assassination of Arch Duke Franz Ferdinand in 1914. **(3mks).**

(b). Explain **six** effects of the first world war. **(12mks).**

23. (a). Give **five** organs of the African Union**.** **(5mks).**

(b). Explain **five** challenges facing the East African Community up to 1977. **(10mks).**

24. (a). Identify **three** levels of elections in India**.** **(3mks).**

(b). Explain **six** functions of the cabinet in India. **(12mks).**

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KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

312/1 Geography Paper 1

Time: 2¾ Hours

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO THE CANDIDATES.

1. *Write your name, index number and other required details in the spaces provided.*
2. *Sign and write the date of the examination in the spaces provided.*
3. *This paper consists of two sections A and B.*
4. *Answer all questions in section A.*
5. *Answer questions 6 and any other two questions in section B.*
6. *Answers must be written on the foolscaps provided*

FOR EXAMINER'S USE ONLY.

Section	Questions	Maximum score	Candidate's score
A	1-5	25	
B	6	25	
	25		
	25		
TOTAL SCORE	100		

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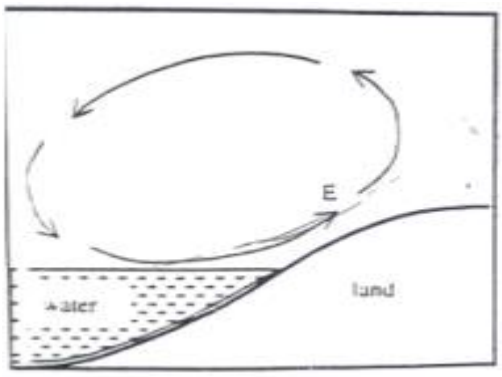
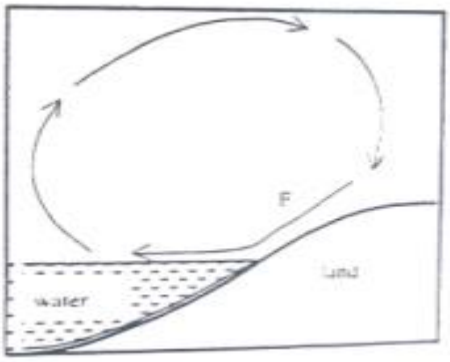
SECTION A

Answer all questions in this section

1. The diagram below represent the flow of air currents. Use it to answer question a and b.





a) Name the air current marked F. **(1mk)**

b) Describe how the air current marked E occurs. **(4mks)**

2. a) What is Relative Humidity? **(2mks)**

b) The table below shows temperature readings of Dry bulb thermometer and wet bulb thermometer in three weather stations.

STATION	DRY BULB THERMOMETER	WET BULB THERMOMETER
J	**30^0C**	**28^0C**
K	**30^0C**	**5^0C**
L	**30^0C**	**30^0C**

Give the state of relative humidity in station J, K and L. **(3mks)**

3. a) Differentiate between a magnitude of an earthquake and intensity of an earthquake. **(2mks)**

b) Describe how a dyke is formed. **(3mks)**

4. a) Name **two** types of ice masses found on mountains in East Africa. **(2mks)**

b) State **three** distinctive characteristics of a pyramid peak. **(3mks)**

5. a) Name **two** ocean currents along the Western Coast of Africa. **(2mks)**

b) State **three** causes of ocean currents. **(3mks)**

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SECTION B

Answer question 6 and any other two questions.

6. Study the map of Kisumu East 1:50,000 (sheet 116/2) provided and answer the following questions.

a) i) What type of map is Kisumu East Sheet? **(1mk)**

ii) Give the vertical interval of the map. **(1mk)**

iii) State the latitudinal and longitudinal position of North West corner of the map. **(2mks)**

b) i) What is the bearing of the trigonometrical station at Grid reference 081980 from rock outcrop at grid reference 071992? **(2mks)**

ii) Measure the length of all weather road bound surface B2/1 from the junction at Grid reference 974911 to the edge of the map grid reference 947967. Give your answer in kilometres. **(2mks)**

c) i) Draw a cross section between Grid Reference 070940 and 070980. Use a vertical scale 1cm to represent 100 metres. **(4mks)**

ii) On the cross section, mark and name:-

- All weather road bound surface. **(1mk)**
- River **(1mk)**

iii) Calculate the vertical exaggeration (VE) of the cross section. **(2mks)**

d) Describe the relief of the area covered by the map. **(5mks)**

e) Citing evidence from the map, give two social services offered in Kisumu Town. **(4mks)**

7. a) Describe the following characteristics of minerals.

i) Lustre **(2mks)**

ii) Density **(2mks)**

iii) Cleavage **(2mks)**

b) Giving an example for each, describe the three types of mechanically formed sedimentary rocks. **(9mks)**

c) You are required to carry out a field study on the types of rocks within the vicinity of your school.

i) State four reasons why you would conduct a reconnaissance **(4mks)**

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ii) State how you would use the following items during the field study.

- Geological hammer **(2mks)**
- Magnifying lens **(2mks)**
- Geological map **(2mks)**

8. a) Give **two** types of Earth Movement within the earth's crust. **(2mks)**

b) i) Describe the origin of continents according to the theory of Continental Drift. **(6mks)**

ii) Explain the following evidence which support the theory of Continental Drift.

- Paleontological evidence. **(2mks)**
- Paleoclimatic evidence. **(2mks)**
- Sea floor spreading. **(2mks)**

c) i) Name **one** fold mountains in:-

- North America **(1mk)**
- Asia **(1mk)**
- Africa **(1mk)**

ii) With the aid of well labeled diagrams, describe how Fold Mountains are formed. **(8mks)**

9. a) i) What is a river Divide. **(2mks)**

ii) Describe the three types of River Erosion. **(9mks)**

b) Explain the following drainage patterns and systems.

i) Dendritic. **(2mks)**

ii) Superimposed. **(4mks)**

c) Explain four ways in which Rivers Negatively affect human environment**.** **(8mks)**

10. a) i) What is soil texture. **(2mks)**

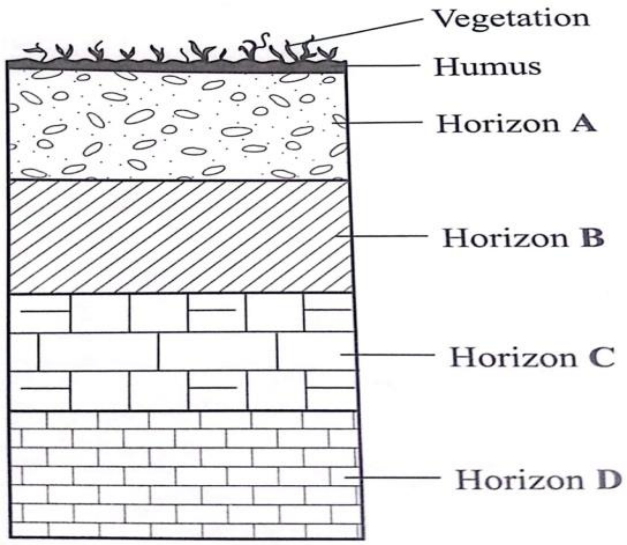
ii) Give **two** types of soil according to texture. **(2mks)**

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

i) Parent Rock **(4mks)**

ii) Living organisms. **(4mks)**

c) The diagram below represents a well-developed soil profile. Use it to answer question C.



i) Name three layers of Horizon A **(3mks)**

ii) Describe the characteristics of Horizon B. **(3mks)**

d) i) State three economic benefits of soil. **(3mks)**

ii) Describe the following types of soil erosion.

- Sheet erosion. **(2mks)**
- Gully erosion. **(2mks)**

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

312/2 Geography Paper 2

Time: 2¾ Hours

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO THE CANDIDATES.

a) *Write your name, index number and other required details in the spaces provided.*
b) *Sign and write the date of the examination in the spaces provided.*
c) *This paper consists of two sections A and B.*
d) *Answer all questions in section A.*
e) *Answer questions 6 and any other two questions in section B.*
f) *Answers must be written on the foolscaps provided*

FOR EXAMINER'S USE ONLY.

Section	Questions	Maximum score	Candidate's score
A	1-5	25	
B	6	25	
	25		
	25		
TOTAL SCORE	100		

For Marking Schemes Contact 0746 222 000 / 0742 999 000

SECTION A

Answer all questions in this section

1. The table below shows petroleum production in thousand barrels per day for countries in Middle East in April 2006. Use it to answer question (a)

COUNTRY	PRODUCTION IN '000 BARRELS
Iran	**3,800**
Kuwait	**2,550**
Qatar	**800**
Saudi Arabia	**9,600**
United Arab Emirates	**2,500**
Iraq	**1,900**

a) i) What is the difference in production between the highest and lowest producer. **(1mk)**

ii) What is the total amount of petroleum produced in April 2006 in the region? **(1mk)**

iii) Calculate the average daily petroleum production for Kuwait for April 2006. **(1mk)**

b) State **three** ways in which Kenya can reduce the use of petroleum as a source of energy. **(3mks)**

2. State **four** differences between soft wood forests in Kenya and Canada. **(4mks)**

3. a) Give **two** provinces in Canada that produce wheat on large scale. **(2mks)**

b) State **three** uses of wheat. **(3mks)**

4. a) In 1989 Kenya's population was 21.4 million while in 1999, it was 28.7 million. Calculate the population growth rate over the 10 year period. **(2mks)**

b) State **three** ways in which the population of Kenya differs from the population of Sweden. **(3mks)**

5. a) Identify the **two** types of internal trade. **(2mks)**

b) Give **three** factors that limit trade among the member states of the common market for Eastern and Southern Africa. **(COMESA)** **(3mks)**

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SECTION B

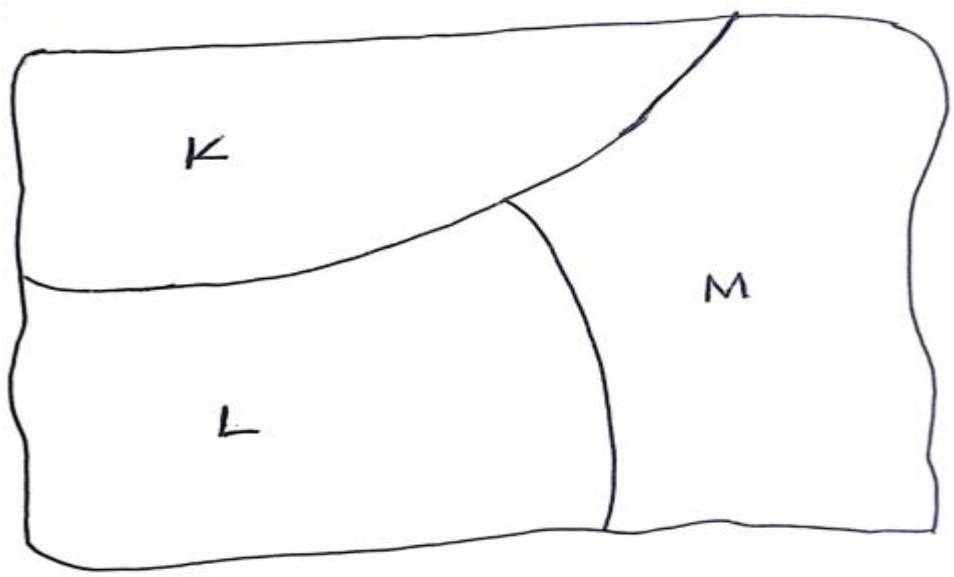
Answer question 6 and any other two questions.

6. a) The table below shows the distribution of Beef cattle in three regions in country X.

REGION N	NUMBER OF BEEF CATTLE
K	**500,000**
L	**350,000**
M	**200,000**

i) Using a scale of 1 dot to represent 50,000 cattle, draw a dot map to show the distribution of Beef cattle in the three regions in country X. Show all your workings. **(8mks)**

In your answer booklet draw and use the sketch below



ii) Give **three** advantages of using a dot map to represent geographical data. **(3mks)**

b) i) Name **three** exotic breeds of cattle reared in commercial ranches in Kenya. **(3mks)**

ii) Explain **six** roles played by Beef farming to the economy of Kenya. **(6mks)**

c) Give **five** reasons why Beef production is higher in Argentina than Kenya. **(5mks)**

7. a) i) What is mining. **(2mks)**

ii) Name the area where the following minerals are mined in Kenya.

- Diatomite **(1mk)**
- Salt **(1mk)**

b) Explain how the following factors influence the occurrence of minerals.

i. Evaporation **(2mks)**

ii. Vulcanicity **(2mks)**

iii. Metamorphism **(2mks)**

c) i) Name **two** minerals mined by placer mining method. **(2mks)**

ii) Describe placer mining method. **(5mks)**

d) Explain **four** ways through which mining promotes industrialization in Kenya. **(8mks)**

8. a) i) Give **two** methods that are used to drain swamps. **(2mks)**

ii) State **four** physical factors which influenced the location of Mwea Irrigation Scheme. **(4mks)**

b) i) Name **three** areas which make up the Zuyder Zea reclamation project in the Netherlands. **(3mks)**

ii) Explain **four** ways in which the Zuyder Zea Project benefits the Netherlands. **(8mks)**

c) You intend to carry out a field study on irrigation farming in Perkerra Irrigation Scheme.

i) Identify **two** types of hypothesis you would develop for the study. **(2mks)**

ii) Name **three** crops grown in the scheme you are likely to identify. **(3mks)**

iii) Give **three** reasons why you would sample the area of study. **(3mks)**

9. a) i) What is wildlife. **(2mks)**

ii) State **three** factors that favour establishment of National Parks in semi-arid areas of East Africa. **(3mks)**

b) i) Apart from Historical sites, name three tourist attractions found at the Coast of Kenya. **(3mks)**

ii) State **three** reasons why it is necessary to preserve historical sites in Kenya. **(3mks)**

c) Explain **four** problems associated with tourism in Kenya. **(8mks)**

d) Explain the differences between tourism in Switzerland and Kenya under the following subheadings.

i. Climate **(2mks)**

ii. Beaches **(2mks)**

iii. Purchasing power **(2mks)**

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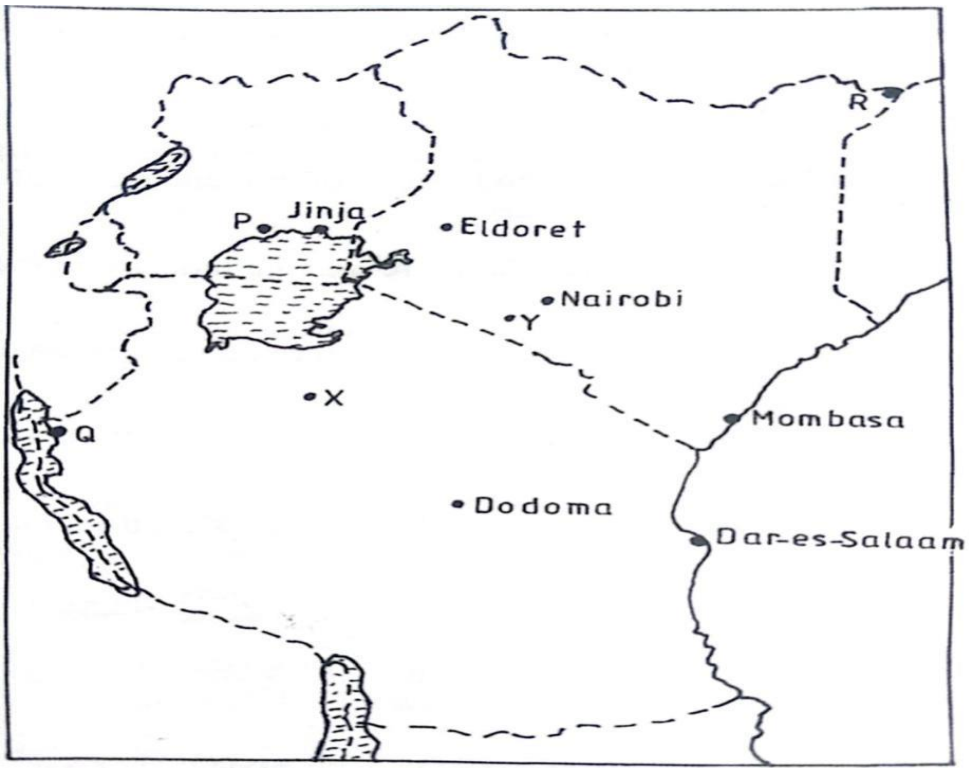
10. a) Name the **two** types of Human Settlement. **(2mks)**

b) The map below shows the location of some urban centres in East Africa.



i) Name the towns marked P,Q and R. **(3mks)**

ii) Name the minerals that influenced the growth of the towns X and Y. **(2mks)**

c) i) Apart from Thika, Name two other towns in Kenya where motor vehicle assembling plants are located. **(2mks)**

ii) Explain how the following factors led to the growth of Thika town.

- Availability of water **(2mks)**
- Hinterland **(2mks)**
- Proximity to Nairobi **(2mks)**
- Land **(2mks)**

d) Explain four measures that could be taken to control high rate of crimes in urban centres in Kenya. **(8mks)**

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

101/1 English Paper 1

(Functional Writing, Cloze Test and Oral Skills.)

Time: 2 Hours

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO STUDENTS

1. *Write your name, admission number and class in the spaces provided above.*
2. *Answer **all** the questions in this question paper.*
3. *All your answers **must** be written in the spaces provided in this question paper.*

FOR EXAMINER'S USE ONLY

QUES.	MAX. SCORE	STUDENT'S SCORE
1	**20**	
2	**10**	
3	**30**	
TOTAL SCORE		

For Marking Schemes Contact 0746 222 000 / 0742 999 000

1. FUNCTIONAL WRITING 20 MARKS

You are the chairperson of the Creative Writing Club in your school. The club would like assistance in publishing the winning entry in a recent writing competition. Write a letter to a publisher asking them to consider the book for publication. Write the letter through your Principal.

In your letter, include the following:

- The title of the book and name of author
- A brief description of what the book is about
- Why it is important for the book to be published

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2. CLOZE TEST

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

A rich vocabulary can only be acquired through wide reading, and can only be (a)---------- in the mind through (b) ----------extensive reading. Dictionaries are useful up to a point. They give information where needed. (c) ---------- the exact flavour of a word can only (d)---------- familiar with repeated encounters of (e) ----------in different contexts. It is (f)---------- remembering that we acquire (g) ---------- all our active vocabulary without the help of a dictionary at all. (h) ---------- in the acquisition of vocabulary, the course book and the dictionary are mere (i) ---------- in a more natural process founded chiefly (j) ---------- leisure-time reading.

3. ORAL SKILLS 30 MARKS

a) Read the following story and answer the questions that follow.

WHY TURTLES LIVE IN WATER

Story, story!

Turtles used to live on the land, they say, until the time a clever turtle was caught by some hunters. They brought him to their village and placed the turtle before the Chief, who said, "How shall we cook him?"

"You'll have to kill me first," said the turtle, "and take me out of this shell."

"We'll break your shell with sticks," they said.

"That'll never work," said the turtle, "Why don't you throw me in water and drown me?"

"Excellent idea," said the Chief. They took the turtle to the river and threw him into the water to drown him.

They were congratulating themselves on their success in drowning the turtle, when two little green eyes poked up in the water and the laughing turtle said, "Don't get those cooking pots out too fast, foolish people!" As he swam away he said, "I think I'll spend most of my time from now on, safely in the water,"

It has been that way ever since!

i) What **two** possible ways would you effectively capture the attention of your audience as you begin to narrate the story? **(2marks)**

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ii) How would you perform the line, "Don't get those cooking pots out too fast, foolish people!"?

(2 marks)

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iii) How would you use your voice effectively during the narration? **(3marks)**

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(b) Which intonation would you use to say each of the following sentences: (3 marks)

(¡) Are you hungry? .....

(ii) It's a lovely wedding!.....

(iii) These are my shoes. .....

(c) Rewrite the following message replacing the words in bold with homophones that would make the message sensible. (5 marks)

Deer Mercy, Many **daze** have **past** but **eye no ewe** have **grate** patience. **Aisle prey** that your **weight** comes to an end. See you soon. Jane Kamau

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(d) Assume that you attended a youth conference on drug abuse.

Your principal has asked you to give an oral report during an assembly.

After your speech your friend congratulated you for managing stage fright effectively. What **four** indicators would your friend have **noticed or heard** if you had experienced the fear and anxiety associated with public speaking? **(4 marks)**

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(e) Your school holds a session on Life Skills every Wednesday evening. Some Form One students confide in you that they find it difficult to understand and remember what is said during these sessions.

What **four** tips would you share with them on how to acquire and improve their listening skills? **(4marks)**

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(f) Fill in the gaps in the following conversation so that it flows naturally.

Mark: Martha, I would like to invite you to a football game at Kasarani stadium tomorrow afternoon.

Martha **(1 mark)**

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……

……

Mark: Oh! Why is it that many girls are not football fans? Anyway, even if you don't enjoy the game, you might enjoy my company.

Martha:.....

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

Mark: Thank you. That's nice of you to say. So, is it a deal then?

Martha:.....

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

Mark: And what condition is that?

Martha:.....

…… **(1 mark)**

Mark: But I don't like watching movies.

.....

..... …….. **(1 mark)**

Martha: Boring? In that case ....

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

Mark: Wait.Wait……

…… **(1 mark)**

Martha: I don't think you're being selfish; all the same, I accept your apology.

Mark: Thank you. I agree with your suggestion. A football game followed by a movie it shall be.

THIS IS THE LAST PRINTED PAGE

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

101/2 English Paper 2

Time: 2½ Hours

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUTIONS TO CANDIDATES.

a) *Write your name, class and admission number in the spaces provided above.*

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

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

d) *All your answers must be written in English.*

FOR EXAMINER'S USE ONLY

Question	Maximum score	Candidate's score
1	20	
2	25	
3	20	
4	15	
	TOTAL SCORE	

1) <u>Read the following passage and answer the questions that follow. (20mks)</u>

It is lonely at the lands where people go to plough. These lands are vast clearings in the bush, and the wild bush is lonely too. Nearly all the lands are within walking distance from the village. In some parts of the bush where the underground water is very near the surface, people made little rest camps for themselves and dug shallow wells to quench their thirst while on their journey to their own lands.

They experienced all kind of things once they left the village. They could rest at shady watering places full of lush, tangled trees with delicate pale-gold and purple wild flowers springing up between soft green moss and the children could hunt around for wild figs and any berries that might be in season. But from 1958, a seven-year drought fell upon the land and even the watering places began to look as dismal as the dry open thorn-bush country; the leaves of the trees curled up and withered; the moss became dry and hard and, under the shade of the tangled trees, the ground turned a powdery black and white, because there was no rain. People said rather humorously that if you tried to catch the rain in a cup, it would only fill a teaspoon.

Towards the beginning of the seventh year of drought, the summer had become an **anguish** to live through. The air was so dry and moist-free that it **burned** the skin. No one knew what to do to escape the heat and tragedy was in the air. At the beginning of that summer, a number of men went out of their homes and hung themselves to death from trees. The majority of the people had lived off drops, but for two past years they had all returned from the lands with only their milled-skin blankets and cooking utensils. Only the charlatans, enchanters and witchdoctors made a pile of money during this time because people were always turning to them in desperation for little talismans and herbs to rub on the plough for the crops to grow and the rain to fall.

The rains were late that year. They came in early November, with a promise of good rain. It wasn't the full, steady downpour of the years of the good rain, but thin, scanty, misty rain. It softened the earth and a rich growth of green things sprang up everywhere for the animals to eat. People were called to the village to hear the **proclamation** of the beginning of the ploughing season; they stirred themselves and whole families began to move off to the lands to plough.

(Adapted from ***Looking for a Rain God and Other Short Stories*** by Bessie Head. Macmillan Kenya Publishers)

<u>QUESTION</u>

a) Where did people dig shallow wells? **(2mks)**

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b) What happened to the watering places from 1958**?** **(2mks)**

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c) Why was summer an anguish to live through? **(2mks)**

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d) Why do you think the men committed suicide? **(2mks)**

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e) How did the people feel after the rains returned? **(2mks)**

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f) Identify an instance of comic relief in the passage. **(2mks)**

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g) What shows that the people in the passage were superstitious? **(2mks)**

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For Marking Schemes Contact 0746 222 000 / 0742 999 000

h) Suggest **three** ways through which the disaster faced by people in the passage could be averted in future. **(3mks)**

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i) Explain the meaning of the following words as used in the passage. **(3mks)**

Anguish

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Burned

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……..

Proclamation

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2) Read the following excerpt and then answer the questions that follow. (25 mks)

As she was removing her head veil the next morning, readying for laboratory work that it would have impeded, he went and slapped her. What made this assault seem "reasonable' wasthat it happened during Heritage Week, a period that the leader of Libya had set aside to givehis people time to celebrate their renowned history.

Apparently, then, Engineer Tahir slapped Ms Mahmoud to administer discipline on a female subordinate for shedding her head veil in public, in violation of Libyan culture. In truth, he did it to take revenge against someone who, he thought, had rejected his advances. Discipline, revenge, or whatever it in fact was, she did not take it lying down. She struck back. Had she stopped to think of the chain of events her reaction might set off, she would have restrained herself.

Yet, in the heat of anger, when no one thinks logically, who has not reacted by reflex and hit back on being hit first"? Who has not so reacted even if, in the light of likely future consequences, turning the other cheek would have been a better response? Ms Mahmoud hit back by reflex. A letter opener, obeying her hand, sliced through a semicircle of air and founda soft target. Its tip,

sharp on the day of purchase but sharper and sharper each day from use, caught Engineer Tahir right in his left eye and slit it open. That was 'the accident.'

A month later, he came out of hospital. His left eye, cut open by a mundane office instrument, was gone. Turned bitter and vengeful now, Engineer Tahir took Ms Mahmoud tocourt the day he came out of hospital. Why, the court enquired of him, had he slapped her inthe first place? To stop her from imitating Americans by shedding the head veil in violation of Libya's culture, he said. Then why, wondered the court, had she hit back? To defy not himbut Libya, he replied.

She pleaded innocent, citing, as her defence, temporary insanity caused by extreme provocation. The court returned a Hammurabic verdict-an eye for an eye, and a tooth for atooth.

QUESTIONS

a) What happened immediately before this excerpt? **(2 marks)**

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b) Discuss one theme evident in this excerpt. Give two illustrations from the excerpt. **(3marks)**

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c) "Had she stopped to think about the chain of events her reaction might set off.." explain the events that came as a result of her action. **(4 marks)**

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d) Identify and illustrate two styles used in the excerpt. **(4 marks)**

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e) Using information from this excerpt, discuss the character traits of Seif Tahir. **(4 marks)**

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f) What reason did Seif give the court for slapping Ms Mahmoud**?** **(2 marks)**

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g) Ms Mahmoud pleaded innocent. Is she innocent? Support your answer. **(2 marks)**

……

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h) What happens immediately after this excerpt? **(2 marks)**

……

……

……

……

i) Explain the meaning of the following statement. **(2 marks)**

An eye for an eye, and a tooth for a tooth.

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3) Read the following narrative and answer the questions that follow. (20mks)

Once upon a time, before the coming of the white people, there lived a great Luo military leader called Luanda Magere. Luanda was a fierce leader and always led his army to victory against their enemies.

The surprising thing about Luanda was that no matter how many spears and arrows were shot at him, they never seemed to go through his body. He was unbeatable. His enemies visited many diviners to find out his secret but without success. They had begun to despair about ever defeating Luanda Magere when one of them came up with a bright idea. They went to Luanda Magere, pretending to negotiate for peace, and offered one of their women as a token of reconciliation.

Luanda Magere fell for the trick and with time he became very fond of his new wife. Though the woman was under strict instructions from her people to try and extract the secret of Luanda's greatness from her husband, he kept the secret hidden from her. He resisted revealing his secret to her for a long time.

If at any time Luanda fell ill, only his first wife, *mikayi,* would nurse him. However, one time Luanda fell ill and his young wife was the most loving nurse. The kind of medicine he needed was to be rubbed on incisions made on specific parts of his body. Luanda Magere's wife took a sharp knife to make incisions on his body in order to rub the medicine in. She tried and tried but the sharp knife could not cut into his skin. She found this very strange.

"How will I rub the medicine in when I can't make an incision?" she asked her sick husband.

"Oh," he groaned, "if you want to cut my body, you make the cuts on my shadow."

She smiled inwardly and began making cuts on the shadow. She noticed that when she cut on the shadow, Luanda's body would bleed on the same spot as she had cut on the shadow. She had gotten the secret! For several days she nursed her sick husband until he got well, then one day she got an excuse to visit her people, and she passed on the secret.

Within a short time, war broke out between Luanda Magere's people and their enemies. This time the enemies knew what to do. One warrior from the enemy side managed to sneak near Luanda Magere and drove his spear through the great warrior's shadow. Instantly, Luanda dropped dead. But what was amazing is that he did not just die; he turned into a huge rock that can be seen even today.

It is said that weapons that are sharpened on this rock become quite **lethal**.

Questions

a) With a reason for your answer, say what kind of a narrative this is. **(2mks)**

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b) Explain three features typical of oral narratives found in this tale. **(6mks)**

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c) State two elements of fantasy in this narrative. **(2mks)**

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d) Mention two possible challenges you would encounter in the field if you went to collect this oral item and the possible remedies**.** **(4mks)**

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……

e) "How will I rub the medicine in when I can't make an incision?" she asked her sick husband. (Write in reported speech) **1mk**

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f) Describe the character trait of the enemies in the narrative and that of Luanda Magere.

(4mks)

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g) Provide a synonym for **lethal** as used in the passage. **(1 mark)**

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4) GRAMMAR (15mks)

i) Answer the questions according to the instructions given. (3mks)

a) I do not know the man's name. I do not know where he comes from.

(Combine using: … neither … nor …)

……

……

b) Will you take tea? Will you take coffee? (Combine using: 'or'.

……

c) The train left immediately we boarded it. (begin: Barely …)

……

ii) Fill in the blanks with the appropriate prepositions. (3mks)

a) He was charged …..... murder.

b) Grace deals …… groceries.

c) The chief guest commended us …… our good performance.

iii) Give two meanings from the sentence below. (2mks)

a) Old men and women attended the ball at The Stenborgs.

……

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……

iv) Replace the underlined words with the correct phrasal verbs. (3mks)

a) The twins <u>resemble</u> their maternal grandmother. ……

b) We should not <u>despise</u> the less fortunate in society. ……

c) His car was <u>destroyed</u> after the accident. …….

v) Fill the blanks with the correct form of the words in brackets. (3mks)

a) The …… couple adopted the little girl. (child)

b) Who does not like an …….. judge? (corrupt)

c) Nobody knows the …….. day. (depart)

vi) Use a reflexive pronoun to fill in the blank space. (1mk)

a) The weather …….. cannot allow for outdoor activities.

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

101/3 English Paper 3

Time: 2½ Hours

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

i. *Answer three questions in total.*

ii. *Question one has two questions. Choose either (a) or (b)*

iii. *Question two is compulsory*

iv. *Choose one question from question three.*

FOR EXAMINER USE ONLY

QUESTION	MARKS
1a b	
2	
3a	
3b	
3c	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

QUESTION ONE **(20 marks)**

1. a) write a composition based on the saying "patience pays**"**

or

b) write a composition on ways in which the government should fight drug and substance abuse among youth today.

COMPULSORY SET TEXT ESSAY **(20 marks)**

2. Change can be initiated through the effort of ordinary citizens. With close reference to Nicole in **play The Samaritan by John Lara**, write an essay to support this statement.

OPTIONAL **(20 marks)**

3. a) Drawing illustrations from Meja Mwangis "An Incident in the park" write an essay to discuss the problems of urbanization.

b) "*Betrayal pervades every level of the society."* Basing your illustrations on **play, *Parliament of Owls,*** by **Adipo Sidang**, write a composition to show the truth of this assertion.

c) "War has mostly negative outcomes" with illustration from novel "An artist of floating world" support this statement.

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KCSE INTER-COUNTY MOCKS

Cheti cha Kuhitimu Kisomo cha Sekondari (KCSE)

KCSE JOINT SERIES 1-2024

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 KWA MTAHINIWA:

a) *Andika jina lako, nambari ya usajili na tarehe katika karatasi ya majibu.*
b) *Karatasi hii ina maswali manne.*
c) *Jibu maswali mawili pekee. Kila swali lina alama ishirini.*
d) *Swali la kwanza ni la lazima.*
e) *Chagua swali lingine lolote moja kutoka yale matatu yaliyosalia.*
f) *Majibu yote yaandikwe katika karatasi ya majibu uliyopewa.*

Sehemu hii imehifadhiwa kwa matumizi ya mtahini pekee.

SWALI	1	2	3	4
UPEO	20	20	20	20
ALAMA				

UPEO	40
ALAMA ZA MTAHINIWA	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

MASWALI

1. Wanakijiji katika mtaa wa Nadhifu wanakumbwa na tatizo la taka zilizorundikana katika mazingira yao. Wanamazingira walikutana kuzungumzia swala hili. Andika kumbukumbu zilizotokana na mkutano huo**.** **(al 20)**

2. Ajali nyingi za barabarani husababishwa na makosa ya kibinadamu. Jadili. **(al 20)**

3. Andika kisa kitakachoafiki methali ifuatayo**:** **(al 20)**

Bura yangu sibadili kwa rehani.

4. Andika insha itakayokamilika kwa maneno yafuatayo; **(al 20)**

…Mungu mikononi mwako tunazikabidhi roho zetu.

For Marking Schemes Contact 0746 222 000 / 0742 999 000

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

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	15	
2	15	
3	40	
4	10	
Jumla	80	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

1. UFAHAMU – (ALAMA 15)

Soma taarifa ifuatayo kisha ujibu maswali

Takwimu zinaonyesha kuwa punda hutumika kubeba mizigo mizito mashinani, hususan katika maeneo ambayo miundo misingi ya barabara ni duni. Aidha, wasimamizi wa vichinjio vya punda wamelaumiwa kwa kuhatarisha maisha ya wanyama hawa kupitia biashara ya viungo vyao, huku wezi wa punda wakivuna sehemu ambayo hawakupanda.

Hata hivyo, kwa mama Teresia Mumbi, mkulima kutoka kijiji cha Kwa Njaga, Kaunti ya Nyandarua, punda wamekuwa ni ofisi yake. Anasema ukulima na uchukuzi kwa Wakenya wengi unategemea miundo msingi bora ya usafiri, ndio maana wakulima wengi mashinani wamekuwa wakilalamika kuwa wanapata hasara mazao yao yanapochelewa kufika sokoni kwa wakati. Kulingana naye ni jambo ambalo limewafanya kuwekeza kwenye mradi wa kufanya biashara ya punda ambapo mara nyingi huuzwa kati ya Sh20,000-25,000. Ingawa wakulima wengi kutoka Kaunti ya Nyandarua wanakuza viazi, maharagwe, mihogo na mahindi, Mumbi anasema kuwa hajutii kujikita kwenye mradi huu, ambao umetengeneza nafasi nyingi za ajira na kurahisisha usafiri.

Kulingana naye, anaungama kuwa endapo wakulima watawapatia punda mafundisho mwafaka jinsi ya kuishi na mifugo, wanaweza kukaa na wanyama wengine kama vile kondoo, mbuzi au ng'ombe na hata kuwapatia ulinzi. Wakulima wamekuja na mbinu mwafaka ya kufanikisha ufugaji kwa kukata kwato, kuwapatia chanjo na kuwatengenezea mazingira mazuri.

Isitoshe punda ni wanyama ambao wanaweza kujitafutia malisho na kudumu katika mazingira magumu yenye joto au baridi kali. Kwa upande mwingine wakulima wengi kutoka Nyandarua ambao wanategemea punda, wamekuja na mbinu ya kuboresha ufugaji wa punda baada ya kupokea mafunzo kutoka kwa wataalam na wanaharakati wanaotetea haki za punda.

Kwanza punda wanafaa kubebeshwa mizigo kulingana na uwezo wao. Aidha wanahitaji wakati wa kutosha kupata mapumziko.

Mumbi amefaulu katika ufugaji wa punda kwa sababu yeye huhakikisha kuwa punda wake wanapata maji ya kutosha wakati wowote ambao huwa hawafanyi kazi. Vilevile, amewatengenezea punda wake watatu banda nzuri kuwakinga dhidi ya mvua, baridi kali au jua. Mumbi anasema kuwa kila siku akiamka huhakikisha kuwa punda wake wamelishwa vyema na kuwapangusa kwato kabla ya kurejelea shughuli za siku kusafirisha mazao kutoka shambani hadi sokoni. Baada ya kufanya vibarua sehemu mbalimbali miaka ya awali, Mumbi aliamua kutafuta mbinu mbadala ya kujiendeleza kimaisha ambapo alinunua mtoto wa punda na kumtunza hadi akakomaa.

Hapo alianza kutengeneza hela kwa kufanya vibarua kijijini kama vile kubeba mizigo, au kukodisha kwa wafanyabiashara wengine na hata kubebea maji kutoka mtoni. Ikumbukwe kuwa kijiji cha Kwa Njaga kina miundo msingi duni ambapo miinuko na mabonde hufanya nyingi ya sehemu zisiweze kupitika hasa wakati wa mvua nyingi. Alieleza kuwa imekuwa ni nafuu kwa vijana wengi na akina mama ambao walikuwa wamezoea kushinda mtaani, kwa sababu punda wametoa fursa ya kutengeneza nafasi nyingi za kazi.

Barabara nyingi katika Kaunti ya Nyandarua hazipitiki, jambo ambalo limekuwa likiwafanya wakulima kukadiria hasara kubwa mazao yao yanapochelewa kufika sokoni. Changamoto za wakulima wa matunda na mboga zilikuwa nyingi huku wengi wao wakikosa kujua namna ya kuhifadhi mazao ya shambani mara tu baada ya kuvuna. Hapo awali watu wengi hawakuwa

wakizingatia maslahi ya punda kama vile kuwaacha wajitafutie vyakula na kuishi kwenye mazingira duni.

Beth Kuria ambaye ni mwekahazina kutoka Shirika la Muungano wa Wamiliki wa Punda nchini (ADOK), anasema kuwa pana haja ya serikali kutilia mkazo suala la kuwahifadhi punda kwenye mazingira mazuri. Wafugaji wengi wameshindwa kuwapatia punda malazi mazuri na lishe bora, jambo ambalo amelitaja kama kuwakosesha haki zao za kimsingi.

Kama wanyama wengine punda wanahitaji kupatiwa lishe nzuri na chanjo kila mara, hii ikiwa ni pamoja na kuwafanyia huduma za kukata kwato na kuwawekea matandiko mazuri wakati wa kubebea mizigo ili ngozi zao zisije zikachujuka. Aliongezea kuwa akina mama wengi wanaokaa mashambani wanategemea punda kufanyia kila kitu kama vile kusafirisha viazi hadi sokoni na hata kuwabebea maji kutoka mtoni.

MASWALI

a) Ipe tarifa uliyoisoma anwani mwafaka **(alama 1)**

……

b) Eleza mambo ambayo yamekuwa yakiwahasisri wakulima katika Kaunti ya Nyandarua.

(alama 2)

……

……

……

c) Eleza njia nne zinazoweza kutumiwa kufanikisha ufugaji wa punda **(alama 4)**

……

……

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……

……

d) Eleza faida nne zinazotokana na ufugaji wa punda **(alama 4)**

……

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……

……

e) Kwa nini ufugaji wa punda umekuwa rahisi ikilinganishwa na mifugo wengine **(alama 2)**

……

……

……

f) Eleza maana ya mafungu yafuatayo kama yalivyotumiwa katika kifungu **(alama 2)**

i. Punda wamekuwa ni ofisi yake…….....

ii. Kutengeneza hela…….…….....

SEHEMU B: UFUPISHO (ALAMA 15)

Soma taarifa ifuatayo kisha ujibu maswali

Lugha huundwa kwa sauti ambazo huunganishwa ili kuunda neno au sehemu ya neno, kisha maneno huungana kuunda miundo mikubwa zaidi yenye maana kama vile virai, vishazi, sentensi na aya. Kwa mfano: Mkulima (N) + Anavuna(T) = Mkulima anavuna. Hata hivyo, muungano huu wa maneno huwa haufanyiki shaghala baghala maadamu kuna kanuni na sheria zinazodhibiti mfuatano wa kila kipashio.Katika kila lugha, kuna kanuni maalum zinazodhibiti ama mfuatano wa sauti, mofimu, maneno au hata sentensi.

Kwa mintarafu hii, ndiposa tunahoji kuwa lugha ya binadamu ni mfumo wenye kanuni, sheria na taratibu mahsusi ambazo endapo zitakiukwa, hakutakuwa na utimilifu wa lugha husika. Wanajamii au ukipenda watumiaji wa lugha fulani huweza kuelewana kupitia kanuni hizo maalum zinazodhibiti mpangilio wa viunzi vya lugha husika.

Lugha ni mfumo wa sauti nasibu**8**. Kiambajengo hiki kina maana kwamba hakuna uhusiano wa moja kwa moja kati ya neno na kitu chenyewe kinachotumika katika ujenzi na matumizi mengine (maana na kirejelewa). Inamaanisha vilevile kuwa ishara na maumbo ya kiisimu hayana uhusiano wowote au mfanano wowote na maana ambazo tunayapatia. Kwa mfano, neno ‘jiwe’ hakuna watu waliokaa na kusema kuanzia leo hili litaitwa jiwe. Aidha, hakuna uhusiano wowote kati ya neno “jiwe” na umbo linalorejelewa, ila uhusiano wake ni wa kinasibu tu na hutofautiana kutoka lugha moja hadi nyingine.

Lugha huhusishwa na mwanadamu. Lugha ni chombo cha mawasiliano kinachotumika miongoni mwa binadamu pekee ambapo hakuna kiumbe mwingine ambaye si binadamu mwenye uwezo wa kutumia lugha wala kuzungumza. Kwa kuzingatia hoja hii, ni bayana kuwa kuna sifa maalum za lugha ya binadamu ambazo hazipatikani kwa kiumbe mwingine yeyote yule isipokuwa

mwanadamu. Japo viumbe wasio binadamu mathalan wanyama na nyuni wanaweza kuwasiliana, mawasiliano yao huwa ni ya sauti au ishara ambazo kimsingi si lugha.

Aidha, mawasiliano haya hudhibitiwa na hisia kama vile uchungu, hofu, njaa,hamu au ishara za kutoa taarifa fulani. Isitoshe, binadamu ana uwezo wa kujifunza lugha mbalimbali na kuitumia katika mazingira yake jambo ambalo wanyama, nyuni na viumbe wengine hawawezi. Kwa mfano, ukimchukua mbwa wa Japan na kumleta Kenya atabweka kwa njia ile ile ya mbwa wa Kenya kueleza shida au ishara husika.

MASWALI

a) Kwa maneno yasiozidi 60 fupisha aya mbili za mwanzo (alama 7, moja ya utiririko)

Majaribio

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Jibu

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b) Kwa maneno 70 fafanua sifa za lugha zinavyojitokeza katika aya ya tatu hadi tano.

(alama 8, moja ya utiririko)

Majaribio

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Jibu

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3. SEHEMU C MATUMIZI YA LUGHA (ALAMA 40)

a) Andika neno lenye sauti sauti zifuatazo: sauti mwambatano ya ufizi, irabu ya chini, nazali ya ufizi, irabu ya mbele juu **(alama 2)**

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b) Kuna tofauti gani kati ya kiimbo na shadda **(alama 2)**

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c) Huku ukitoa mifano, eleza maana za maneno yafuatayo **(alama 3)**

viambishi

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mofimu

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d) Tunga sentensi moja inayodhihirisha kwamba neno panda ni kitawe. **(alama 2)**

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e) Tunga sentensi moja kuonyesha matumizi ya KU kama kikanushi cha wakati uliopita na nafsi ya pili umoja **(alama 2)**

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f) Tunga sentensi moja iliyo na shamirisho kipozi, kitondo na ala **(alama 3)**

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g) Tunga sentensi kusisitiza katika wingi ‘kiti’ kikiwa mbali kidogo. **(alama 2)**

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h) Changanua sentesi ifuatayo kwa kutumia jedwali **(alama 4)**

Mwanafunzi aliyeadhibiwa jana ameomba msamaha lakini mwalimu mkuu hajamsamehea

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i) Eleza uamilifu wa vishazi tegemezi katika sentensi zifuatazo: **(alama 3)**

i.Aliyepotea amepatikana

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ii. Mwanafunzi aliyepotea amepatikana

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iii. Tulicheza alivyotufundisha

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……

j) Andika kwa wingi **(alama 1)**

Mtanashati ameibuka mshindi

……..

k. Ainisha vitenzi katika sentensi ifuatayo **(alama 2)**

Huyu ndiye mwalimu anayejua kukimbia kwa kasi

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l) Weka nomino hizi katika ngeli zake **(alama 2)**

i. vilembwe

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……

ii. maghani

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m) Yakinisha: Usingalitia bidii usingalipita mtihani. **(alama 2)**

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n) Andika katika usemi wa taarifa: ‘Nataka ufikirie sana juu ya maisha yako ya ndoa. Sitaki uishi maisha yasiyo na mweleko.’ Babu alinishauri. **(alama 3)**

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o) Baya ni kwa zuri kama vile …….. ni kwa tamu na bovu ni kwa ……...

(alama 2)

p) Tunga sentensi kudhihirisha matumizi ya viakifishi vifuatavyo **(alama 3)**

i. ritifaa

ii. kinyota

iii. parandesi

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q) Eleza maana ya **(alama 2)**

i. kuzamia lulu

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ii. Dudu liumalo silipe kidole

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4. SEHEMU D: ISIMU JAMII (ALAMA 10)

a) Huku ukitoa mifano mwafaka fafanua kaida nne katika jamii ambazo matumizi ya lugha hutegemea **(alama 4)**

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b) Fafanua majukumu ya Kiswahili kama: **(alama 6)**

i) Lugha ya kitaifa

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ii) Lugha ya kimataifa

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KCSE INTER-COUNTY MOCKS

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102/3

KISWAHILI

KARATASI YA 3 (FASIHI)

MUDA: SAA 2½

JINA……

SHULE…… SAHIHI……

NAMBARI YA USAJILI…… MKONDO……

Cheti cha Kuhitimu Masomo ya Sekondari (KCSE)

MAAGIZO:

a) Andika jina lako na nambari yako ya mtihani katika nafasi ulizoachiwa hapo juu.
b) Tia sahihi yako kisha uandike tarehe ya mtihani katika nafasi ulizoachiwa hapo juu.
*c) Jibu maswali **manne** pekee.*
*d) Swali la **kwanza** ni la **lazima.***
e) Maswali hayo mengine matatu yachaguliwe kutoka sehemu nne zilizobaki; yaani; Riwaya, Tamthilia, Ushairi na Hadithi Fupi.
*f) Usijibu maswali **mawili** kutoka **sehemu moja**.*

KWA MATUMIZI YA MTAHINI PEKEE.

Swali	Upeo	Alama
1	20	
	20	
	20	
	20	
Jumla	80	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

1. SEHEMU A: FASIHI SIMULIZI (LAZIMA)

Soma utungo ufuatao kisha ujibu maswali yanayofuata

Katiechi Analia, Katiechi Analia
Chozi lausaliti undani wake
Undani ambao ameuficha kwa miaka na mikaka
Undani ambao japo anachelea kutangaza asije akaonekana apendaye chongo…
Itabidi kuutoa, kuumwaga mtama

Na kiini cha chozi hili ni kwamba imewadia
Imewadia siku ya siku kanisani kwenda,
Kujitia pingu
Kujitia pingu, pingu za aushi
Je, hakuyataka haya?
Hakupania yapakata kama mwanagenzi,
Apatakavyo malaika mikononi pake?
Kwani basi analovya, kidari kwa maji chumvi?
Shavu lake laini,kuwa kijivu kwa shaka?
Ama ni yano mapenzi yalomlemea?
Mapenzi alopalia kwa miaka na dahari?

Kipi kinokwinamisha,
Kwa tewengu kukubwaga?
Ama ni majukumu kuhofia mwenzetu?
Ni adha za ulezi?
Ni hofu ya kutelekezwa?
Jikoni kuachwa jukumu la kawaida?
Ama ni ugeni kwa nasaba uso asili unokuuguza?
Je, ni mazoea unochelea kuacha?
Ama ni uzito wa nanga ua huba?
Kipi, sema ewe mwenzangu, sema.

Nikahi ni sitara
Usumbufu kuepuka vipanga na mwewe
Ndoa huneemesha na jina kukupa utatukukuka kimwana
Shujaa ukapata wa kukulinda
Miliki ni hakikisho kutoka kwa dume hata katika mauko,
Penzi halali kupata, na warithi kuambulia,
Wa kiume kukufaa
Silie mwana silie,
Watutia simanzi
Waitia ndoa doa, nuksani kukuandamia.

Wavyele mpeni Baraka
Mashangazi mtemeeni mate
Viganjani kumiminia pumzi zenu za neema
Ndoa yake kutengenea
Maumbu acheni
Kulengwa na machozi
Mwamliza zaidi, unyonge kumtia
Baba mtu mshike kondooyo,
Mwongoze kidesturi, madhabahu karibia,
Mkabidhi mkweo, mwenzi wake wa maisha.

Ndiye takayekuwa fahali, simba atakuwa kikaida
Amri tatoa yeye, malkia kufuata,
Utashi wake tatimizwa, ndivyo sheria inenavyo
Bila yeye kutamka mtamba aandamwi na sahibu
Tampenda ewe kinda, tanyenyekea bila kulalama
Penzi talinda wewe, wengine sije paramia
Kukupoka mwamba wako!

Maswali

a. Ainisha utungo huu kimaudhui. **Alama 1**
b. Eleza sifa **tatu** za utungo huu. **Alama 3**
c. Chambua mitindo katika utungo huu. **Alama 4**
d. Unanuia kuwasilisha utungo huu jukwani, tathmini vipengele **sita** ambavyo utavizingatia ili kufanikisha mawsilisho yako. **Alama 6**
e. Eleza manufaa **manne** ya ndoa kutokana na wimbo huu. **Alama 4**
f. Jamii ina matarajio yepi kuhusu wanandoa? **Alama 2**

SEHEMU B: HADITHI FUPI

2. Ahadi ni Deni-Rayya Timammy

a. `Maudhui ni kipengele muhimu katika kazi ya kisanii.' Thibitisha dai hili kwa kurejelea maudhui yafuatayo katika hadithi,***Ahadi ni Deni***. **Alama 10**
i. Uwajibikaji
ii. Nafasi ya wanawake

b. `` Ni vigumu kwa binadamu kuungama jambo kama hili ila kwa sasa naona ndiyo njia ya pekee ya kuinusuru nafsi yangu.''
i. Weka maneno haya katika muktadha. **Alama 4**
ii. Wahusika wengi katika hadithi ***Toba ya Kalia*** ni wasaliti. Eleza kikamilifu. **Alama 6**

Au

3. Kila Mchezea Wembe

``Watu wanaomboleza nikaja na fujo zangu bila kujali wala kubali na kuvuruga shughuli maziarani.''

a. Eleza muktadha wa maneno haya. **Alama 4**

b. Tathmini athari **kumi na mbili** za unywaji pombe kwa kurejela hadithi hii. **Alama 12**

c. Kwa kutoa hoja **nne** hadithini, eleza umuhimu wa mnenaji. **Alama 4**

Sehemu C : Riwaya ***Nguu za Jadi***

4. a. Eleza umuhimu wa Mashauri katika kujenga audhui riwayani**.** **(ala 10)**

b. Fafanua nafasi ya Cheiya katika kujenga maudhui_ **(ala 10)**

5. *"Ubao huu utakuwa msaidizi wangu wapili."*

a. Fafanua muktadha wa dondoo hili **(aL4)**

b. Tambua sifa mbili za msemaji wa maneno haya kulmgana na dondoo **(aL6)**

c. Fafanua umuhimu wa mandhari ya dondoo hili katika kujenga maudhui. **(ala 10)**

SEHEMU: TAMTHILIA

BEMBEA YA MAISHA

6. ''Dunia ikijua anakusaidia jikoni itasema unashusha hadhi yake na kwa mizani ya jamii utakuwa unajivulia nguo. ''

a. Eleza muktadha wa maneno haya. **Alama 4**

b. Tambua tamathali **mbili** za usemi katika dondoo. **Alama 2**

c. Fafanua sifa zozote **nne** za msemaji wa maneno haya. **Alama 4**

d. Tathmini umuhimu wa **mandhari** kwa kurejelea nyumbani kwa Sara. **Alama 10**

7. '' Kila mbegu ipandwayo haina budi kuzaa na izaapo mazao yake huvunwa. Mtu huitakasa sahani akijua itamfaa tena.''

a. Eleza muktadha wa maneno haya. **Alama 4**

b. Fafanua umuhimu wa msemaji katika kujenga ploti. **Alama 4**

c. Tambua mbinu **moja** ya kimtindo katika dondoo. **Alama 2**

d. Kwa kutoa mifano **kumi** eleza namna mbinu iliyotambuliwa katika sehemu (c) imetumiwa kuendeleza tamthilia hii. **Alama 10**

8. <u>SEHEMU E: SHAIRI</u>

<u>Soma shairi lifuatalo kisha ujibu maswali yanayofuata.</u>

Ulikuwa wanipenda, imekuwaje?
Leo wanipondaponda, nitaponaje?
Nimefika njia panda, nilifikaje?
Wanitupa kama ganda, nitahisije?

Nilikuwa mtu kwako, nitupikeje?
Wanigeuza makoko, nieleweje?
Umenita mbwakoko, niitikeje?
Wanipasha unguliko, nipozekeje?

Jamili maungo yangu, wanibezaje?
Kanijaalia Mungu, wapuuzaje?
Kwako kuwa dungudungu, nilianzaje?
Kuiiza sura yangu, umeanzaje?

Nilikupenda kwa dhati, nizidisheje?
Nilitakalo sipati, nikupendeje?
Huba ziso hatihati, zimekufaje?
Mapenzi nazo laity, pamwe yaweje?

Majuzi ukinienzi, unipembeje?
Yakowe mangi mapenzi, yameishaje?
Na hina yangu simanzi, itaishaje?
Nitajitia kitanzi, hata iweje?

Maswali

a. Fafanua kwa kutoa hoja **nne** kutoka kwenye shairi sababu za nafsineni kutaka kujitia kitanzi. **Alama 4**

b. Eleza muundo wa shairi hili. **Alama 4**

c. Fafanua namna mtunzi ametumia uhuru wa kishairi kuwaslisha ujumbe wake**.** **Alama 3**

d. Andika ubeti wa **tatu** kwa lugha nathari. **Alama 4**

e. Eleza aina **tatu** za urudiaji katika shairi hili. **Alama 3**

f. Fafanua toni ya shairi hili. **Alama 1**

g. Bainisha nafsineni katika shairi hili. **Alama 1**

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

443/1 Agriculture (Theory) Paper 1

Time: 2 Hours

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIADATES

1. Write your name, admission number and class
*2. This paper contains **three** sections*
*3. Answer all question in section **A** and **B***
*4. In section **C** answer any two questions*

For examiner's use only

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE SCORE
A	1 -15	30	
B	16-19	20	
C		20	
		20	
Total score		90	

SECTION A 30 MARKS

Answer all question

1. Name **two** physical agents of weathering **(1 marks)**

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2. Outline **three** methods of breaking seed dormancy **(1 ½ marks)**

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3. List **two** signs shown by crops when they are attacked by nematodes **(1 marks)**

……

……

4. Distinguish between soil structure and soil texture **(2 marks)**

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5. State any **three** examples of working capital **(1 ½ marks)**

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6. What is Land reform: **(1 mark)**

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(b) State any **four** methods of land reform **(2 marks)**

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7. Mention **four** ways in which losses may be incurred during hay making. **(2marks)**

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8. Give **two** precautions taken to ensure good crop establishment during planting. **(1mark)**

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9.(a) Define inventory records. **(1mark)**

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b). State **four** pieces of information that is contained in health records. **(2marks)**

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10)a. List **four** problems associated with nomadic pastoralism in Kenya. **(2marks)**

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……

(b) Name **four** factors of production in agriculture. **(2marks)**

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11. List **two** farming practices that can be carried out to increase the amount of light harnessed by crops. **(2marks)**

……

……

12. State **four** reasons why land is prepared before planting **(2marks)**

……

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……

13. Give **one** reason in each case why the following tertiary operations are important**. (3marks)**

i) Ridging

……

……

ii) Rolling

……

……

iii) Leveling

……

……

14. Distinguish the following terms as used in pasture management. **(2marks)**

a. Intensity of defoliation

……

……

b. Frequency of defoliation

……

……

15. What does the term 'close season' in crop production mean? **(1mark)**

……

……

SECTION B

Answer All Question

16. Use the following crops to answer the questions that follow.



D



E

a) Name the crops labelled D and E above. **(2mark)**

D……...

E……...

b) Why is crop D rarely destroyed by pests in the stores? **(1mark)**

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……

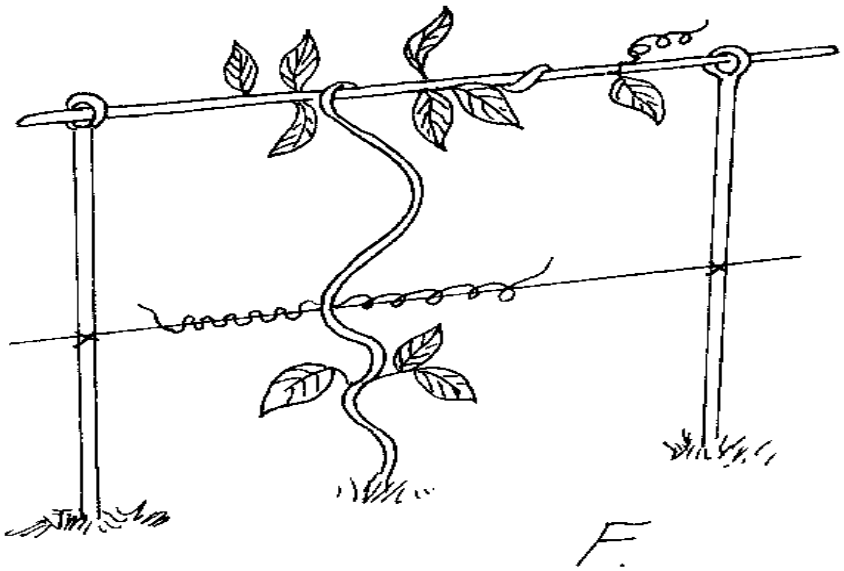
c) Name any **two** diseases that affect crop E. **(2marks)**

……

……

……

17. The diagram F, below illustrates a method of training in crops.



F.

i) Identify the method shown in F above. **(1mark)**

……

ii) Name **two** other methods used in training in crop production. **(1mark)**

……

……

iii) State **two** advantages of training in crop production. **(2mark)**

……

……

iv) List **two** crops that require training. **(1mark)**

……

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18.a) Describe the procedure which should be followed in spraying a crop of tomatoes using a fungicide in powder form, water and knapsack sprayer. **(3 marks)**

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(b) State **two** safety measures that should be taken while spraying the crop with fungicide**(2 mk**

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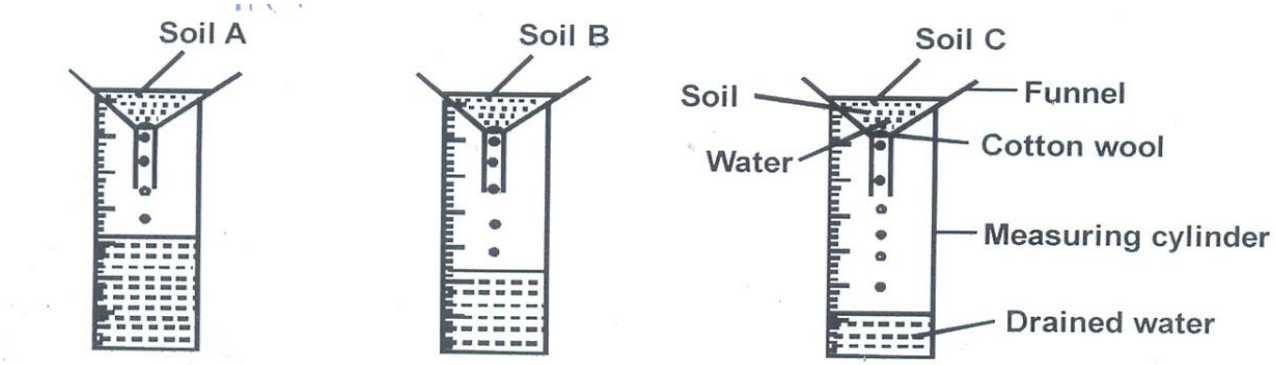
……

19. The diagram below illustrate an experiment on soil



a) State the aim of the experiment (1 mark)

……

……

b) If the volume of water illustrated in the measuring cylinder was observed after one hour. Identify the soil sample A and B

Soil **A**……..**(1 mark)**

Soil **B**…… **(1 mark)**

c) State **two** ways in which the soil structure of the sample labelled c above can be improved.

(2 marks)

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SECTION C 40 MARKS

Answer Only Two Questions

20. a) Giving one example in each case, identify **three** classes of crop diseases. **(6marks)**

b) Describe the physical measures of disease control in crops. **(10marks)**

c) Identify the factors affecting the efficiency of pesticides **(4marks)**

21).Describe the production of tomatoes (Lycoperiscon esculentum) under the following subheadings.

(a) Ecological requirements **(4marks)**

(b) Nursery establishment **(4marks)**

(c) Transplanting **(4marks)**

(d) Seed bed preparation **(4marks)**

(e) Field management practices **(4marks)**

22. a) State and explain **five** agricultural services available to farmers. **(10marks)**

b) Explain the ways in which labour efficiency can be increased in the farm **(5marks)**

c) State any **five** measures which are taken to minimize water pollution In the farm. **(5marks)**

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

443/2 Agriculture (Theory) Paper 2

Time: 2 Hours

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES.

a) *Write your name & Index Number in the spaces provided.*

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 I Section **A** and **B***

e) *Answer two question from Section **C.***

FOR EXAMINERS USE ONLY

SECTION	MAXIMUM SCORE	CANDIDATE SCORE
A	30	
B	20	
C	40	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

SECTION A (30MKS)

Answer ALL the Questions in this section

1. Give the meaning of the following terms as used in livestock health. **(1mk)**

a) Incubation period

……

……

b) Mortality rate.

……

……

2. State **four** physical characteristics of a dairy cow. **(2mks)**

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3. Name the **two** different types of rabbit houses. **(1mk)**

……

……

4. What is the role of a footbath in a poultry house? $(\frac{1}{2}\boldsymbol{mk})$

……

……

5. State **four** care and maintenance practices carried out on a tractor water cooling system. **(2mks)**

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6. State **four** factors that affect the digestibility of a feed. **(2mks)**

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7. Give **four** factors that should be considered when siting a beehive on the farm. **(2mks)**

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……

8. Name the complementary tool for each of the tools named below: **(2mks)**

a) Trochar

……..

b) Hand drill……...

c) Elastrator……

d) Bull ring…….

9. State **four** advantages of embryo transplant when breeding livestock. **(2mks)**

……

……

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……

10. Give **two** reasons why sows may eat piglets immediately after farrowing. **(1mk)**

……

……

……

11. State **three** reasons for docking in rams**.** $(1\frac{1}{2}\boldsymbol{mks})$

……

……

……

12. Name **four** components of a building truss. **(2mks)**

……

……

……

……

13. Differentiate between **strategic** and **tactical** treatment as used in the control of endoparasites. **(1mk)**

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14. Name **four** diseases in poultry that are controlled by vaccination. **(2mks)**

……

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……

15. List **four** vices that may be developed by birds kept under total confinement. **(2mks)**

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16. Give **three** reasons for steaming up an in-calf heifer**.** $(1\frac{1}{2}\boldsymbol{mks})$

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……

……

17. State **four** factors that influence the respiration rate in livestock**.** **(2mks)**

……

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18. Name **three** dual purpose breeds of sheep**.** $(1\frac{1}{2}\boldsymbol{mks})$

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19. Give **two** reasons why proper nutrition is important in livestock health. **(1mk)**

……

……

……

SECTION B (20MARKS)

20. The diagrams below illustrate ectoparasites.Study them and answer the questions that follow.



A



B

a) Identify the parasites labelled A and B. **(1mk)**

A……

B……

b) Name the livestock affected by the parasite labelled A. **(1mk)**

……

c) State **two** harmful effects of parasites A and B in livestock production. **(2mks)**

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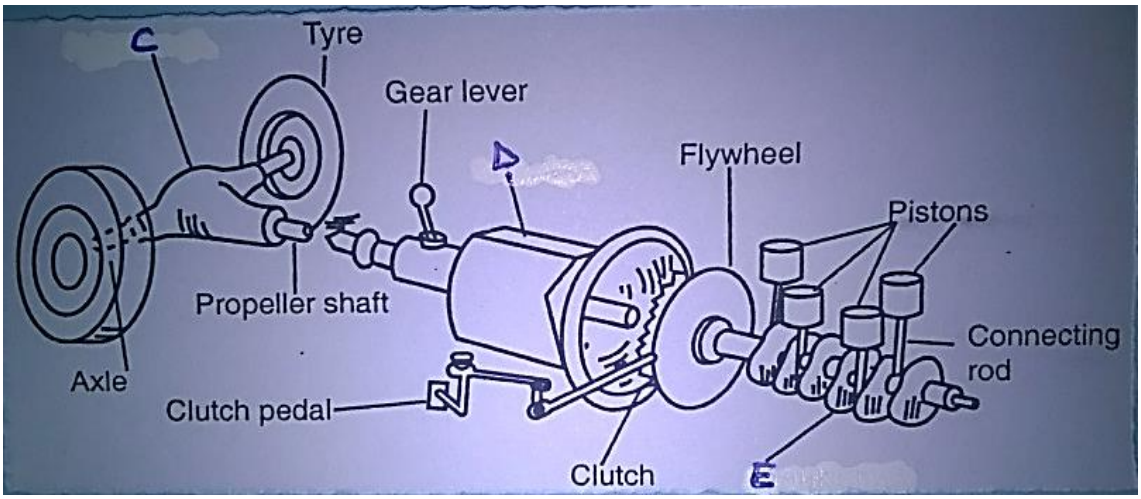
……

21. Below is a diagram of the power transmission system of a tractor engine. Study it and answer the questions that follow.



a) Name the parts labelled C, D and E. **(3mks)**

C……

D……

E……

b) State the functions of parts C, D and E. **(3mks)**

C……

D……

E……

22. a) Outline the procedure of castrating a male piglet**.** **(4mks)**

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b) At what age should the male piglet be castrated? **(1mk)**

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23. Study the tools below and answer the questions that follow.



F



G



H



I

a) Identify the tools labelled F, G, H and **I.** **(2mks)**

F……

G……

H……

I……..

b) Give the uses of each of the tools labelled H and I. **(2mks)**

H……

I……..…

c) Name the part of the animal where tool F is placed when in use. **(1mk)**

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SECTION C (40MARKS)

24. a) Explain the management practices that a farmer should carry out to improve milk production in a low dairy herd. **(10mks)**

b) Describe the rearing of one day old chicks to 8 weeks. **(10mks)**

25. a) Describe coccidiosis disease under the following sub-headings:

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

ii. Pre-disposing factors. **(3mks)**

iii. Symptoms. **(4mks)**

iv. Control measures. **(2mks)**

b) Describe **five** parts of a piggery unit. **(10mks)**

26. a) Give **five** functions of water in livestock. **(5mks)**

b) State and explain **five** essentials of clean milk production. **(10mks)**

c) Give **five** operational differences between a disc pough and a mouldboard plough. **(5mks)**

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

565/1 Business Studies Paper 1

Time: 2 Hours

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES.

1. *Write your name, admission number and stream in the spaces provided above.*
2. *This paper consists of 25 questions. Check to ascertain that all pages are printed as indicated and that no question is missing.*
3. *Candidates should answer all questions in the spaces provided in English.*

FOR EXAMINERS 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												

Answer all questions in the spaces provided

1. Name four forms of economic integration**.** **(4 marks)**

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2. Outline four reasons that may lead to slow growth of entrepreneurship in Kenya**.** **(4 marks)**

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3. In the table given below, indicate using a tick whether each of the following factors influence demand or supply of a commodity**.** **(4 marks)**

	FACTOR	DEMAND	SUPPLY
a	Change in number of firms in the industry.		
b	Change in levels of income.		
c	Change in population.		
d	Change in cost of production.		

4. Joyce Pauline, a newly employed teacher, has joined Mwalimu Sacco in Kisumu. Outline four benefits she will get as a result of her membership**.** **(4 marks)**

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5. State four factors that should be considered when choosing a method of producing documents.

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6. List four types of terminals in transport**.** **(4 marks)**

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7. Outline four challenges that may be faced by a country whose population is largely made up of a young population**.** **(4 marks)**

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8. Highlight four reasons that make it necessary for a country to have a development plan. **(4 mks)**

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9. The table below contains levels of production and occupations under each level. Complete the table by writing the appropriate business activity at each level**.** **(4 marks)**

LEVEL	BUSINESS ACTIVITY	OCCUPATION
Primary	(a)……	Quarrying, fishing.
Secondary	(b)……	Flour milling, oil refining.
	(c)……..	Baking, textile making.
Tertiary	(d)……	Hairdressing, communication.

10. The balance sheet prepared Caldera Traders on 1st January, showed capital of Sh. 420,000. During the year ended 31st December 2022 it was found that:-

(a)Additional investment was Sh. 150,000.

(b)Drawings were Sh. 130,000.

(c)Profits realized by the business was Sh. 210,000.

Required.

Determine Caldera's capital on 31st December, 2022. **(4 marks)**

11. State four ways of differentiating products under monopolistic competition. **(4 marks)**

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12. Highlight four measures that may be put in place to control demand pull inflation. **(4 marks)**

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13. State the term given to each of the following forms of advertising. (3 marks)

	DESCRIPTION	TYPE OF ADVERTISING
a	Creates awareness of a product to potential clients about entry of the new product into the market.	
b	Promotes a particular brand of a product where the brand name features more prominently.	
c	Persuades customers to buy the product implying that the product is better than any other in the market.	

14. Highlight four ways through the government can ensure a clean environment**.** **(4 marks)**

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15. State four internal economies of scale that a firm may experience. **(4 marks)**

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16. Mazeras Traders had the following account balances as at 30th June, 2023.

	Sh.		**Sh.**
Cash at bank……	42,600		
Furniture…….	5,000		
Capital……..	90,000		
Purchases…….	46,000		
Sales……..…	40,000	Musa	
(debtor)……..…	2,650		
Advertising expense……..	400	Wakesho (creditor)……	1,400
Purchases returns……	600	Cash in hand……...	28,000
Sales returns……	350		
Drawings……	7,000		

Required.

Prepare Mazeras Traders trial balance as at 30th June, 2023**.** **(5 marks)**

17. Highlight four disadvantages to a customer who operates a fixed deposit account. **(4 marks)**

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18. Explain the entries on 5th and 9th in the two column cash book given below. **(4 marks)**

Date	Details	Folio	Cash	Bank		Date	Details	Folio	Cash	Bank
2023			Sh.	Sh.		2023			Sh.	Sh.
April 5	Balance		2,500			April 5	Balance			4,000
April 8	Sales		7,200			April 9	Bank	C1	6,300	
April 9	Cash	C1		6,300						

April 5th

(a)_____(1mark)

(b)_____(1 mark)

April 9th

(c)_____(2marks)

19. Outline four advantages of mail order businesses. **(4 marks)**

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20. Outline four circumstances under which the government may find it necessary to participate in business activities. **(4 marks)**

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21. Outline four reasons why it is necessary to have an interviewee appear personally before an interviewing panel during job interviews**.** **(4 marks)**

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22. Highlight four uses of a general journal. **(4 marks)**

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23. The table below contains descriptions of terms used in public finance. Write the appropriate term that best fits each description**.** **(4 marks)**

	DESCRIPTION	TERM USED
a	An indirect tax charged on certain goods and services produced for domestic use.	
b	A major part of government spending made to people who are not productive in economic sense.	
c	Is a tax paid to the government by individuals during sale and transfer of land and real estate.	
d	This is revenue that is borrowed to finance activities that do not generate any revenue, for example, recurrent expenditure.	

24. Highlight four characteristics of general insurance**.** **(4 marks)**

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25. State four types of spending that are considered when measuring the national income of a country using expenditure approach**.** **(4 marks)**

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THIS IS THE LAST PRINTED PAGE.

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

565/2 Business Studies Paper 2

Time: 2½ Hours

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

a) *Write your name and stream in the space provided above.*
b) *This paper consists of six questions*
c) *Answer any* ***five*** *questions of your choice in the spaces provided.*
d) *All questions carry equal marks*
e) *Students should answer the questions in English.*

For Examiner's Use Only

Question	Maximum Score	Candidate's Score
1	20	
2	20	
3	20	
4	20	
5	20	
6	20	
Total		

For Marking Schemes Contact 0746 222 000 / 0742 999 000

*Answer any **five** questions*

1. a. Explain **five** Office etiquette expected of office worker. **(10 marks)**

b. Describe **five** types of unemployment. **(10 marks)**

2. a. Explain **five** differences between sole proprietorship and public limited company. **(10 marks)**

b. The following trial balance was extracted from the books of Kiliku Enterprises on 31 December 2009.

Account Title	**Dr.**	**Cr.**
	Sh.	Sh.
Gross profit		440,000
Capital		1,530,000
Furniture	900,000	
Land	600,000	
Advertising	40,000	
Bank overdraft		100,000
Cash	340,000	
Stock	140,000	
Creditors		130,000
Debtors	180,000	
	2,200,000	**2,200,000**

Additional information:

i. The gross profit of Kiliku Enterprises average at a margin of 20%

ii. Stock on 1st January, 2009, was valued at Sh. 104,000.

Calculate:

i) Cost of sales

ii) The value of purchases

iii) Rate of stock turnover

iv) Working Capital.

v) Current ratio **(10 marks)**

3. a. Explain **five** factors that may limit the effectiveness of a warehouse. **(10 marks)**

b. Explain **five** reasons for maintaining books of original entry. **(10 marks)**

4. a. Explain **five** factors that Siaya county government may consider before incurring any expenditure. **(10 marks)**

b. Explain **five** reasons why per capita income is not a good indicator of standards of living. **(10 marks)**

5. a. Explain **five** benefits that Kenya may enjoy by being a member of African Development Bank (AfDB). **(10 marks)**

b. Explain **five** benefits that an organisation may enjoy by preparing a business plan. **(10 marks)**

6. a. Explain **five** reasons that accounts for the continued use of handcarts as a means of transport in Kenya. **(10 marks)**

b, Baraka started a business on 1st January 2023 with sh.15,000 in cash and sh. 130,000 in bank. The following transactions took place during the month:

January 2023-

2 Cash purchases sh, 70,000

4 Paid rent sh. 10,000 in cash

10 Cash sales paid directly into the bank sh. 64,000

13 Deposited sh.50,000 into the bank from cash till

17 Paid wages in cash sh.4,000

19. Bought furniture for sh.36,000 paying sh.27,000 by cheque and the balance was to be paid later

20 Received sh.16,000 cash from a customer

23 Bought goods for sh. 190.000 by cheque

28 Received a loan of sh.210,000 from Maria in cash

30 Deposited all cash into the bank except sh.8,000

Required; Prepare a single column cash book duly balanced. **(10 marks)**

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

231/1 Biology (Theory) Paper 1

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 in the spaces provided above.*

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

d) *All workings **MUST** be clearly shown where necessary.*

FOR EXAMINERS USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATES SCORE
1 – 32	80	

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

1. State the functions of the following points of a light microscope.

(a) Diaphragm **(1mk)**

……

(b) Condenser **(1mk)**

……

2. State the functions of the following organelles.

(a) Nucleolus **(1mk)**

……

(b) Ribosomes **(1mk)**

……

3. The reaction represented by the equation below occurs in the body.

Hydrogen peroxide $\xrightarrow{\text{Enzyme Y}}$ Oxygen + Water

(a) Name enzyme Y. **(1mk)**

……

(b) Name an organ in the body where the reaction occurs. **(1mk)**

……

(c) What is the significance of the reaction **(1mk)**

……

……

4. (a) Name two disorders in man that occur through gene substitution **(2mks)**

……

……

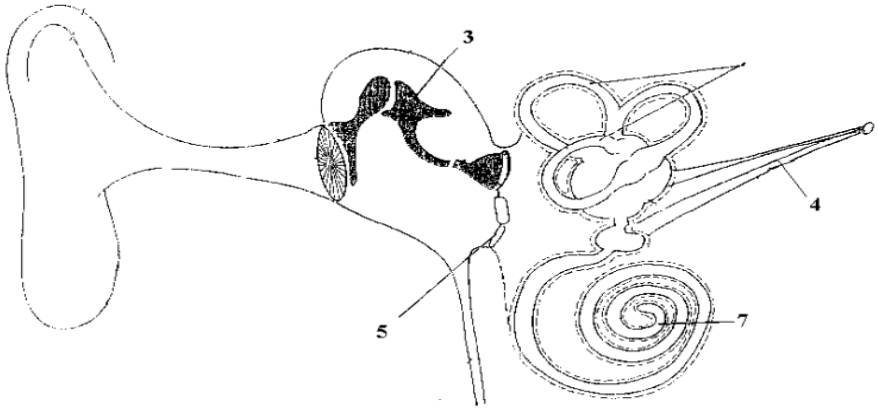
……

(b) Give two advantages of polyploidy in plants. **(2mks)**

……

……

5. The diagram below shows the human ear.



a). Name the structures labeled 3, 4 **(2mrks)**

……

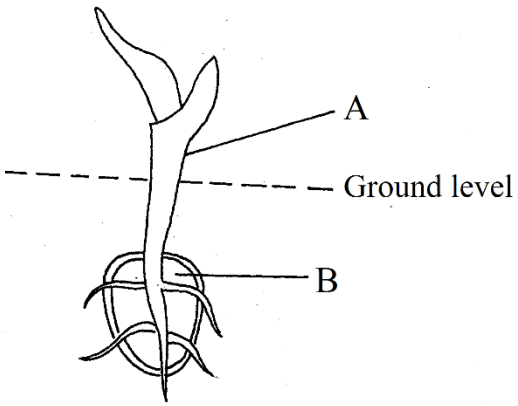
……

b).*State* the function of the parts labeled 5 and 7. **(2mrks)**

……

……

6. The diagram below represents a maize seedling



(a) (i) Name the type of germination exhibited by maize. **(1mk)**

……

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

……

……

(b) State the functions of the parts labelled A and B. **(2mk)**

A……

B……

7. (a) Explain how the following factors control population.

(i) Predation **(1mk)**

……

……

(ii) Competition **(1mk)**

……

……

(iii) Parasitism **(1mk)**

……

……

(b) A cat was used to control the population of rats.

(i) What term is used to refer to this method. **(1mk)**

……

(ii) State one advantage of using the method you named in (i) above. **(1mk)**

……

……

8. State the role played by the following substance in digestion.

(i) Hydrochloric acid **(2mks)**

……

……

(ii) Bile salts **(2mks)**

……

……

9. The chemical equation below represent a reaction that occurs in cels.

$2C_{51}H_{98}O_6 + 145O_2 \longrightarrow 102CO_2 + 98H_2O$

(i) Calculate the respiratory quotient (RQ) **(2mks)**

……

……

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(ii) Identify the substrate used in the reaction. **(1mk)**

……

(iii) Give two reasons why the substrate you have identified in 9. (ii) above is not the not the main respiratory substrate. **(2mks)**

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10. Explain what happens in humans when the concentration of glucose in the blood decreases below normal level. **(4mks)**

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

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

……

……

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

……

……

13. Name support tissues in plants thickened with:

(a) Cellulose **(1mk)**

……

(b) Lignin **(1mk)**

……

14. Give the survival value of the following tropic responses

a). Geotropism **(1mrk)**

……

……

b). Haptotropism **(1mrk)**

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……

c). Chemotropism **(1mrk)**

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……

15. (a) What are Analogous structures? **(1mk)**

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(b) Give two examples of Homologous structures **(2mks)**

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……

16. State three limitations of fossil records as an evidence of organic evolution **(3mks)**

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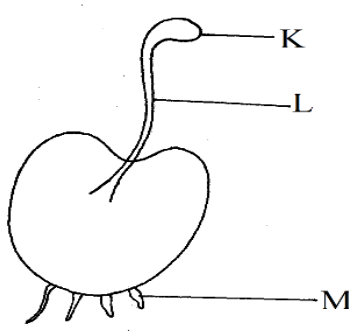
17. Study the diagram below and answer questions that follow



(a) State the division the organism belongs **(1mk)**

……

(b) Name the parts labelled K and L **(1mk)**

K.....

L.....

(**c)** What is the function of the part labelled M. **(1mk)**

M.....

18. Explain the role of the following hormones in reproduction.

(a) Progesterone **(2mks)**

……

……

(b) Oestrogen **(2mks)**

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……

19. State two factors that hinder self-pollination and fertilization. **(2mks)**

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20. A mango tree is known as mangifera Indica

(a) Identify two mistakes made in the writing of the name **(2mks)**

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(b) What is the scientific naming called? **(1mk)**

……

21. State three methods that could be used to determine the diet of wild animals in an ecosystem **(3mks)**

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22. State two ways in which chloroplasts are adapted for photosynthesis **(2mks)**

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23. Name joints formed between the:

(a) Humerus and scapula **(1mk)**

……

(b) Cranial bones **(1mk)**

……

24. State the role of the following chemicals in a test for non-reducing sugar.

(i) Hydrochloric acid **(1mk)**

……

(ii) Sodium hydrogen carbonate **(1mk)**

……

25. Name two chemical compounds that are protein in nature that regulate metabolic activities in the body **(2mks)**

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……

26. State three environmental factors that increase the rate of transpiration. **(3mks)**

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27. Carbon (II) oxide is a respiratory poison. Explain **(3mks)**

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KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

231/2 Biology (Theory) Paper 2

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.*
- *Answer **all** the questions in Section **A** in the spaces provided.*
- *In section **B** answer questions **6** (compulsory) and either question **7** or **8** in the spaces provided*

For Examiner's Use Only:

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A	1		
	2		
	3		
	4		
	5		
B	6		
	7		
	8		
	TOTAL	**80**	

*Answer **all** the questions in Section **A** in the spaces provided.*

1. In tomatoes hairy stem are produced;

a) By a dominant gen 'H' and hairless (smooth) stem by its recessive allele 'h'. Using a punnet square, work out the outcome between two heterozygous hairy stemmed plants.

(4mks)

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b) State the phenotypic ratio of the products **(lmk)**

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c) What will be the genotypes if the smooth variety is crossed with one of its parents? **(lmk)**

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……

d) State **two** ways in which. Genetics can be used in the field of Agriculture. **(2mks)**

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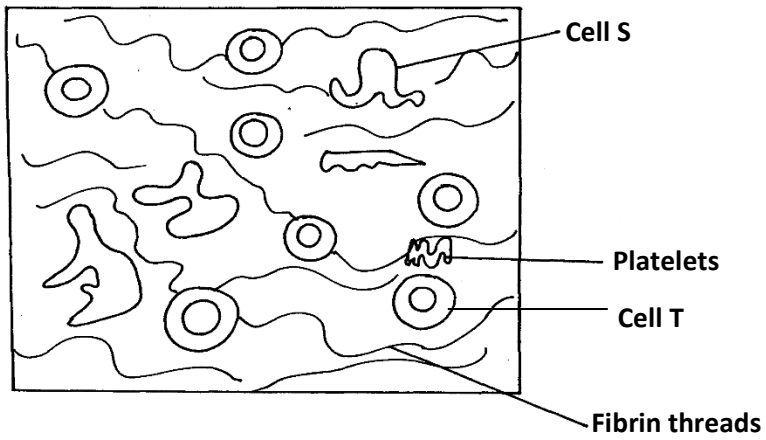
2. The diagram below represents a blood dotting formed in the body of a mammal



a. Name the cell labelled S and T. **(2mks)**

S……

T……

b. State the function of the cell labelled S in the body of a mammal. **(lmk)**

……

……

c. Describe how fibrin are formed. **(3mks)**

……

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d. Give **two** adaptations of cell labelled T to its functions. **(2mks)**

……

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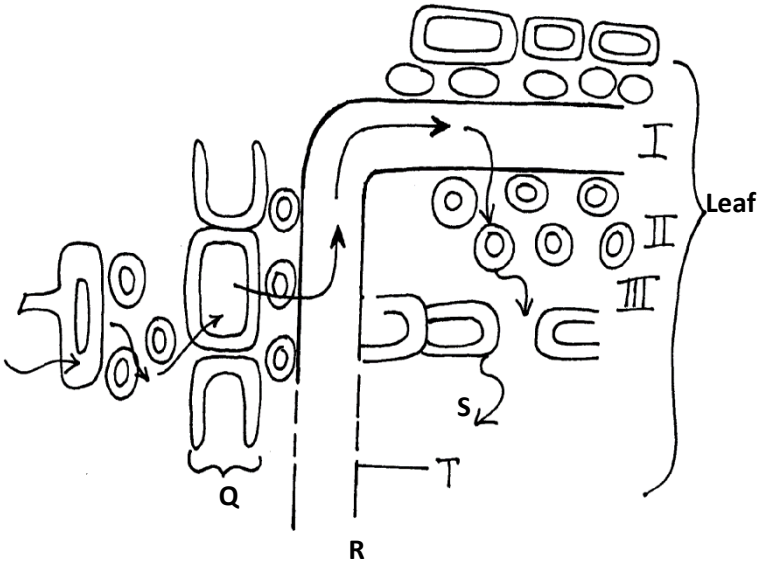
3. The diagram below represents a scheme diagram of movement of water from soil through leaves of a flowering plant into the atmosphere.



a. (i) Name parts labelled **Q R** and **S**. **(3mks)**

……

……

……

(ii) How is structure labelled **R** adapted to its functions. **(2mks)**

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b. On the diagram draw alternative site for water loss through the leaf. **(lmk)**

c. Identify process (iii). **(lmk)**

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d. How is structure T adapted to its function? **(lmk)**

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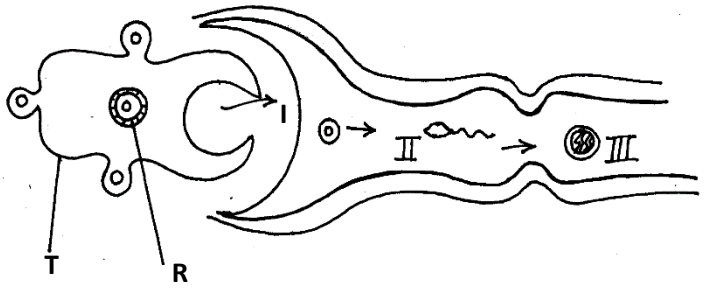
4. The diagram below shows some of the processes that take place in female reproductive system.



a. Name process labelled **I**_____**(lmk)**

b. Name the structure labelled **T** and **R**. **(2mks)**

T…….

R……

c. Identify hormones responsible for the formation of structuresT and R. **(2mks)**

……

……

d. Explain what leads to processes at II. **(3mks)**

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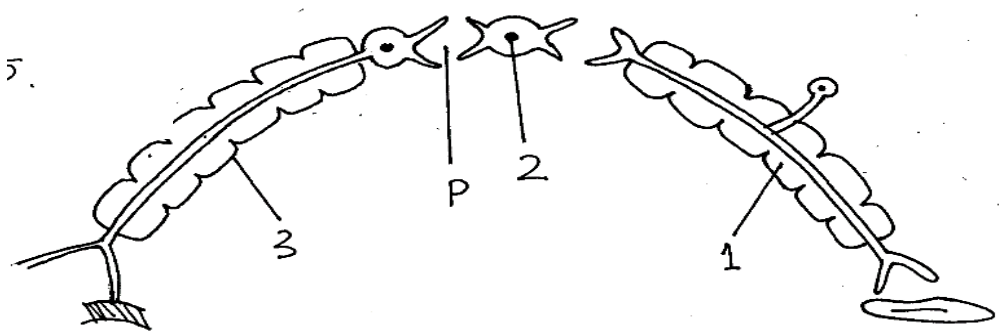
5. The diagram below shows three different types of neurones a long a reflex arc



a. Identify the neuron labelled 1, 2 and 3 **(3mks)**

1 ……

2 ……

3……

b. Using arrows show the direction of impulse transmission on the diagram. **(lmk)**

c. Name the part of the spinal cord where the cell bodies of neurone 2 and 3 are located. **(lmk)**

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d. Describe the transmission impulse across the part labelled P. **(3mks)**

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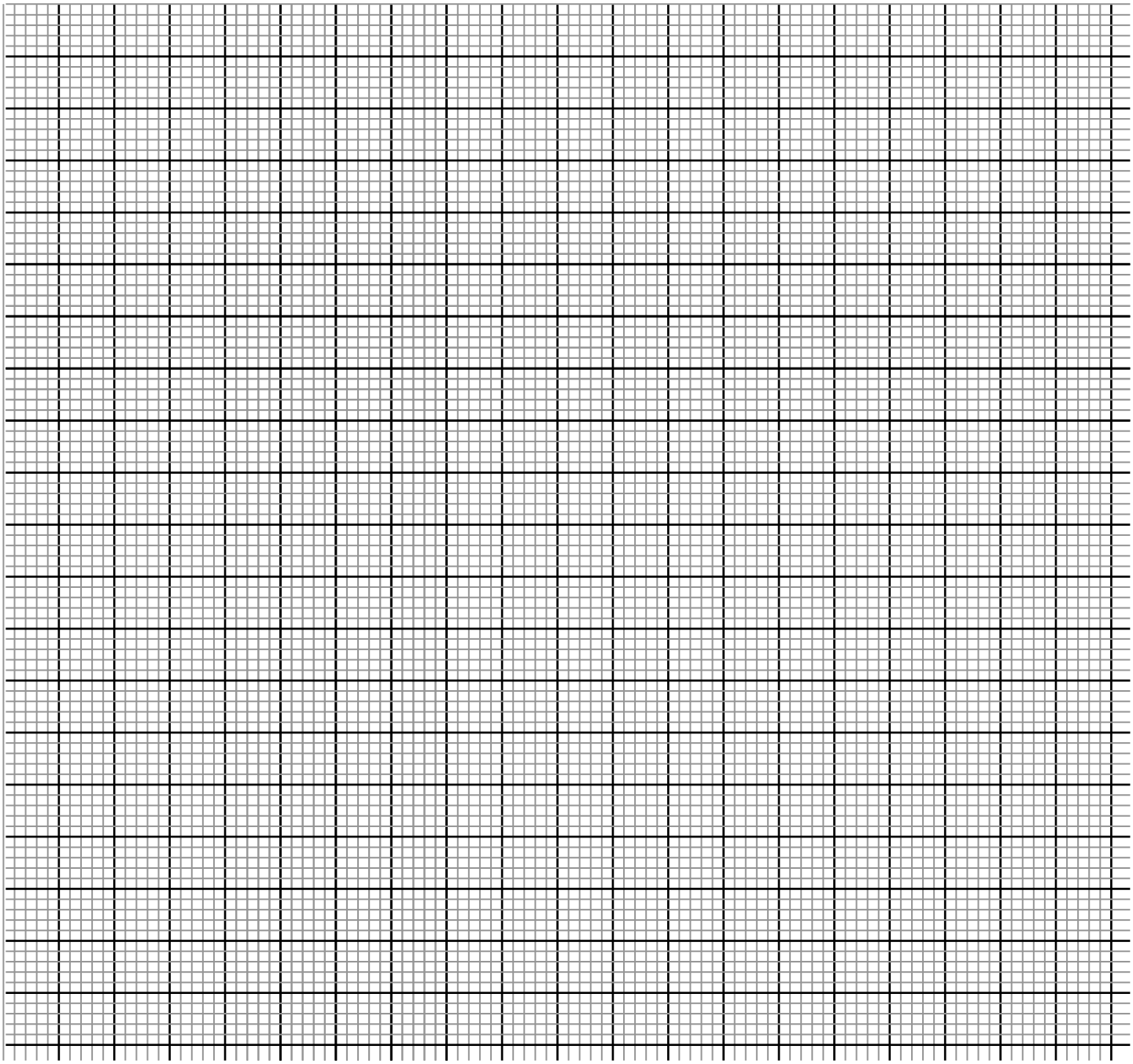
6. During germination and growth of a cereal, the dry weight of endosperm, the embryo and the total dry weight were determined at two day intervals. The results are shown in the table below.

Time after planting	Dry weight of endosperm (mg)	Dry weight of embryo (mg)	Total dry weight
0	43	2	45
2	40	2	42
4	33	7	40
6	20	17	37
8	10	25	35
10	6	33	39

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



b. What was the total dry weight on day 5 **(lmk)**

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……

c. Account for;

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

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

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iii. Decrease in total weight from day 0 to 8. **(lmk)**

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iv. Increase in total dry weight after day 8. **(lmk)**

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d. State **two** factors within the seed and two outside the seed that cause dormancy.

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

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……

……

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

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……

……

e. Give **two** characteristics of meristematic cells. **(2mks)**

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7. Discuss the various evidences which show that organic evolution has taken place. **(20mks)**

8. a) State any **three** differences between monosaccharides and polysaccharides. **(3mks)**

b) Explain the biological functions of lipids to living organisms. **(8mks)**

c) Describe the laboratory test for proteins using biurets test. **(2mks)**

d) Describe the role of the following in mammalian digestive system.

i. Pepsin **(2mks)**

ii. Bile **(2mks)**

iii. Hydrochloric acid - **(2mks)**

For Marking Schemes Contact 0746 222 000 / 0742 999 000

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

231/3 Biology (Practical) Paper 3

Time: 1¾ Hours

SCHOOL…… SIGN……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO SCHOOL (CONFIDENTIAL)

1. 20ml of Solution M -A mixture of Glucose, Ascorbic acid and Egg albumen
2. About 5ml of 0.1 M Hydrochloric acid with a dropper
3. Specimen R --- A Maize grain
4. Specimen S ---- A Ripe Orange
5. A scalpel blade
6. A filter paper
7. A filter funnel
8. A boiling tube in a rack
9. 10ml Measuring cylinder
10. 4 Test tubes in a rack
11. A 50ml empty beaker

Access to the following:

- Benedict's solution
- 1% copper II Sulphate solution with dropper
- 10%Sodium Hydroxide solution with dropper
- DCPIP solution with dropper
- Distilled water in a wash bottle

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

231/3 Biology (Practical) Paper 3

Time: 1¾ 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*
b) *Answer all questions in the spaces provided in the question paper.*
c) *You are required to spend the first 15 minutes of the hours allowed for this paper reading the whole paper before commencing your work.*
d) *Answers MUST be written on the spaces provided after each question.*
e) *Candidates may be penalized for recording irrelevant information and incorrect spelling especially of technical terms.*

FOR EXAMINERS USE ONLY

QUESTION	Max Score	Candidate Score
1	19	
2	12	
3	09	
TOTAL SCORE	40	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

1.You are provided with solution M, Dilute Hydrochloric acid ,DCPIP, Benedict's solution, 1% copper II Sulphate solution and 10% sodium hydroxide solution.

Add 2m1 of hydrochloric acid to solution M and Shake.

Filter the mixture using the filter paper and filter funnel into a boiling tube provided.

Wash the residue from the filter paper into a beaker.

Using the reagents provided carry out food tests on the residue and filtrate**.** **(15 marks)**

a) **Residue**

Food substance being tested for	**Procedure**	**Observation**	**Conclusion**
REDUCING SUGARS			
VITAMIN C			
PROTEINS			

b) **Filtrate**

Food substance being tested for	Procedure	Observation	Conclusion
REDUCING SUGARS			
VITAMIN C			
PROTEINS			

c) Account for the observation in (a) and (b) above. **(2mks)**

……

……

……

……

d) The physiological process demonstrated above occurs in all living things. Name two important processes in animals that depend on it. **(2mks)**

……

……

2. You are provided with specimen R and S

a) (i) Give a reason why both R and S are fruits**.** **(1mk)**

ii) Why is R also reffered to as a seed**?** **(1mk)**

(iii) Tabulate any two differences between specimen R and **S** **(2mks)**

Specimen R	Specimen S

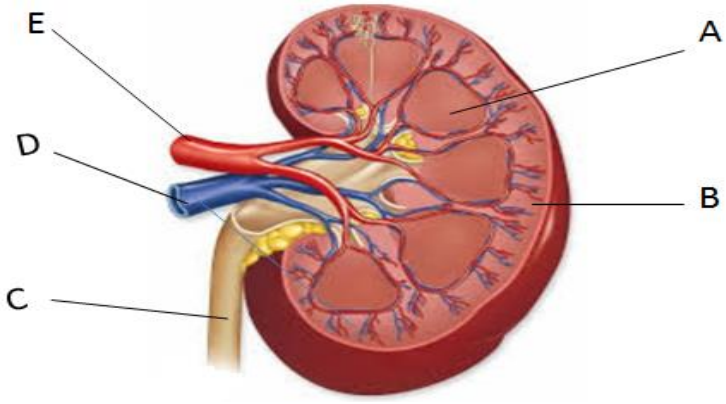
(b) Using a blade provided; carefully make transverse section of specimen S.

i) Make a labelled diagram of the cut section. Label any three parts**.** **(4mks)**

(ii) Name the type of placentation in S .Reason **(2mks)**

iii) What is the likely agent of dispersal of S? Reason **(2mk**

3. The photograph below is of mammalian organ



a) i. Name the basic functional units of the organ. **(1mk)**

ii) State any function of the organ above. **(1mk)**

b) Name the parts labelled- **A**

B

C **(3mks)**

c) How is the blood vessel E adapted its function**.** **(2mks)**

d) Give two differences between blood flowing through vessel E and D **(2mks)**

Blood in E	**Blood in D**

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

233/1 Chemistry (Theory) Paper 1

Time: 2 Hours

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUCTIONS

1. *Write your name and school and index number in the spaces provided at the top of this page*
2. *All answers should be written in the spaces provided.*
3. ***Non-programmable** silent electronic calculators and KNEC mathematical tables may be used.*
4. *Students should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing.*

FOR EXAMINERS USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATES SCORE
1 – 29	80	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

1. In the extraction of zinc, the zinc ore is crushed to a powder, mixed with oil and water and air blown through the mixture.

(a) What is the name given to this process? ***(1 mark)***

……

(b) Explain how this process works. ***(1 mark)***

……

……

(c) Name the chief ore from which zinc is extracted. ***(1 mark)***

……

2. **(a)** Using the oxidation number, identify and explain oxidizing and reducing agent ***(2 marks)***

$2\ H_2S(g) + SO_2(g) \rightarrow 3S(s) + 2H_2O(l)$

……

……

……

……

(b) Atomic number of Sulphur is 16. Write the electron configuration of S in SO_3^{2-} ***(1 mark)***

……

……

……

3. Name the process which takes place when: ***(3 marks)***

(a) Solid carbon (IV) oxide changes to gas

……

(b) Red litmus paper turns white when dropped in chlorine water

……

(c) Ethene gas molecules are converted into giant molecules

……

For Marking Schemes Contact 0746 222 000 / 0742 999 000

4. 3.1g of an organic compound containing carbon, hydrogen and oxygen only, produced 4.4g of carbon (IV) oxide and 1.8g of water on complete combustion. Determine its molecular formula if its formula mass is 60. ***(3 marks)***

5. Use the table below to answer the question that follow:

Element	Atomic number
A	11
B	13
C	14
D	17
E	19

(a) Write an equation for the reaction between **element A** and water. ***(1 mark)***

……

……

(b) Explain the trend of atomic radii between elements **A** and **D**. ***(2 marks)***

……

……

……

6. (a) Define the term allotropy ***(1 mark)***

……

……

(b) In terms of structure and bonding, explain why graphite is used as a lubricant. ***(2 marks)***

……

……

……

7. (a) State Boyles Law. ***(1 mark)***

……

……

(b) A given mass of the gas occupies $20cm^3$ at 25^0 C and 670mmHg pressure. Find the volume it will occupy at 10^0 C and 335mmHg. ***(2 marks)***

8. Concentrated sodium chloride was electrolysed using graphite electrodes. Name the product formed at the anode and give a reason for your answer. ***(2 marks)***

……

……

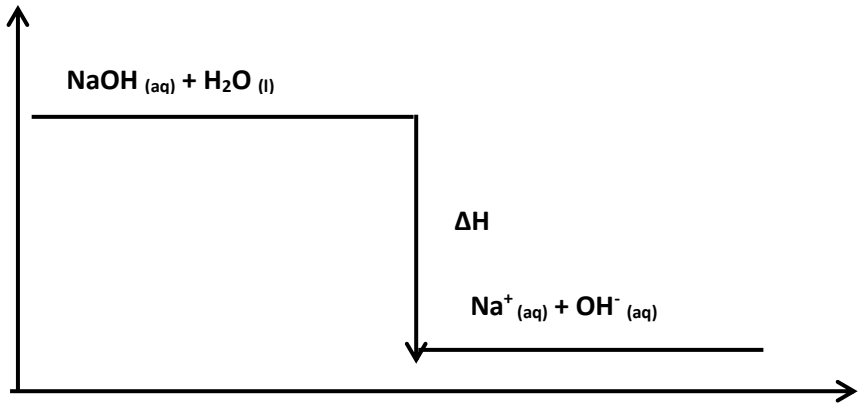
……

9. (a) What is meant by lattice energy? ***(1 mark)***

……

……

(b) Study the energy level diagram below and answer the question that follows:



What type of reaction is represented by the diagram? ***(1 mark)***

……

10. Magnesium chloride dissolves in water to form a neutral solution while aluminium (III) chloride forms an acidic solution. Explain. ***(3 marks)***

……

……

……

……

……

11. When solid **B** was heated strongly, it gave off water and a solid residue. When water was added to the solid residue, the original solid **B**, was formed.

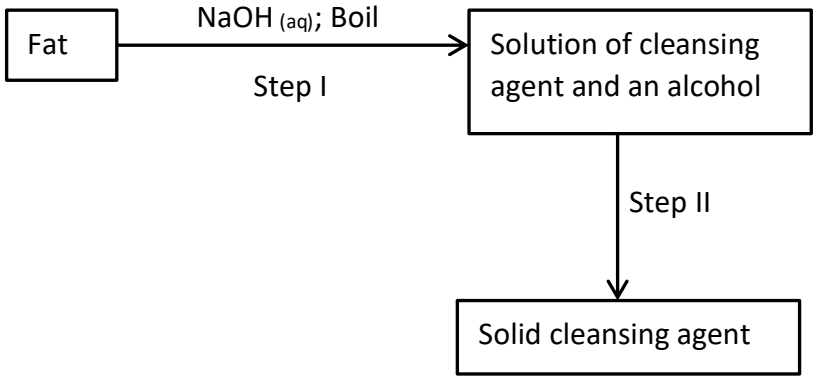
(a) What name is given to the process described? ***(1 mark)***

……

(b) Give **one** example of solid **B**. ***(1 mark)***

……

12. The scheme below was used to prepare a cleansing agent. Study it and answer the questions that follow.



(a) What name is given to the type of cleansing agent prepared by the method shown in the scheme? ***(1 mark)***

……

(b) Name one chemical substance added in step II. ***(1 mark)***

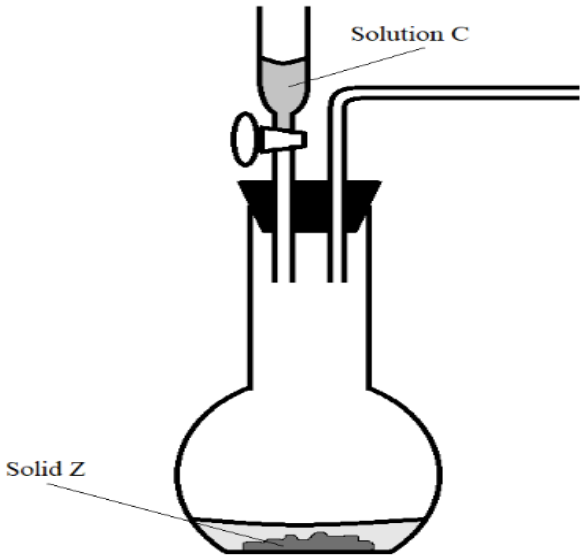
……

(c) What is the purpose of adding the chemical substance named in (ii) above? ***(1 mark)***

……

……

13. The diagram below represents part of a setup arranged for the collection of hydrogen gas in the laboratory. Study it and answer the questions that follow.



(a) Complete the diagram to show how a dry sample of hydrogen can be collected. ***(2 marks)***

(b) Give the most suitable identity of solid **Z**. ***(1 mark)***

.....

14. (a) Define ionization energy. ***(1 mark)***

.....

.....

(b) Explain why the second ionization energy of magnesium is higher than its first ionization energy. ***(2 marks)***

.....

.....

.....

15. A state of equilibrium between dichromate (VI) and Chromate ions is established as shown below.

$$Cr_2O_7^{2-}(aq) + 2OH^-(aq) \rightleftharpoons CrO_4^{2-}(aq) + H_2O(l)$$

(Orange) (Yellow)

(a) What is meant by a dynamic equilibrium? ***(1 mark)***

……

……

(b) State and explain observation made when a few pellets of potassium hydroxide are added to the equilibrium mixture. ***(2 marks)***

……

……

……

16. Describe how you would obtain solid sample of each of the following components of solid mixture containing lead (II) chloride, ammonium chloride and copper (II) oxide ***(3 marks)***

……

……

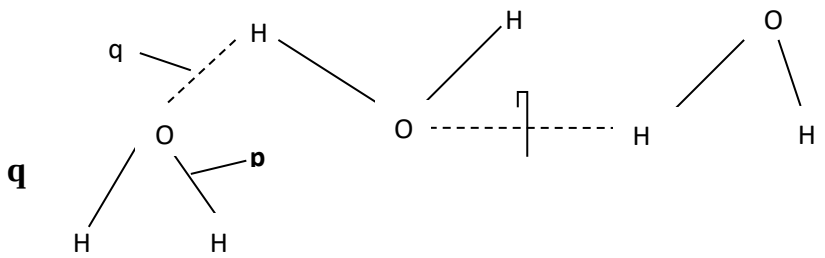
……

……

……

17. (a) Using dot and cross diagrams, show bonding in hydroxonium ion, H_3O^+. ***(2 marks)***

(b) Identify the type of bonds represented by **p** and **q** in the substances below.

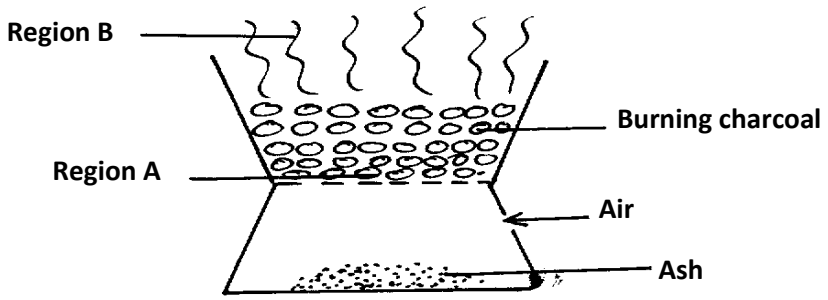


q

p ……...…….... ***(½ mark)***

q ……. ***(½ mark)***

18. The diagram below shows a 'jiko' when in use. Study it and answer the questions that follow.



(a) Identify the gas formed at region **B** *(1 mark)*

……

(b) Using an equation, explain what happens at region **A** *(1 mark)*

……

……

19. The following table gives the melting point of oxides of the third period elements. Study it and answer the questions that follow.

Formula of oxides	Na_2O	MgO	Al_2O_3	S_iO_2	P_4O_{10}	SO_2
Melting point (^0O)	1190	3080	3050	1730	560	-73

(a) Explain the large difference in the melting points of Na_2O and SO_2. *(2 marks)*

……

……

……

(b) Write the equation for the reaction between Al_2O_3 with;

(i) NaOH *(1 mark)*

……

……

(ii) HCl *(1 mark)*

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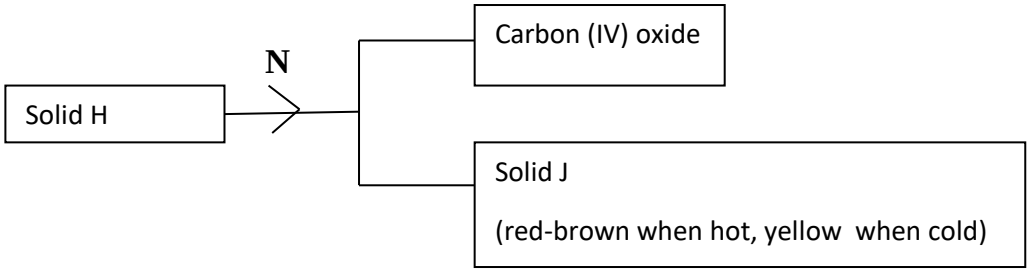
20. Use the scheme below to answer the question that follow.



(a) Identify **process N**. ***(1 mark)***

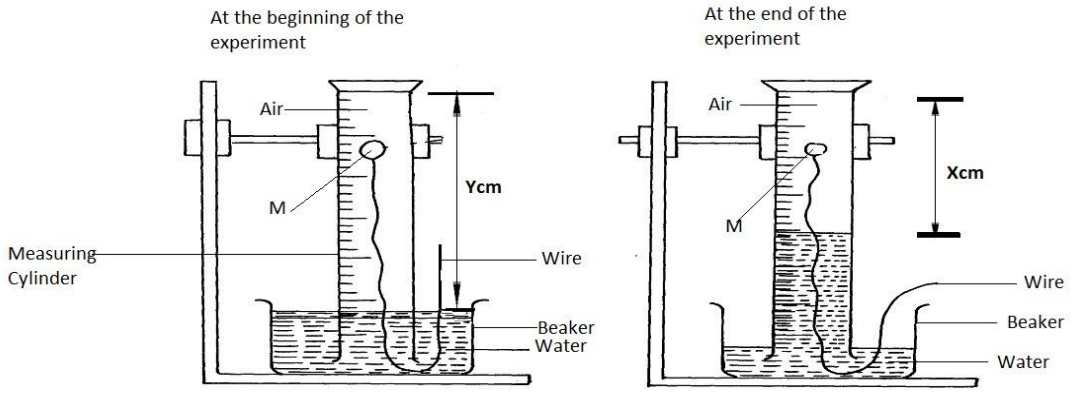
……..……

(b) Identify the solids ***(2 marks)***

H- ……

J- ……

21. A form one class carried out an experiment to determine the active part of air. The diagram below shows the set-up of the experiment and also the observation made.



(a) Identify substance M ***(1 mark)***

……

(b) State two reasons for the suitability of substance M for this experiment ***(1 mark)***

……

……

……

(c) Write the equation for the reaction of substance **M** and the active part of air ***(1 mark)***

……

22. The table below gives three experiments on the reaction of excess hydrochloric acid and 1.5g of zinc done under different conditions. In each the volume of gas was recorded at different time internals.

Experiment	Form of Zinc	Hydrochloric acid solution
I	Powder	1.5M
II	Granules	1.0 M
III	Powder	1.0 M

On the axis below draw and label three curves that could be obtained from such results. ***(3 marks)***



23. When solid magnesium carbonate was added to a solution of hydrogen chloride in methylbenzene, there was no observable change. On addition of some water to the mixture, there was effervescence. Explain the observation. ***(2 marks)***

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24. (a) Define the term solubility. ***(1 mark)***

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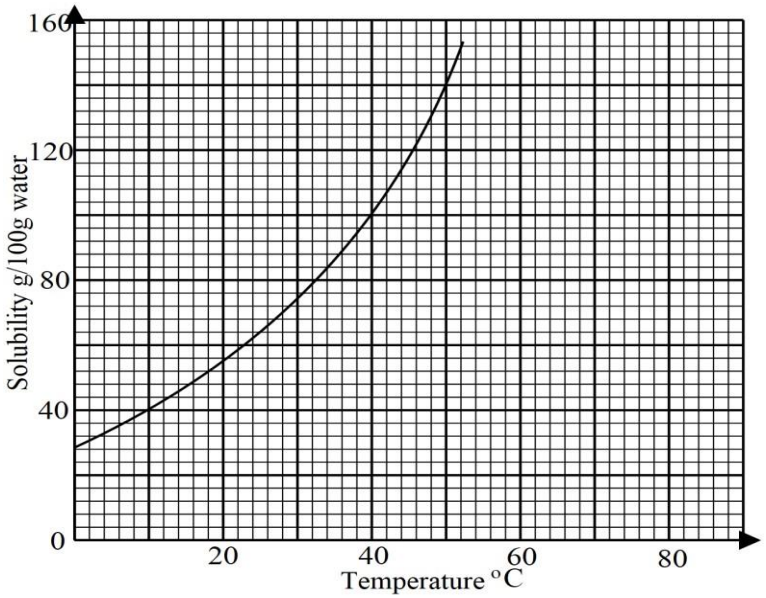
……

(b) The solubility curve of potassium nitrate is shown in the figure below.



(i) Determine the solubility of potassium at 50°C. ***(1 mark)***

……

……

……

(ii) Determine the molar concentration of saturated potassium nitrate at 50°C. (K = 39.0, O = 16.0, N = 14.0 and density of water 1 g/cm^3). ***(2 marks)***

25. Use the bond energies given below to calculate the heat of reaction for: ***(3 marks)***

$$H_2\,(g) + Cl_2\,(g) \longrightarrow 2HCl\,(g)$$

Bond	Energy (kJ/Mol)
H – H	435
Cl – Cl	243
H – Cl	431

26. The following table shows the products formed when nitrates of metals **J**, **Y**, and **W** are heated strongly.

Nitrate of	Products formed
J	Metal oxide + Nitrogen (IV) oxide + Oxygen
Y	Metal + Nitrogen (IV) oxide + Oxygen
W	Metal nitrite + Oxygen

(a) Arrange the metals in their order of decreasing reactivity. ***(1 mark)***

……

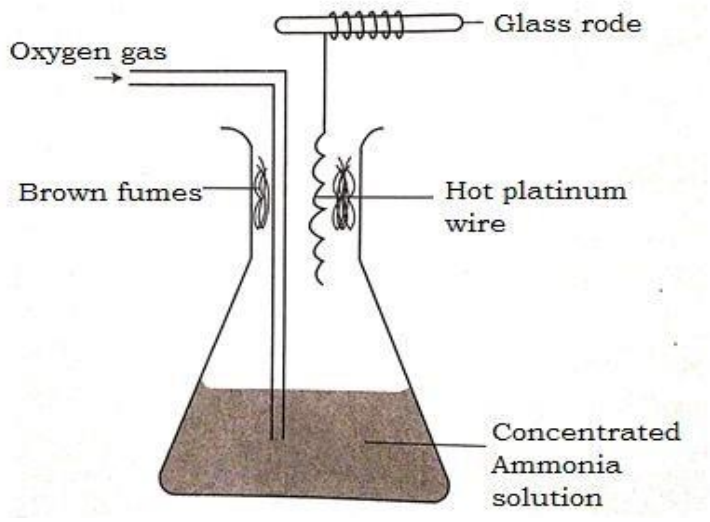
(b) Which metal forms a soluble carbonate? ***(½ mark)***

……

(c) Give an example of nitrate **Y**. ***(½ mark)***

……

27. Use the set up below to answer the questions that follow.



(a) Describe the formation of brown fumes. ***(2 marks)***

……

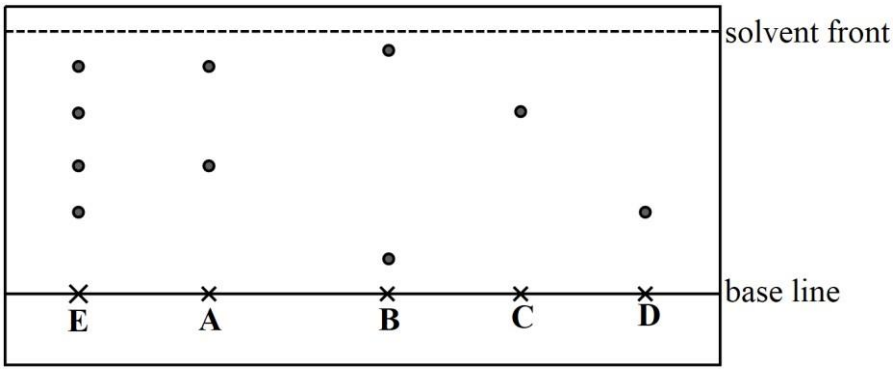
……

……

(b) Name another substance that can be used instead of platinum. ***(1 mark)***

……

28. An experiment was carried out to determine the presence of substances **A**, **B**, **C** and **D** in mixture **E**. the results obtained are shown in the figure below.



(a) Name a suitable solvent used in the method of separation illustrated in the figure. ***(1 mark)***

……

(b) Select:

(i) one substance which contains a component **not** present in **E**. ***(½ mark)***

……

(ii) a pure substance which is least soluble in the solvent used. ***(½ mark)***

……

(c) State one application of chromatography in an athletics competition. ***(1 mark)***

……

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KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

233/2 Chemistry (Theory) Paper 2

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) *Answer* ***all*** *the questions in the spaces provided in the question paper.*
(c) *Non-programmable silent electronic calculators and KNEC mathematical tables may be used.*
(d) *All working* ***must*** *be clearly shown where necessary.*
(e) *Candidates should answer the questions in English.*

For Examiner's Use Only

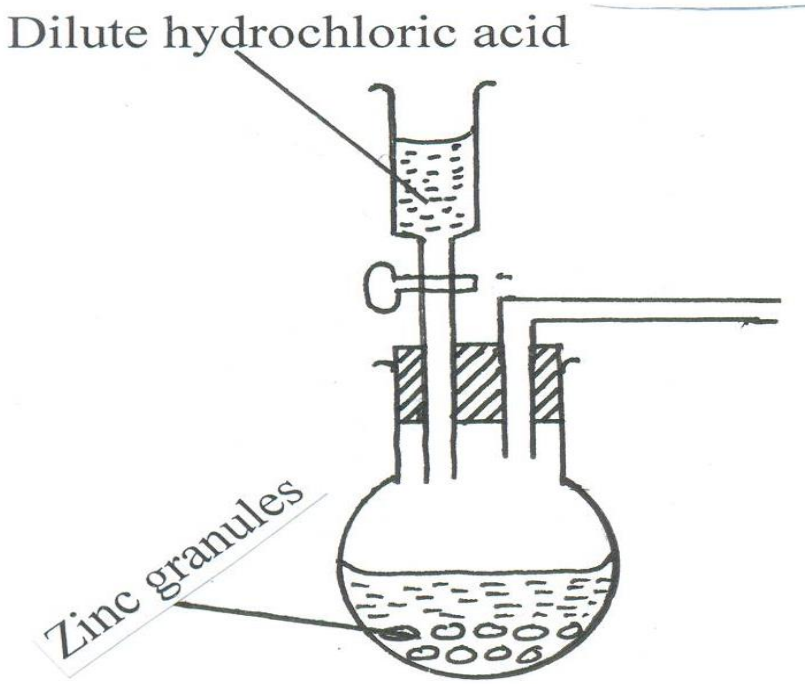
QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1	13	
2	10	
3	11	
4	10	
5	14	
6	11	
7	11	
Total score	80	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

1. The set up below shows the reagents that can form hydrogen gas in a laboratory.

(a) Complete the diagram to show how a dry sample of hydrogen gas can be collected.

(3 marks)



(b) Write the chemical equation for above reaction. **(1 mark)**

……

……

……

(c) Why is it not advisable to use calcium in this method to prepare hydrogen? **(1 mark)**

……

……

……

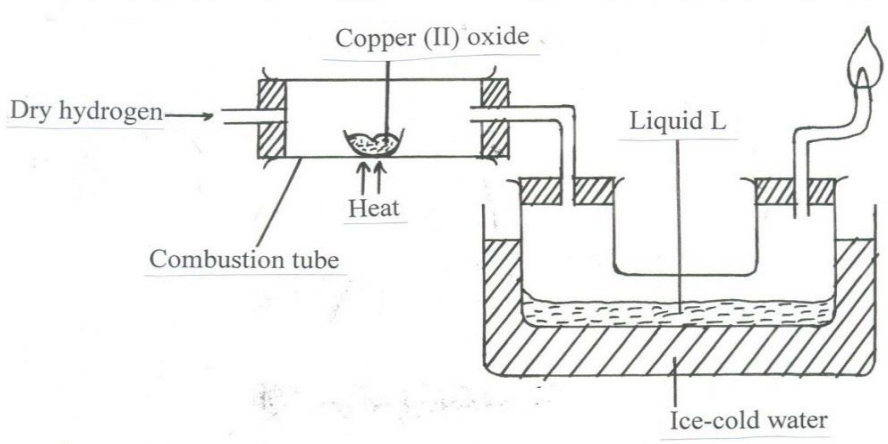
(d) Why is it advisable to discard the first jar of the gas collected? **(1 mark)**

……

……

……

(e) The set-up below was used to investigate some of the properties of hydrogen gas.



(i) State the observation made in the combustion tube. **(1 mark)**

……

(ii) Write down the equation leading to formation of liquid L. **(1 mark)**

……

(iii) What property of hydrogen is being investigated? **(1 mark)**

……

(**iv)** Why is potassium oxide not used to investigate this property of hydrogen gas? **(1 mark**

……

……

(v) Hydrogen gas is used in hydrogenation of oils. What do you understand by the term? hydrogenation? **(1 mark)**

……

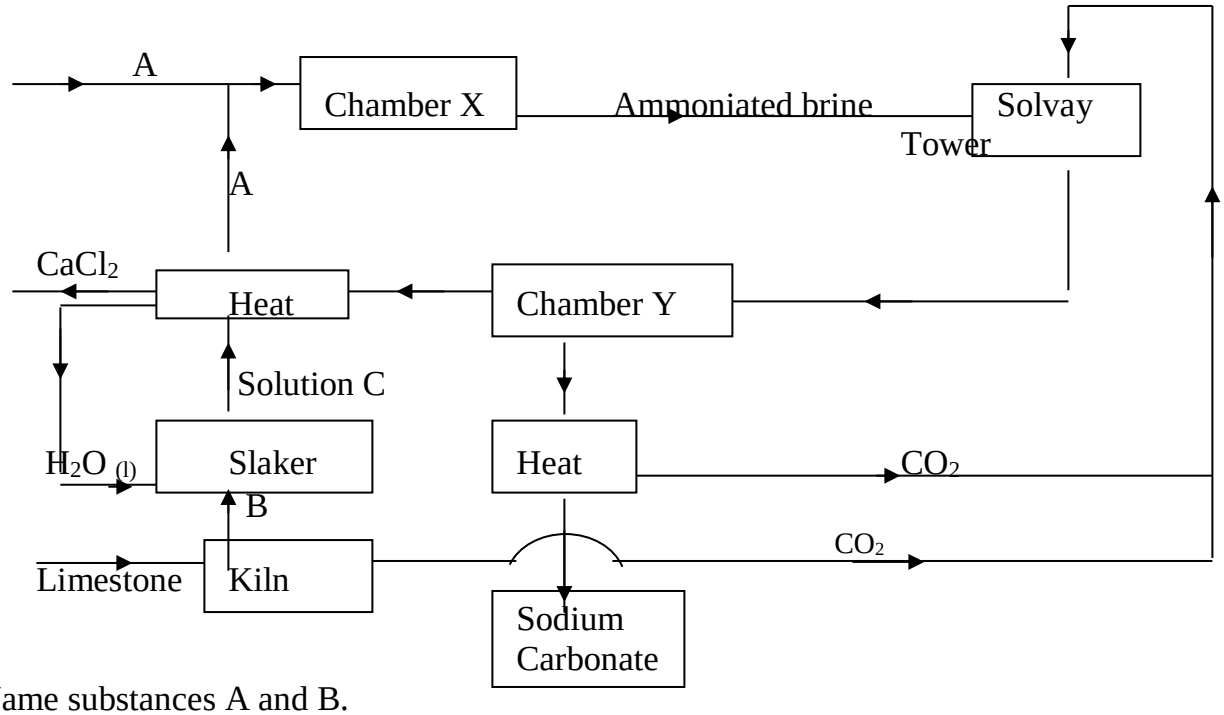
……

(vi) Give any two other industrial uses of hydrogen gas. **(2 marks)**

……

……

2. The chart below represents the main steps in the large-scale manufacture of sodium carbonate.



(a) Name substances A and B.

A ……. **(1 mark)**

B ……. **(1 mark)**

(b) Write down the chemical equation leading to formation of C. **(1 mark)**

……

……

(c) A stream of cold water is made to circulate around chamber X. What does this suggest about the reaction taking place. **(1 mark)**

……

……

(d) Name the process that takes place in chamber Y. **(1 mark)**

……

(e) State any two by-products recycled in the process. **(2 marks)**

……

……

(f) Give any two uses of sodium carbonate. **(1 mark)**

……

……

For Marking Schemes Contact 0746 222 000 / 0742 999 000

(g) In an experiment, wood charcoal was mixed with concentrated sulphuric (VI) acid in a test-tube. The mixture was then placed over a Bunsen-burner flame for some time.

(i) Write down the chemical equation of the reaction that takes place. **(1 mark)**

……

……

(ii) State the property of concentrated sulphuric (VI) acid investigated in (i) above. **(1 mark)**

……

……

3. a) Ethyne gas can be prepared in the laboratory by action of water on a certain compound M

(i) Name compound M ……. **(1 mark)**

(ii) Write an equation for the reaction taking place between compound M and water. **(1mark)**

……

(iii) Name the homologous series in which ethyne belongs. (**1mark)**

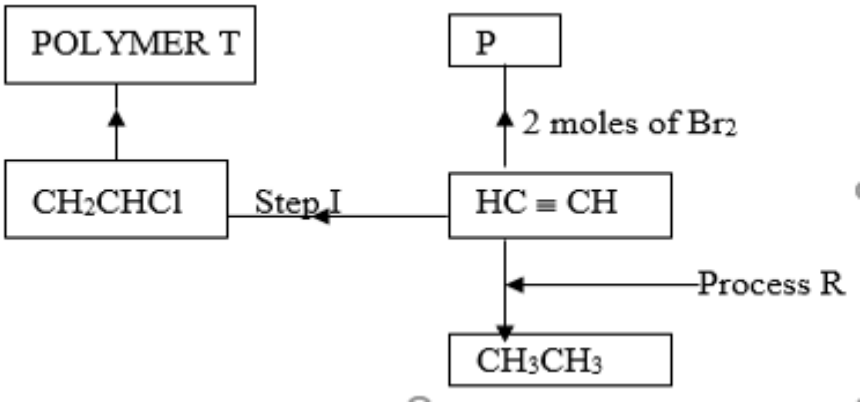
……

(iv) State one commercial use of ethyne. **(1 mark)**

……

……

(**b)** The scheme below represents some reactions of ethyne. Study it and answer the questions that follow.



(i) Name compound P and draw its structural formula. **(2 marks)**

(ii) Identify the reagents used in:

I) Process R **……..…….(1 mark)**

II) Step I **…….(1 mark)**

(iii) Draw the repeating unit in polymer T. **(1 mark)**

(iv) Name polymer T **……...(1 mark)**

(v) Give one use of polymer T **(1 mark)**

……

……

4. In the preparation of Copper carbonate, copper was burnt in air and the product collected. Dilute sulphuric acid was added and the mixture filtered and cooled. Sodium carbonate solution was added to the filtrate and the content filtered. The residue was washed and dried to give a green powder.

a) Give the chemical name of the product formed when Copper burns in air **(1mk)**

……

b) Write a chemical equation that leads to the formation of the green powder. **(1mk)**

……

……

c) (i) Name filtrate collected after sodium carbonate was added **(1mk)**

……

(ii) Name the green powder. **(1mk)**

……

d) Write chemical equation for the reaction between product in (a) and acid. **(1mk)**

……

e) Write an ionic equation to show the formation of the green powder **(1mk)**

……

f) Write an equation to show what happened when green powder is strongly heated. **(1mk)**

……

……

g) Using a diagram, describe how a salt can be obtained from the filtrate in c(i) above **(3mks)**

5. The grid below shows a section of the periodic table. The letters do not represent the actual symbols of the elements.

K	**L**				**M**		**N**	**P**
	Q		**R**	**S**		**T**	**V**	
W								

a) Name the family to which element P belongs**.** **(1mark)**

……

b) Which two elements will form carbonates that do not decompose on heating. **(1 mark)**

……

c) With a reason, identify an element in period three with the largest atomic radius**. (2marks)**

……

……

d) Write the formula of the compound formed between L and M (**1 mark)**

……

e) State two uses of element **R** and for each use, state property of element **R** that makes it possible for the use

(i) Use **(1mark)**

……

Property **(½ mark)**

……

……

(ii) Use **(1 mark)**

……

Property **(½ mark)**

……

f) Using dots **(.)** and cross **(x),** show bonding in the compound formed between **R** and oxygen . **(2 marks)**

g) In terms of structure and bonding, explain why the boiling point of the oxide of L is higher than that of N. **(2 marks)**

……

……

……

……

h) Calculate the volume of the gas produced when 1.95g of element W reacts with water (W= 39, Molar gas volume at S.T.P= 24,000cm^3**)** **(2 marks)**

……

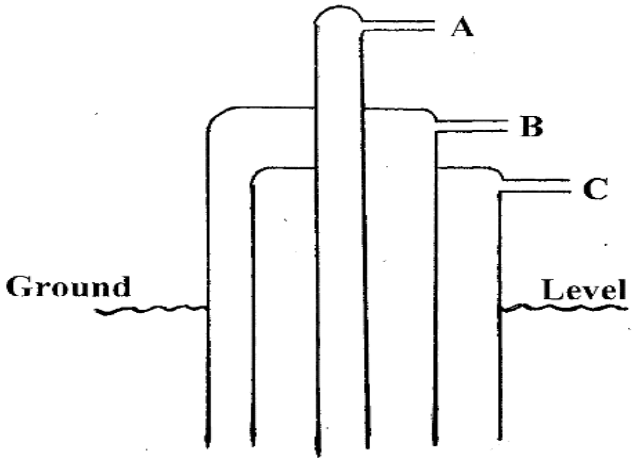
……

……

……

……

6. (a) The diagram below represents the extraction of Sulphur by the Frasch process.



i) Identify and state the use of the substances that pass through tubes A and C. **(2 marks)**

A…….

C…….

ii) Rhombic and monoclinic are allotropes of Sulphur. They are inter convertible as shown below

$$\text{Rhombic} \underset{}{\overset{96^{o}C}{\rightleftharpoons}} \text{Monoclinic}$$

I. What does the temperature 96°C represent? **(1 mark)**

……

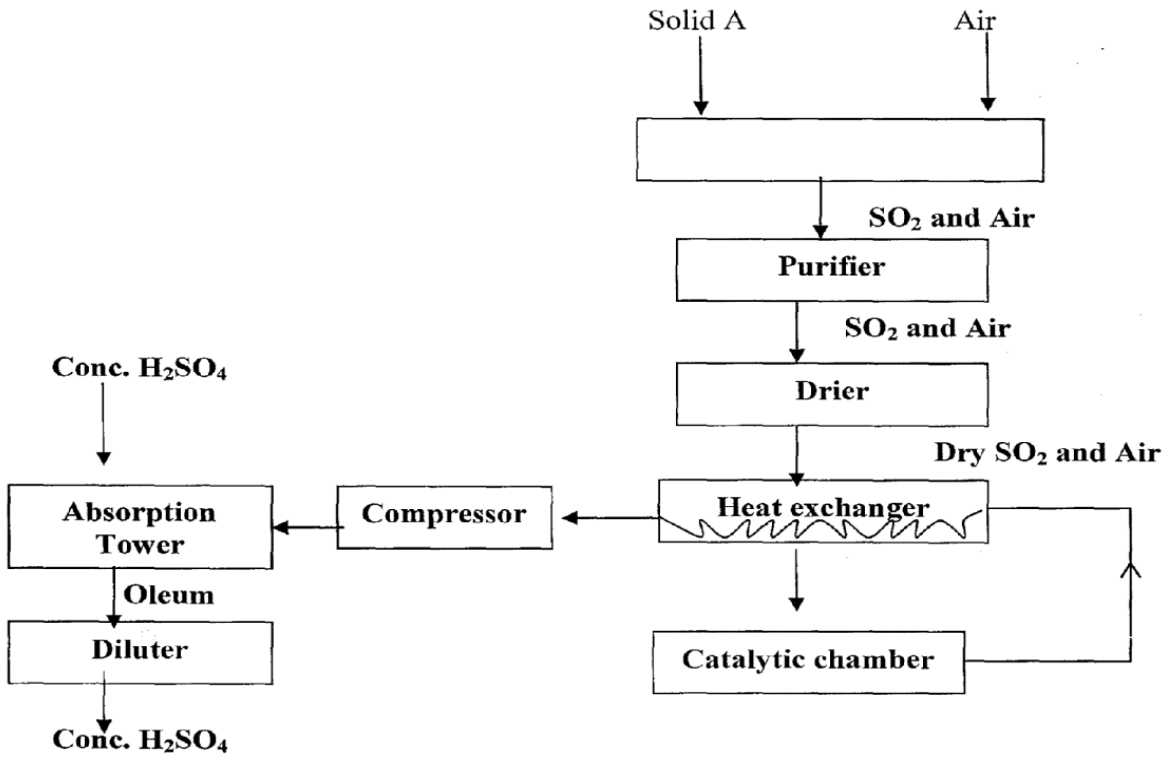
II. State the difference in crystalline appearances between rhombic and monoclinic crystals. **(l mk)**

……

……

……

(b) The following scheme represents the steps followed in the contact process, study it and answer the questions which follow.



i) Name solid **A**. **(1 mark)**

……

ii) Name **two** impurities removed by the purifier. **(1 mark)**

……

……

iii) Why is it necessary to remove impurities? **(1 mark)**

……

……

iv) Write chemical equations for the reactions which occur in the;

Catalytic **chamber** **(1 mark)**

……

Diluter **(1 mark)**

……

v) State the optimum temperature used in the catalytic chamber**.** **(1 mark)**

……

vi) Why is sulphur (VI) oxide gas not dissolved in water directly. **(1mark)**

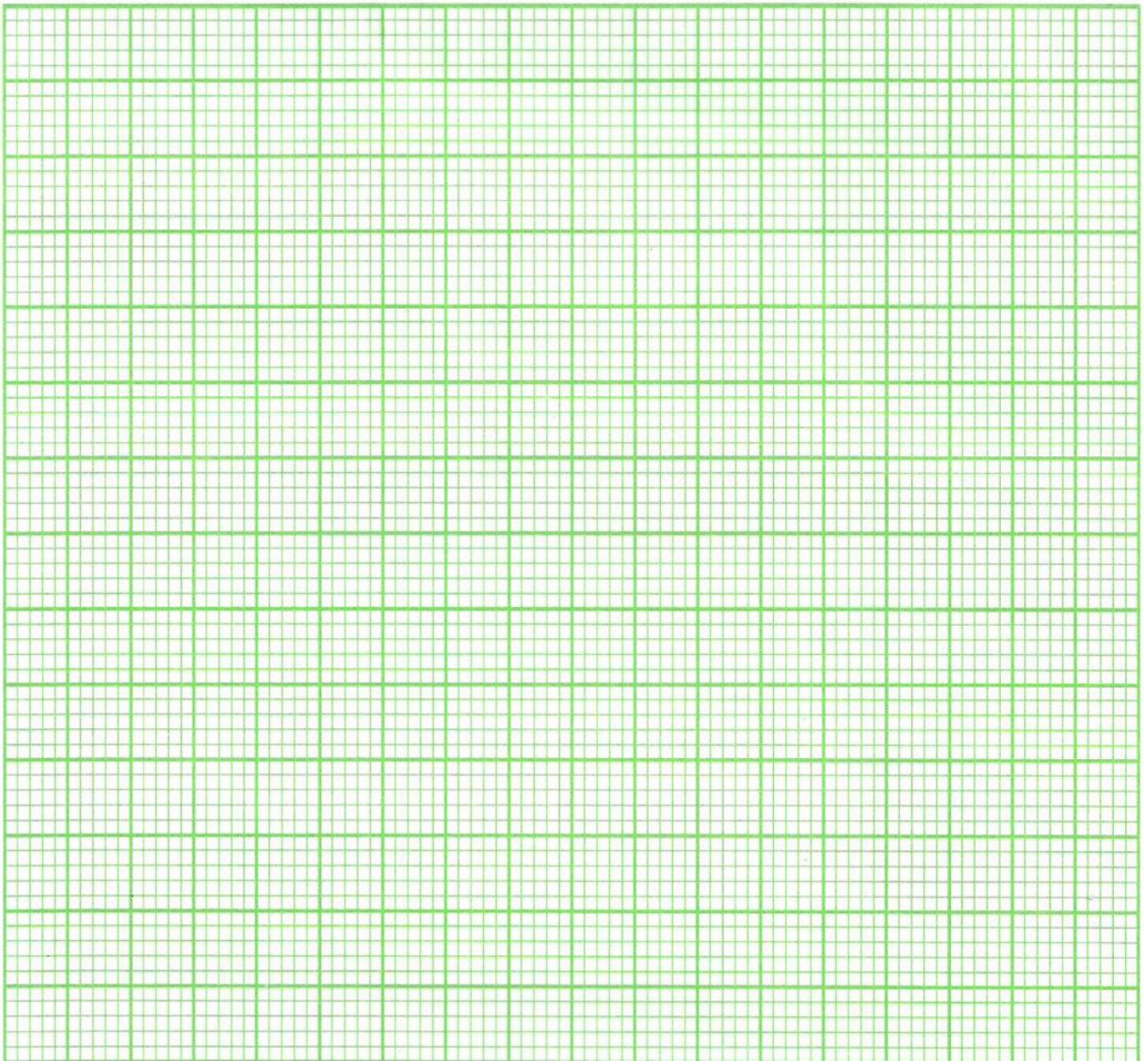
……

……

7. Equal masses (0.65g) of zinc granules and zinc powder were reacted in separate experiments with 2.0M hydrochloric acid. The volume of hydrogen liberated was measured at half-minute intervals and these volumes were measured at s.t.p. The results obtained are given in the table below.

Time (minutes)	**Volume of Hydrogen produced using zinc granules**	**Volume of Hydrogen produced using zinc powder.**
0.5	17	88
1.0	34	144
1.5	76	207
2.0	134	222
2.5	184	224
3.0	216	224
3.5	222	224
4.0	224	224

a) Plot the graphs of the volume of hydrogen produced against time using zinc granules and zinc powder respectively on the axis. **(4 marks)**



b) Which reaction has a greater initial rate? Explain your answer. **(2 marks)**

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c) At what time is the rate of the two reactions the same? Explain. **(2 marks)**

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d) What mass of zinc will be left after one minute in the reaction between zinc powder and hydrochloric acid (molar volume at s.t.p = 22.4dm3, zn = 65) **(2 marks)**

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e) On the same axis, draw a sketch of the graph that would be obtained if the zinc granules are reacted with 1.0M hydrochloric acid. **(1 mark)**

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KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

233/3 **Chemistry** (Practical) Paper 3

Time: 2¼ Hours

SCHOOL..... **SIGN**.....

Instructions to schools;

The information contained in this paper is to enable the head of the school and the teacher in charge of chemistry to make adequate preparation for Chemistry practical examination. NO ONE ELSE should have access to this paper or acquire knowledge of it's content. Great care must be taken to ensure that the information herein does NOT reach the candidates either directly or indirectly. The teacher in charge of chemistry should not perform any of the experiments in the same room as the candidates nor make the results of the experiments available to the candidates or give any other information related to the experiment to the candidates. Doing so will constitute an examination irregularity which is PUNISHABLE.

In addition to the normal laboratory fittings and apparatus, each candidates should have the following:

Requirements;

1. 250cm³ of solution W; 2.0 $HCl_{(aq)}$
2. Five 2cm long magnesium ribbons.
3. 120cm³ of solution R; 0.5M $Na_2CO_{3(aq)}$.
4. One 100ml and one 10ml measuring cylinders.
5. Three conical flasks.
6. One stop watch.
7. A piece of label
8. 500ml distilled water.
9. One burette (50ml).
10. One 25ml pipette and pipette filler.
11. One complete retort stand.
12. One white tile.
13. About 1.0g of solid K
14. Six test tubes and one boiling tube on a test-tube rack.
15. Bunsen burner and lighter.
16. Blue litmus
17. Red litmus
18. Two boiling tubes.
19. About 0.2g of $NaHCO_3$ solid.
20. About 1.0g of solid S
21. Metallic spatula

ACCESS TO

1. Methyl orange indicator.
2. 2M $NaOH_{(aq)}$
3. 0.5M $NaCl_{(aq)}$
4. 2M $NH_4OH_{(aq)}$
5. 0.5M $Ba(NO_3)_{2(aq)}$
6. 2M $HNO_{3(aq)}$
7. $MnO^-_{4(aq)}$ /$H^+_{(aq)}$
8. Bromine water.

PREPARATIONS:

1. Solid K is hydrated aluminium ammonium sulphate.
2. Solid S is maleic acid.
3. Preparation of $KMnO_{4(aq)}$ / $H^+_{(aq)}$
   Dissolve 3.16 of solid $KMnO_{4(S)}$ in 200cm³ of $2MH_2SO_{4(aq)}$ making it up to one litre using distilled water.
4. Preparation of bromine water.
   Dissolve 1.0ml of bromine liquid in 100cm³ of distilled water.

For Marking Schemes Contact 0746 222 000 / 0742 999 000

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

233/3 Chemistry (Practical) Paper 3

Time: 2¼ 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.*
* *Sign and write the date of examination in the spaces provided.*
* *Answer **ALL** questions in the spaces provided in the question paper.*
* *You are **NOT** allowed to start working with the apparatus for the first*

15 minutes of the 2¼ hours allowed for this paper. This time is to enable you to read the question paper and make sure you have all the chemicals and apparatus you may need.

* *Mathematical tables and silent electronic calculators may be used.*
* *All working must be clearly shown where necessary.*

For Examiner's Use Only

Question	Maximum score	Candidate's score
1	22	
2	11	
3	07	
Total score	**40**	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

1. You are provided with :

- 2M hydrochloric acid, solution W
- 5 pieces of magnesium ribbon, each 2cm long
- 0.5M sodium carbonate, solution R

You are required to determine:

i) the rate of reaction between hydrochloric acid and magnesium

ii) the mass of 2cm of magnesium ribbon

Procedure 1

I. Using a clean measuring cylinder, measure 60cm^3 of 2M hydrochloric acid, solution W and place it into a clean conical flask. Take one piece of 2cm piece of magnesium ribbon provided and place it in the hydrochloric acid and immediately start the stopwatch.

II. Measure and record the time taken for the magnesium ribbon to react completely with hydrochloric acid in table 1 below.

Retain the contents of conical flask 1 for use in procedure II. Label this solution P

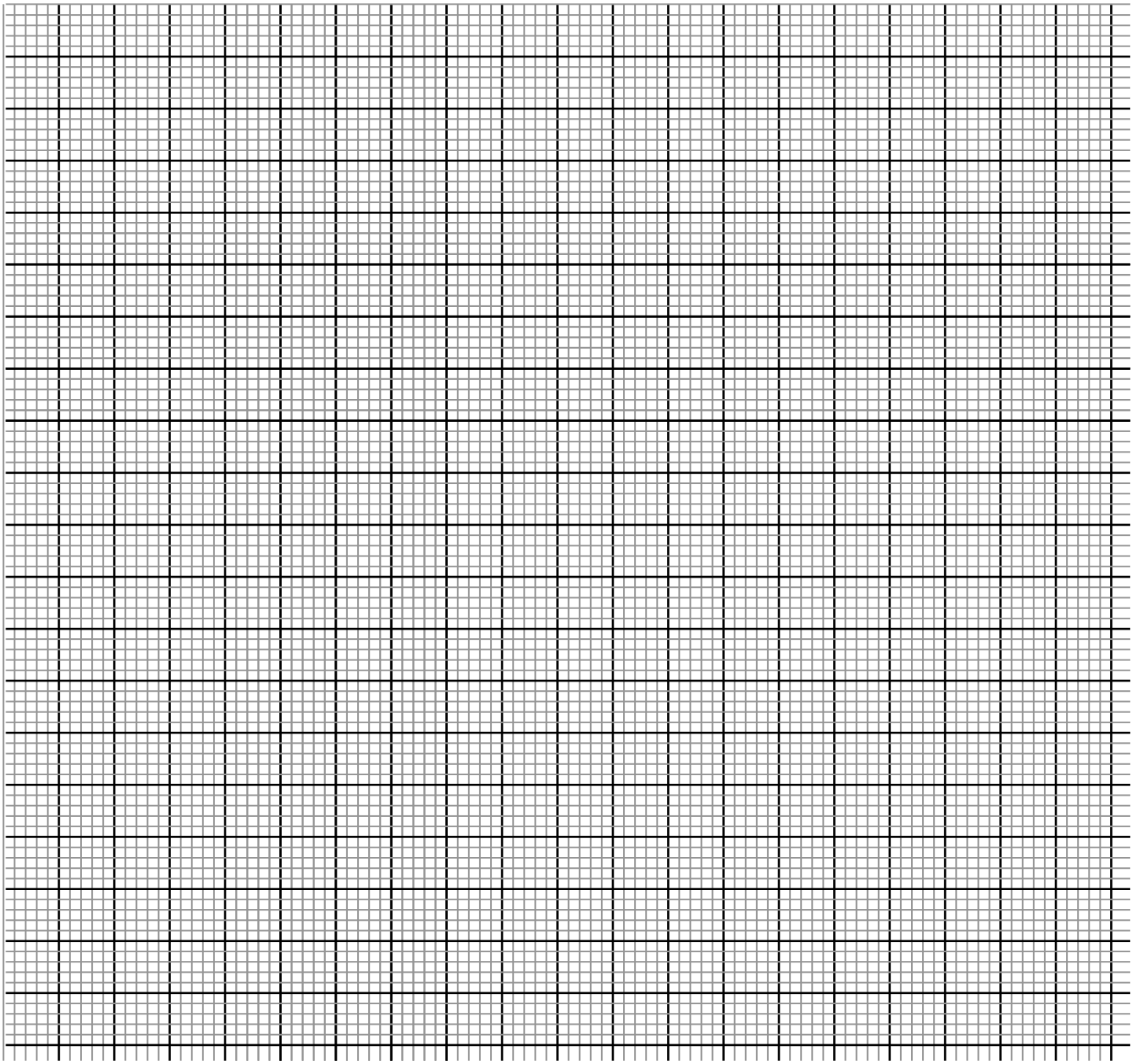
III. Repeat the procedure using 50cm^3, with 10 cm^3 of water , 40 cm^3 and 20cm3 of water ,, 30cm3 and 20cm3 of water , portions of 2M hydrochloric acid adding distilled water to make up to 60cm3 of solution and complete the table below.

NOTE: Do not retain the contents of the conical flask in experiments 2, 3, 4 and 5. Table 1

Experiment number	1	2	3	4	5
Volume of 2M hydrochloric acid(cm^3)	60	50	40	30	20
Volume of water added	0	10	20	30	40
Time taken for ribbon to disappear (s)					
1/time (sec $^{-1}$)					

(6mks)

a) Plot a graph 1/time (sec^{-1}) against volume of 2M hydrochloric acid **(3mks)**



b) From your graph, determine the time taken for the ribbon to disappear when $36cm^3$ of 2M hydrochloric acid were used. **(1mks)**

……

c) In terms of rate of reaction, explain the shape of your graph. **(1 mks)**

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……

Procedure II

a) Using a clean measuring cylinder measure 40cm^3 of distilled water and add it to the contents of the conical flask retained in procedure I labeled solution P

b) Fill a burette with solution P. Pipette 25.0$cm^3$of solution R 0.5M sodium carbonate and place it into a clean flask. Add 2-3 drops of methyl orange indicator to solution R. Titrate with solution P and record your results in table II below. Repeat the titration two more times and complete the table.

Table II` **(4mks)**

	1	2	3
Final volume(cm^3)			
Initial volume (cm^3)			
Final- initial volume (cm^3)			

Calculate the :

i. Average volume of solution P used. **(1 mks)**

……

……

……

12. Number of moles of sodium carbonate solution R used. **(1 mks)**

……

……

……

ii. Number of moles of hydrochloric acid used. **(1 mks)**

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……

iii. Number of moles of hydrochloric acid present in $100cm^3$ of solution P. **(1 mks)**

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……

iv. Number of moles of hydrochloric acid present in $60cm^3$ of solution W. **(1 mks)**

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v. Number of moles of hydrochloric acid that reacted with 2cm magnesium ribbon. **(1 mks)**

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vi. Mass of magnesium present in 2cm ribbon. (Mg = 24.0) **(1 mks)**

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……

2. You are provided with solid K. Carry out the following tests below. Write your observations and inferences in the spaces provided.

a) Place about one half of solid K in a dry test tube. Heat gently then strongly. Test any gases produced with blue and red litmus papers

observation	**inference**
(1mk)	**(1mk)**

b) Place the remaining amount of solid K in a boiling tube. Add about 10cm3 of distilled water and shake the mixture.

observation	inference
(1mk)	**(1mk)**

c) Divide solution K above into four portions of 2cm3 each in separate test tubes. Use the portions for tests (i) to (iv) below.

i) To the first portion add sodium hydroxide solution dropwise until in excess.

observation	inference
(1mk)	**(1mk)**

ii) To the second portion add about $1cm^3$ of sodium chloride solution

observation	inference
(1mk)	**(1mk)**

iii) To the second portion add aqueous ammonia drop wise till excess

observation	inference
(½mk)	**(½mk)**

iv) To the second portion add three drops of aqueous barium nitrate followed by five drops of nitric (v) acid .

observation	inference
(1mk)	**(1mk)**

3. You are provided with an organic substance S. Carry out the following tests and record your observations and inferences in the spaces provided.

a) Place about one third of substance S on a metallic spatula and ignite it with a bunsen burner flame.

observation	inference
(1mk)	**(1mk)**

Place the remaining amount of substance S in a boiling tube. Add about $10cm^3$ of distilled water and shake well. Use about $2cm^3$ portions of the mixture obtained for tests (i) to (iii) below.

i) To the first portion add solid sodium hydrogen carbonate.

observation	**inference**
(½mk)	**(½mk)**

ii) To the second portion add two drops of acidified potassium manganite (VI) solution.

observation	**inference**
(1mk)	**(1mk)**

iii) To the third portion add 3 drops of bromine water

observation	**inference**
(1mk)	**(1mk)**

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

232/1 Physics (Theory) Paper 1

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 $10m/s^2$

For Examiner use only

SECTION	QUESTION	MAX MARKS	SCORE
A	1 – 14	25	
B	15	08	
	16	13	
	17	14	
	18	11	
	19	09	
	TOTAL	80	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

SECTION A (25 MARKS)

Answer all the questions in this section in the spaces provided

1. Figure 1 shows a section of a burette filled with a colourless liquid.



Figure 1 (a)



Figure 1 (b)

Figure 1

Figure 1(b) shows a magnified scale indicating new level of liquid in the burette after some volume ***x*** of the liquid has been removed.

(a) State the new level of the liquid shown in figure 1(b). **(1mk)**

(ii) Determine the value of ***x*.** **(1mk)**

2. A form one student set up the apparatus as shown in figure 2.

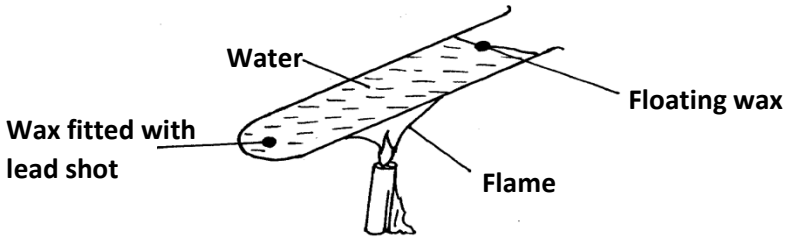

Figure 2

The boiling tube was heated in the middle as shown

(i) Which wax melted? **(1mk)**

(ii) Explain your answer in (i) above. **(1mk)**

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……

3. State the SI unit of gravitational field intensity**.** **(1mk)**

……

……

4. Define force in terms of momentum **(1mk)**

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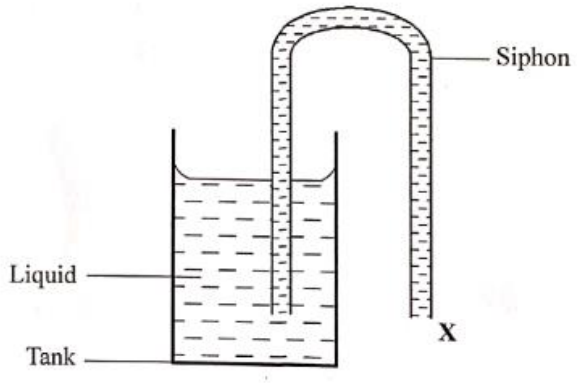
5. A body is uniformly accelerated from rest to a final velocity of $100ms^{-2}$ in 10s. Determine the distance covered. **(2mks)**

6. Figure 3 shows a siphon used to empty a tank.



In order to start the siphon, give a reason why the tube must be filled with a liquid and end X must be below the level of the liquid in the tank**.** **(2mks)**

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7. Explain how a piece of chalk can be used to demonstrate that matter is made up of tiny particles.

(1mk)

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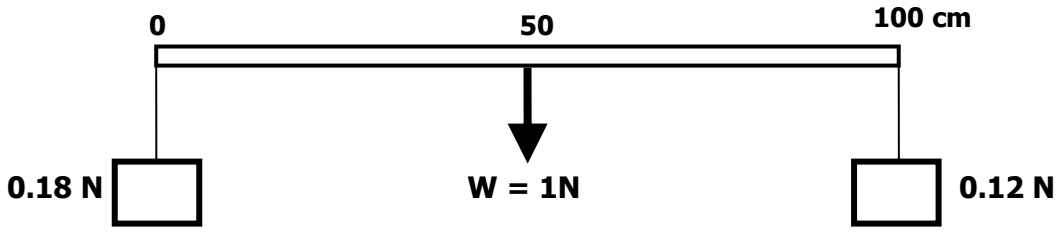
8. The figure 4 shows a uniform meter rule of weight 1N with two weights of weight **0.18N** and **0.12N** suspend from its ends.



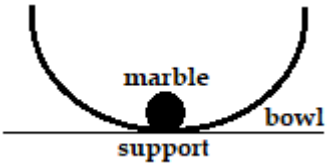
Determine how far from the 0.18 N weight a pivot should be placed in order to balance meter rule.

(3mks)

9. State **any two** changes that can be made to a fluid flowing in a streamline flow to make it turbulent flow**.** **(2mks)**

10. The solid marble shown below is in a stable equilibrium. On the space provided, sketch the same marble in a neutral state of equilibrium **(1mk)**

Figure 3



11. Show that the impulsive force on an object can be expressed as F = ma. **(3mks)**

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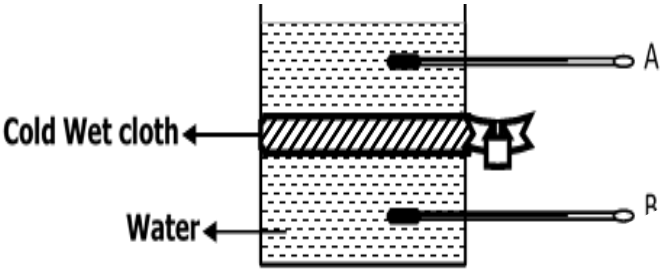
12. Figure 6 shows a beaker full of water at 90°C. The beaker is fitted with two identical thermometers A and B and a cold wet clothe wrapped around the middle of the beakers as shown in the diagram.



(i) State which thermometer will show a lower reading after some minutes. **(1mk)**

(ii) Explain your answer in (i) above. **(1mk)**

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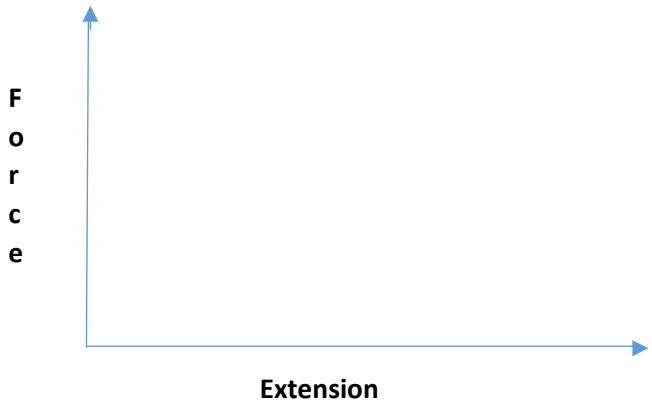
13. Two springs X and Y are defined as follows: X has a spring constant of 25N/m and Y has a spring constant of Y. Sketch on the axes below graphs representing the behaviour of X and Y. **(1mk)**



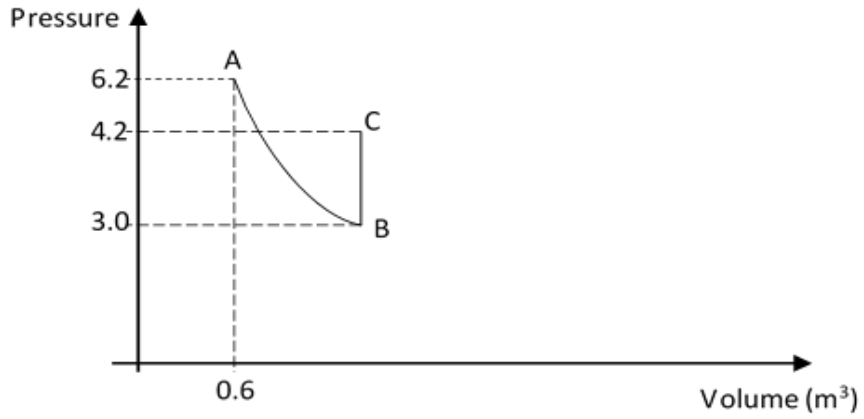
14. In an oil drop experiment to determine the size of an oil molecule certain assumptions are usually made. State any two assumptions**.** **(2mks)**

SECTION B (55 MARKS)

Answer all questions in the spaces provided below each question.

15. (a) The graph in figure 7 shows changes of pressure and volume of a fixed mass of a gas.

Figure 4



(i) Calculate the volume of the gas at B**.** **(4mks)**

(ii) I. Name the gas law represented by the graph between B and C**.** **(1mk)**

……

II. Give one way of increasing pressure at constant volume between B and C**.** **(1mk)**

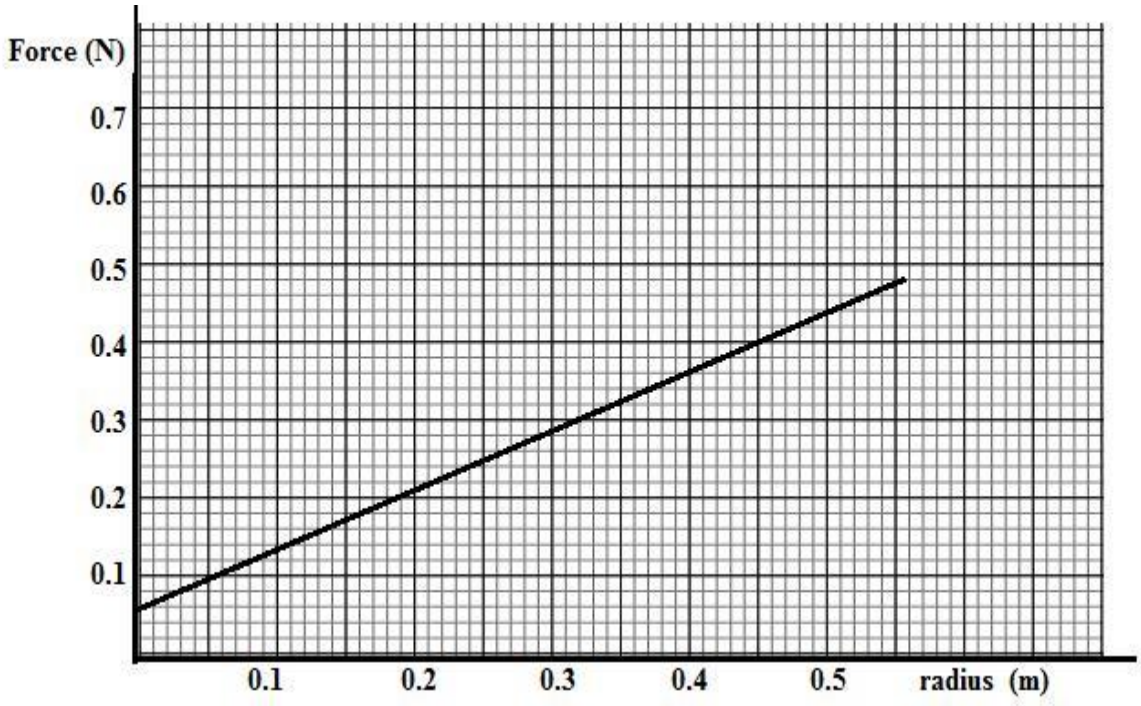
……

……

(b) Show that density of a fixed mass of a gas is directly proportional to the pressure at constant temperature. **(3mks)**

16. (a) Define ***angular velocity*** as used in circular motion. **(1mk)**

v) The graph in figure 8 was obtained in an experiment to investigate the variation of the centripetal force, F, with the radius, r of the circle on a turn table.

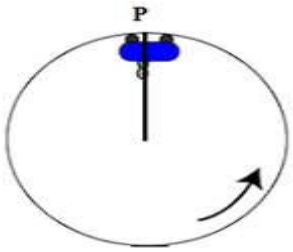


Given that the relationship between force, F, and radius, r, is of the form $F = m\omega^2 r + C$. Where c is a constant. Determine the angular velocity, **w** and the constant **C** of the body given that m = 100g.

(4mks)

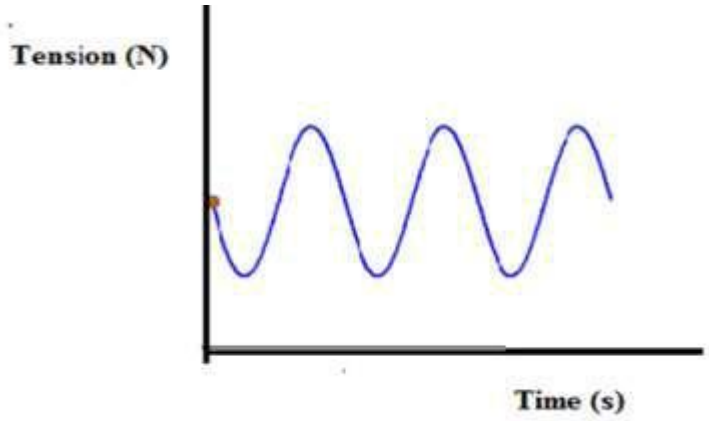
(c) Explain why the earth is said to be accelerating when revolving around the sun at constant speed**.** **(1mk)**

3. Figure 9 below shows a toy attached to a string and made to move along a vertical circle in an anti-clockwise direction.



(i) Sketch on the diagram above, the path followed by the trolley if the string cuts when it is at position P. **(1mk)**

(ii) the variation of tension in the string with time as the trolley moved along the vertical circle was plotted in the graph shown in figure 10.

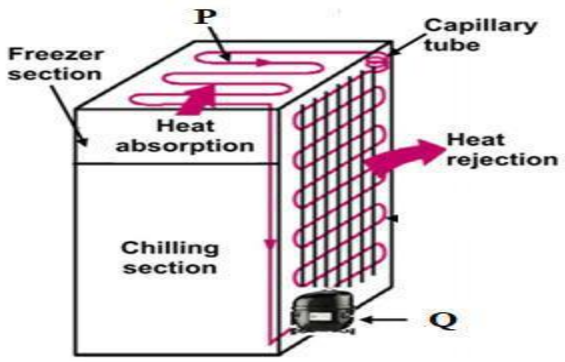


I. Mark on the graph the points **T** corresponding to position **P** in the circle shown in figure 12 above **(1mk)**

II. Give a reason why the graph is not touching the time axis **(1mk)**

e) A body moving with uniform angular velocity found to have covered an angular distance 170 radians in t seconds. Thirteen seconds later it is found to have covered a total angular distance of 300 radians. Determine t. **(4mks)**

17. (a) The figure 11 shows a domestic refrigerator.



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

(ii) Explain how cooling is achieved in the refrigerator. **(3mks)**

(iii) The shelves in a refrigerator are made of metal gauze instead of metal plates. Explain. **(2mks)**

(b) A copper can together with a stirrer of total heat capacity 60J/k contains 200g of water at 10°C. Dry steam at 100^{0}C is passed in while the water is stirred until the whole reach a temperature of 30^{0}C. Determine the mass of steam condensed. (Specific heat capacity of water=4200J/kgK and specific latent heat of vaporization of steam(water) =2260000J/kg). **(5mks)**

c) Increase in pressure increases the boiling point of a liquid. Explain how a pressure cooker helps in achieving this situation**.** **(2mks)**

18. (a) State the law of flotation. **(1mk)**

(b) You are provided with the following;

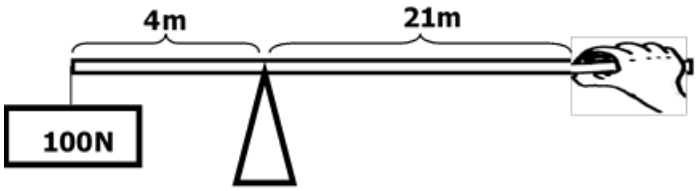
-A block of wood, a spring balance, thin thread, overflow can, measuring cylinder and some liquid.

With the aid of labelled diagram(s) describe an experiment to verify the law of flotation. **(5mks)**

c) Determine the minimum volume of copper that must be attached to a cork of mass 25g so that the two just submerge in water. (Relative density of copper and cork are 9.0 and 0.25 respectively). **(3mks)**

d) State two reasons why density bottle may be preferred to measure relative density. **(2mks)**

19 (a) Figure 12 shows a lever being used to raise a load of 100N.



(i) Determine

(I) the effort applied**.** **(2mks)**

(II) The velocity ratio and mechanical advantage**.** **(2mks)**

III) Efficiency of the machine. **(2mks)**

(b) Give two ways in which the mechanical advantage could be increased. **(2mks)**

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KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

232/2 Physics (Theory) Paper 2

Time: 2 Hours

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

- *Write your name, admission number, index number, name of school and signature in the spaces provided above.*
- *This paper consists of two sections A and B*
- *Answer all questions in section A and B in the spaces provided*
- *All working must be shown in the spaces provided.*
- *Mathematical tables and non-programmable electronic calculators may be used*

FOR OFFICIAL USE

SECTION	QUESTION	MAX. SCORE	CANDIDATE'S SCORE
A	1-14	25	
B	15	14	
	16	12	
	17	13	
	19	09	
	18	07	
TOTAL SCORE		80	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

SECTION A (25 MARKS)

Answer all the questions in the spaces provided

1. **Figure 1** shows a ray of light incident on a plane mirror. The mirror is rotated **anticlockwise** through an angle of $\mathbf{10^0}$.

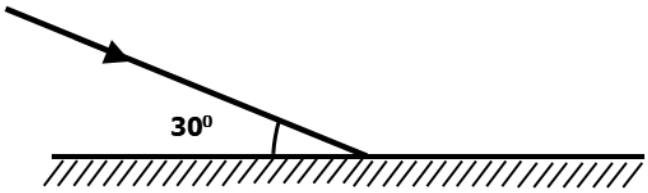


Figure 5

Determine the angle between the incident ray and the new reflected ray. **(2marks)**

2. Figures 2 (a) and **2 (b)** show two circuits with identical cells and bulbs.

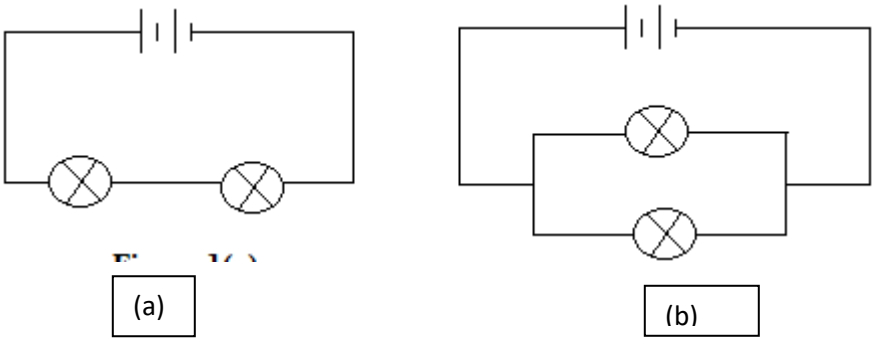


Figure 6

State, with a reason, in which circuit the bulbs will be brighter. **(2 marks)**

3. **Figure 3** shows a wooden rod placed between two bar magnets.

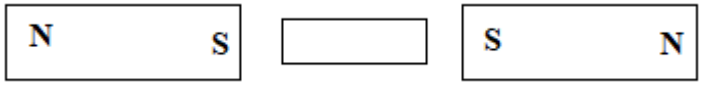


Figure 7

Sketch the resulting magnetic pattern in the arrangement in **figure 3**. **(1 mark)**

For Marking Schemes Contact 0746 222 000 / 0742 999 000

4. Figure 4 shows a circuit used by a student to investigate the effect of current on a coil.

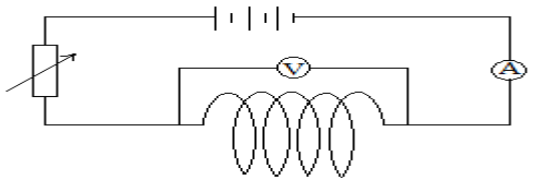


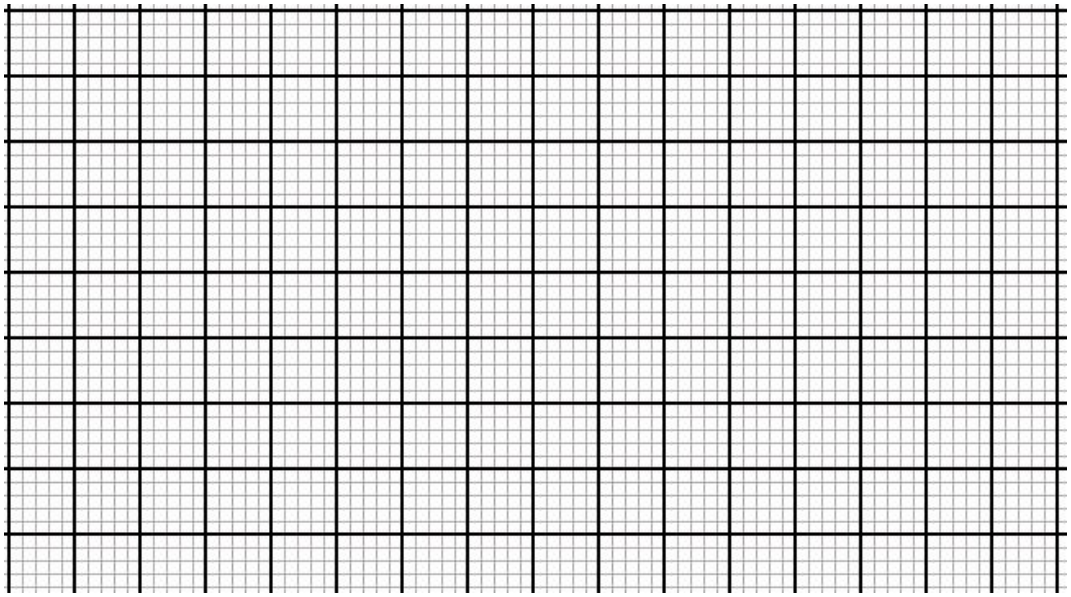
Figure 8

(i) The coil feels warmer after closing the switch. Explain. **(1 mark)**

(ii) The ammeter and voltmeter reading in **figure 4** is 1.5A and 4.1V respectively. Calculate the energy developed in 1 minute. **(2 marks)**

5. Give the difference between Infra-red and Ultraviolet radiation in terms of their production **(1 mark)**

6. On the grid provided below, show the display on the CRO screen of an **AC** signal peak voltage 400V and a frequency 50Hz when the time base is on. (Y-gain at 200V/div, time base at 5ms/div**)** **(2 marks)**



7. Figure 5 shows a virtual image I formed by a convex mirror.

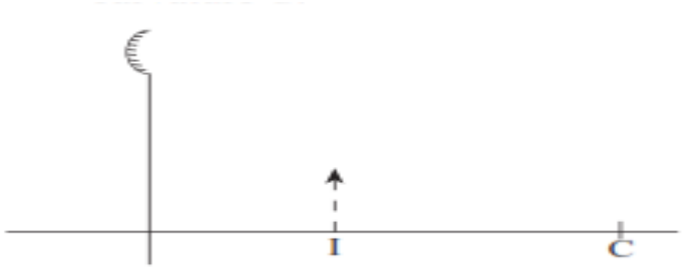


Figure 9

Draw a ray diagram to locate the object**.** **(3 marks)**

8. The figure 6 shows a cathode ray beam entering a magnetic field, perpendicular to the plane of the paper. Complete the diagram to show the path of the beam in the field**.** **(1 mark)**

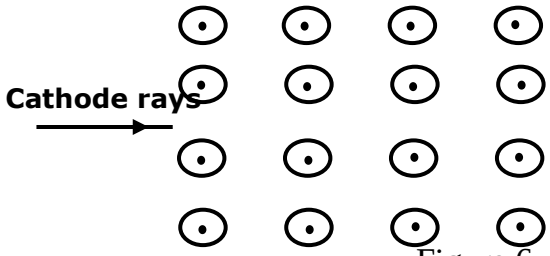


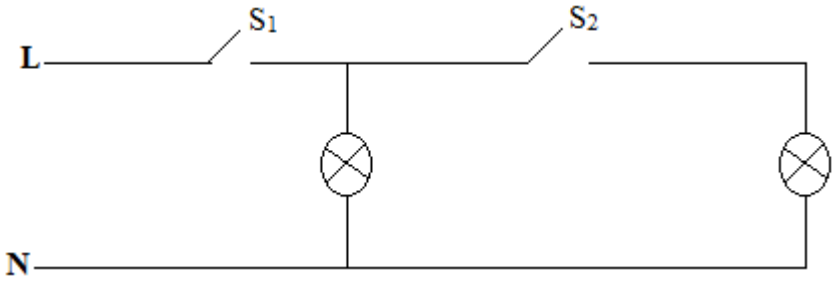
Figure 6

9. Uranium 235 was bombarded with a neutron and fission took place in the following manner.

$$^{235}_{92}\mathrm{U} + {}^{1}_{0}\mathrm{n} \longrightarrow {}^{90}_{38}\mathrm{Rn} + {}^{a}_{b}\mathrm{X} + 10\,{}^{1}_{0}\mathrm{n}$$

Determine the values of **a** and **b** **(2 marks)**

10. Figure 7 shows bulbs connected in a household.



(i) Identify any mistake in the circuit. **(1 mark)**

(ii) Draw the correct connection of the circuit. **(1 mark)**

11. The resistance of a metal conductor increases with increase in temperature. Explain **(2 marks)**

12. State what is meant by the term doping as used in diode. **(1 mark)**

13.Two students stand 300m from a wall. One bangs two pieces of wood together and at the same time, the other starts a stop watch. They hear an echo after 1.8 seconds. Determine the speed of sound in air. **(2 marks)**

14. Define wavelength as used in longitudinal wave. **(1 mark)**

SECTION B (55 MARKS)

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

15 a) **Figure 8** shows the parts and circuit of a modern X-ray tube.

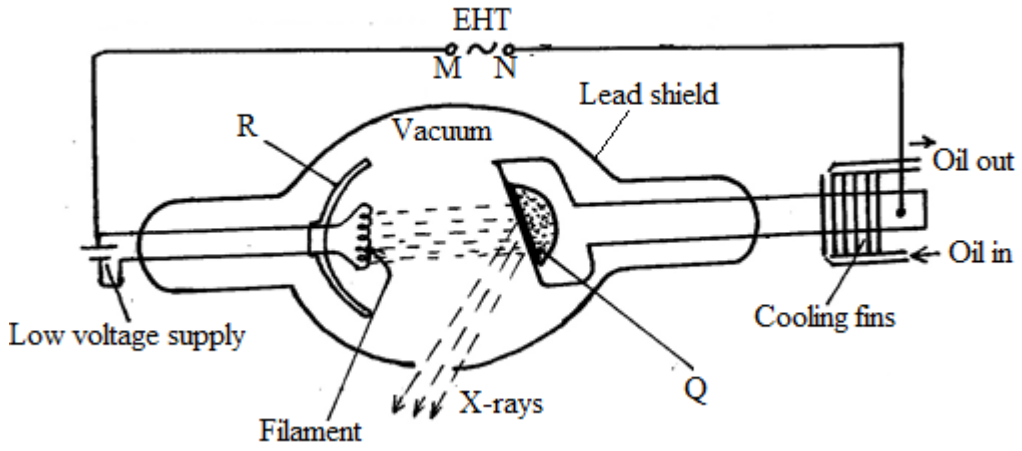


Figure 8

(i) State and explain how the following changes affect the nature of X-rays produced:

I.increasing the potential across MN. **(2 marks)**

II.increasing the filament current. **(2 marks)**

(ii) The material of Q should withstand a lot of heat. State the source of heat in the tube. **(1 mark)**

(iii) State the property of lead which makes it suitable as a shield. **(1 mark)**

(iv) Give a reason for the shape of part R. **(1 mark)**

b) A 5μF and a 3μF capacitor are connected in series with a 6V battery.

(i) Sketch and label the circuit diagram showing the arrangement**.** **(2 marks)**

(ii) Determine;

I.The potential difference across the 5μF. **(4 marks)**

II. The charge stored in the circuit**.** **(1 mark)**

(d) State one use of a charged gold leaf electroscope. **(1 mark)**

16.(a) State what is meant by the term mutual induction. **(1 mark)**

(b) **Figure 9** shows two coils wound on a laminated soft iron core. It is connected to a 300V mains supply.

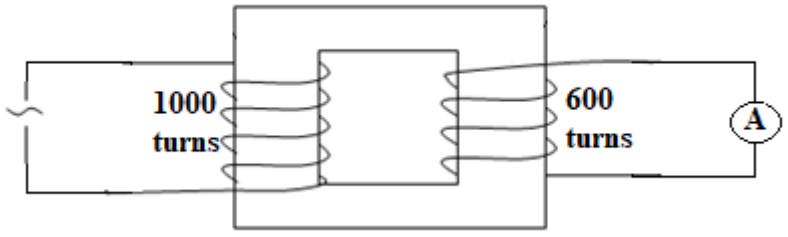


Figure 9

(i) Identify the type of the transformer in **figure 9**. **(1 mark)**

(ii) The transformer in **figure 9** loses 20% of the input energy into heat per second. Determine the maximum current measured on the ammeter, if the input current is 2A. **(3 marks)**

(iii) Explain how energy losses in the transformer in **figure 9** are minimized by having:

(I) a soft iron core. **(1 mark)**

(II) a laminated core. **(1 mark)**

(b) Figure 10 shows two identical copper coils X and Y placed close to each other. Coil X is connected to a DC power supply while coil Y is connected to a galvanometer.

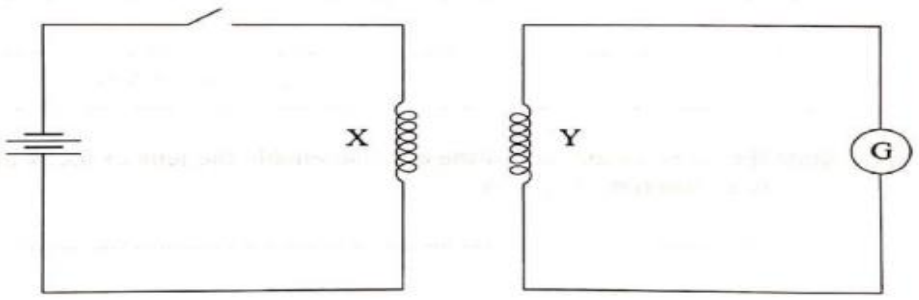


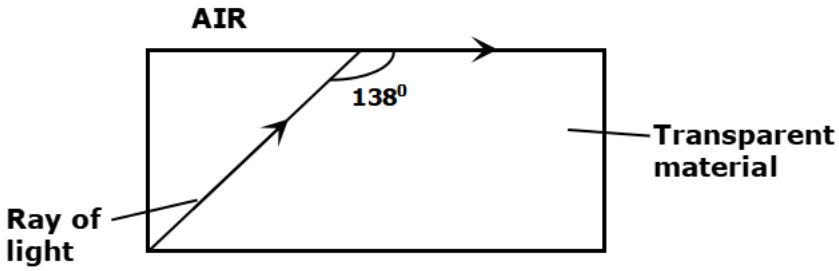
Figure 10

i) Explain what is observed on the galvanometer when the switch is closed. **(4mks)**

ii) State what is observed on the galvanometer when the switch is opened. **(1mk)**

17. (a) Apart from light moving from an optically denser medium to less dense medium, state the other condition for total internal reflection. **(1 mark)**

(b) **Figure 11** below shows the path of light through a transparent material placed in air.



Determine the refractive index of the transparent material. **(3marks)**

c) (i) Figure 12 shows an object O placed in front of an objective lens L_o whose focal length f_o is less than f_e the focal length of the eye piece lens L_e. Complete using ray construction how the arrangement would produce the final image. **(3 marks)**

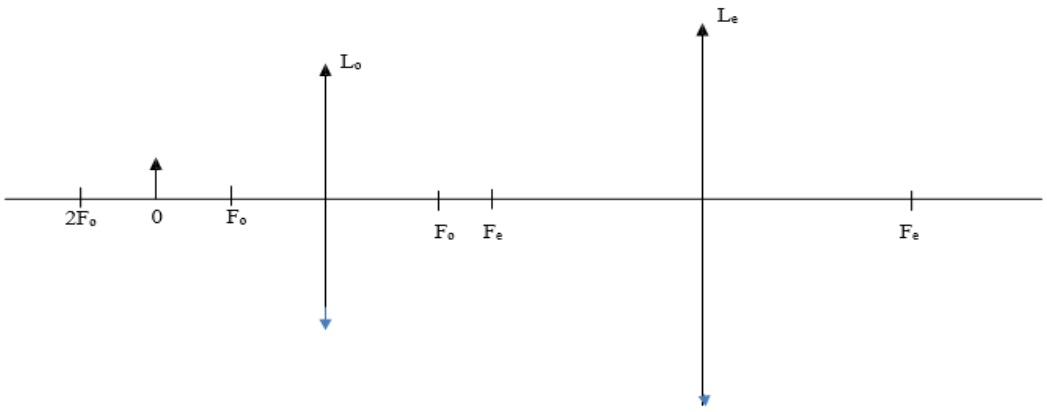


Figure 12

(i) An object is placed 25cm from the objective lens of focal length 15cm.On the other side of the objective lens another converging lens of focal length 30cm is placed as the eye piece lens. The distance between the two lenses is 52.5cm. Determine;

I. The position of the first image. **(3 marks)**

II. The position of the final image from the eye piece lens. **(3 marks)**

18. State **two** factors which determine the speed of photoelectrons emitted from a metal surface.

(2 marks)

c) Figure 13 shows a graph of the square of the maximum velocity $(V_{max})^2$ of the emitted photoelectrons against the frequency (f) of the radiation causing photoelectric effect on a clean zinc plate.

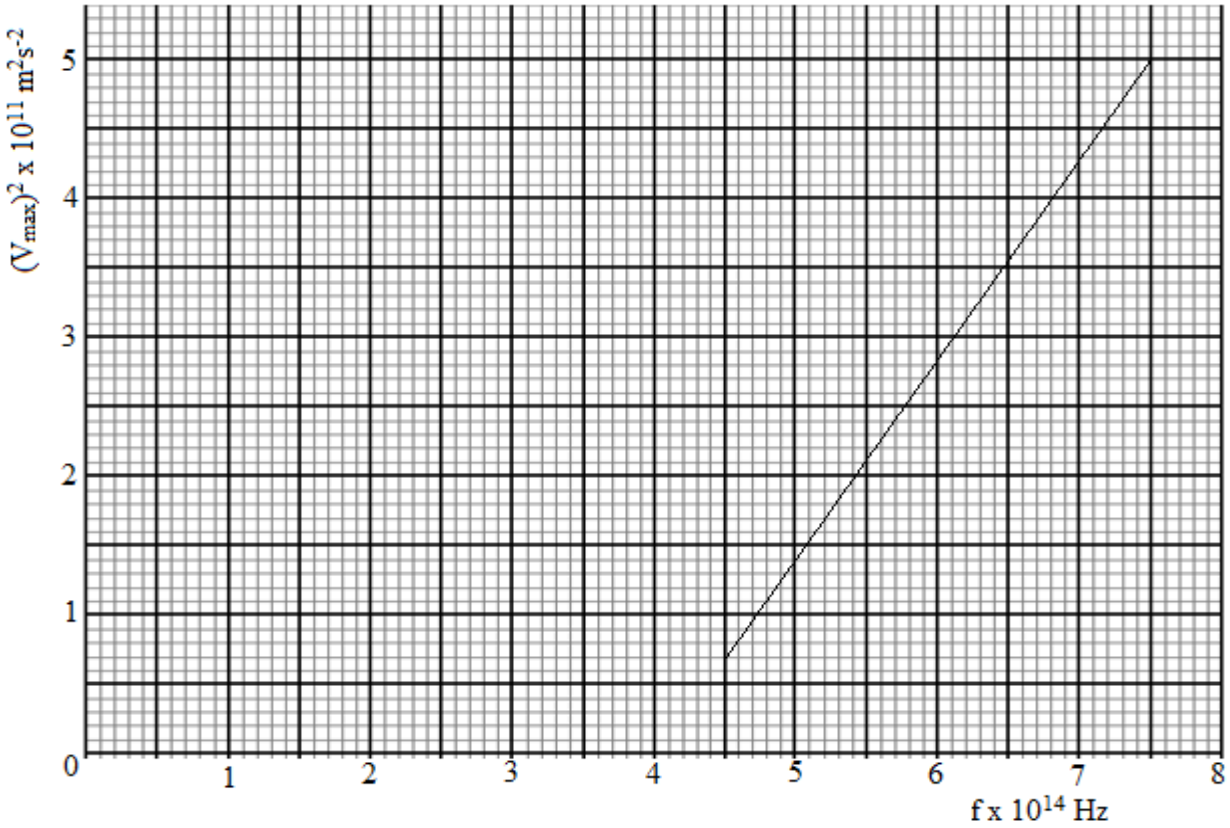


Figure 13

(i) Determine the slope of the graph. **(2 mks)**

The equation of the line is $V^2 = \frac{2h}{m} f - \frac{2h}{m} f_o$ where m = 9.11 x 10^{-31} kg

(ii) From the graph determine the:

(I) minimum frequency of the radiation that will cause emission of electrons from the zinc surface. **(1 mark)**

(II) Planck's constant. **(2 mrks)**

(III) minimum amount of energy required to just emit electrons from the zinc surface. **(2 marks)**

19. Figure 14 shows a set up for observing interference of waves from two sources S_1 and S_2. The points C and D represent positions of the constructive and destructive interference respectively as observed on the screen.



Figure 14

(a) If the observation was made in a ripple tank, describe:

(i) How the two sets of coherent waves were produced. **(2 marks)**

(ii) How the constructive and destructive interferences are identified. **(1 mark)**

(b) Explain how the constructive interference C and destructive interference D patterns are produced.

(2 marks)

(c) Draw:

(i) The line joining all points where waves S_1 and S_2 have travelled equal distance. Label it A.

(1 mark)

(ii) The line joining all points where waves from S_2 have travelled one wavelength further than the waves from S_1. Label it B. **(1 mark)**

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KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

232/3 Physics (Practical) Paper 3

Time: 2½ Hours

SCHOOL…… SIGN……

CONFIDENTIAL

INSTRUCTIONS TO SCHOOLS

The information in this paper is to enable the head of the school and the teacher in charge of Physics to make adequate preparations for the Physics practical examination. NO ONE ELSE should have access to this paper or acquire knowledge of its contents.

The teacher in charge of physics should NOT perform any of the experiments

Utmost care must be taken when handling the confidential.

Each candidate should be provided with the following:

Question One

- Concave mirror (*of focal length =10cm*)
- Mirror holder labeled **M**
- Metre rule
- Candle *(when the candle is lit.it, the flame and the mirror mounted on the holder should be of the same height)*
- White screen **S**

Question Two

- 100ml beaker
- A complete retort stand.
- Access to water.
- Stop watch.

- One 50ml burette with a tap
- Watch glass*(of diameter approximately 7.5cm)*
- Plane mirror *(of dimensions of atleast 5cm by 5cm)*
- Some plasticine
- Piece tissue paper
- Stop watch.
- A spring and with a pointer *(length about 7.5cm without pointer, diameter 1cm and spring constant between 5.0N/m to 10.0N/m.)*
- A 100g masses labeled **M**
- Metre rule
- Vernier caliper

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

232/3 Physics (Practical) Paper 3

Time: 2½ Hours

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

INSTRUCTIONS TO THE CANDIDATES:

a) *Write your **name**, **school** and **Index number** in the spaces provided at the top of this page*

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

c) *Answer all questions in the spaces provided*

d) *You are supposed to spend the first 15 minutes of the 2 ½ hours allowed for this paper reading the whole paper carefully before commencing your work.*

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

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

g) *Non- programmable silent **electronic calculator** and **KNEC Mathematical tables** and electronic calculators may be used except where stated otherwise.*

FOR EXAMINERS USE ONLY

Question 1	a	e	f	g (i)	g (ii)	Total
Maximum Score	5	6	4	3	2	20
Candidate's Score						

Question 2	Part A			Part B			Total
	a	e	f	c	d	e	
Maximum Score	3	6	3	1	3	4	20
Candidate's Score							

For Marking Schemes Contact 0746 222 000 / 0742 999 000

Question One

You are provided with the following apparatus:

- Concave mirror
- Mirror holder **M**
- Metre rule
- Candle
- White screen **S**

Proceed as follows;

a) i) Focus a distance object to the screen **S** and measure its image distance f_1

f_1=_____ cm **(1mark)**

ii) Set the apparatus as shown figure 1

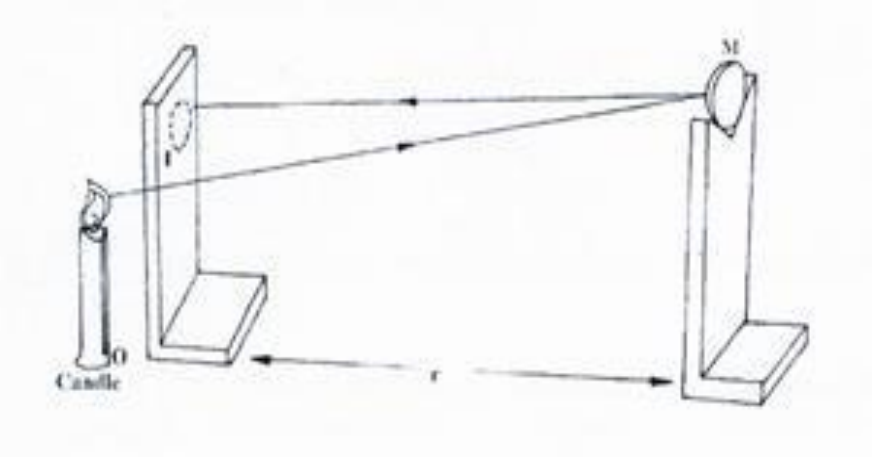

Fig 10

Place the screen S and candle besides and on the same line to each other infront of the mirror the screen .Adjust the position of the mirror towards and away from the screen and candle until a sharp inverted image of the flame is focused on the screen.

Measure distance ***h*** the distance between screen **S** and mirror **M**

h =_____cm **(1 mark)**

iii) Determine the values of:

I $f_2 = \frac{h}{2}$ **(1mark)**

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……

II $f_o = \frac{f_1+f_2}{2}$ to **one decimal place** **(2marks)**

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b) Arrange the apparatus as shown in figure 2 below

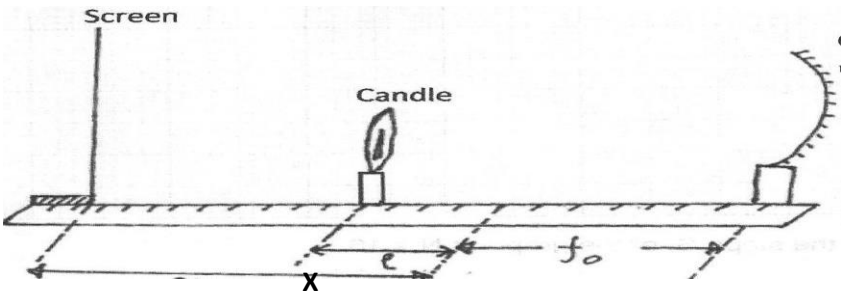


Figure 11

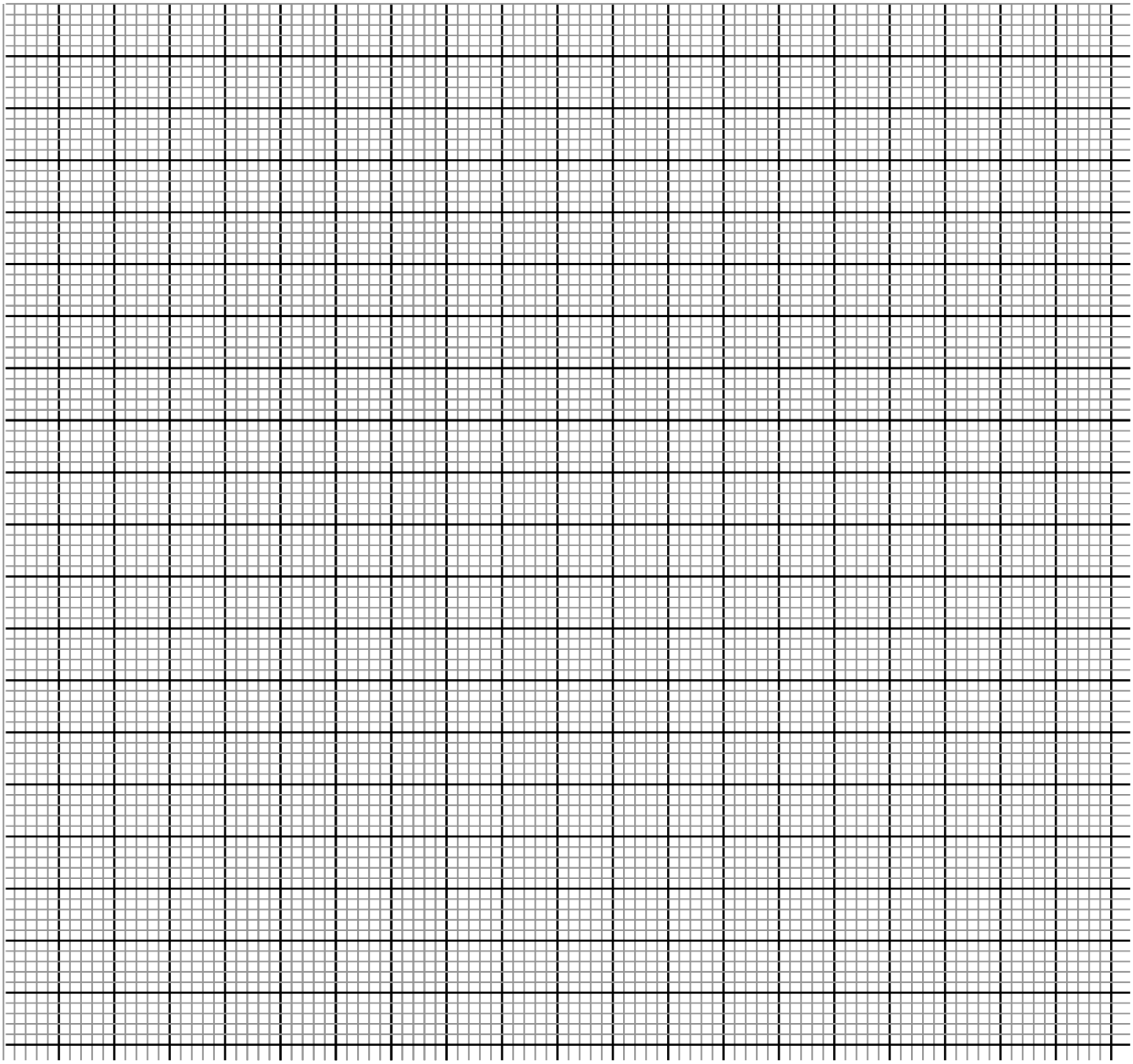
c) Place the candle at a distance $f_o + l$ from the mirror(for *l=3cm)*

d) Starting with the screen at a distance of 100cm from the mirror, gently move it towards the mirror until a sharp inverted image is formed. Measure and record the distance **x.**

e) Repeat step (a) to (d) for other values of l in the table 1 and record your results to complete the table 1 **(6marks)**

***l* (cm)**	**3**	**5**	**7**	**10**	**13**	**15**
x (cm)						
$\frac{1}{l}$ **(cm^{-1})**						

f) Plot a graph of **x** against $\frac{1}{l}$ **(4 marks)**



g) From the graph ;

(i) Determine the slope **S** of the graph **(3 marks)**

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(ii) Determine ***f*** given that $x = \frac{f^2}{l} + \frac{l(f+l)}{l}$ **(2 marks)**

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Question Two

Part A

You are provided with the following apparatus

- 100ml beaker
- A complete retort stand.
- Access to water.
- Stop watch.
- One 50ml burette with a tap
- Watch glass
- Plane mirror
- Some plasticine
- Piece tissue paper

Proceed as follows:

a) i) Clean the watch glass carefully and wipe dry using soft tissue paper. Place the mirror on the bench with the reflecting surface facing up. Put the watch glass on it with the centre of the watch glass resting on the centre of the mirror. Support it with plasticine.

(ii) Lower the end of burrete to a few cm above the watch glass. Run carefully and slowly from the burette water to the watch glass until volume of water on watch glass V=6.0cm^3

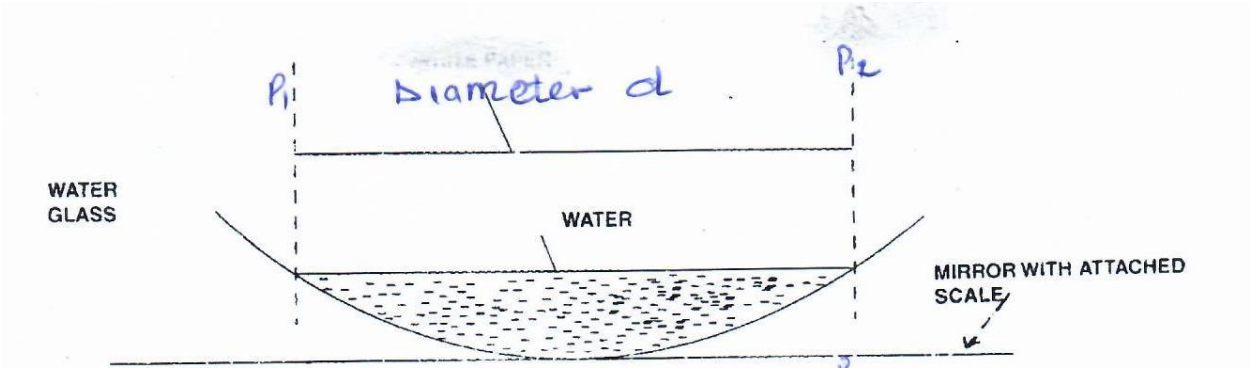

Figure 12

ii) Measure the distance **d** between the ends of the water on watch glass using vernier caliper

d = _____cm **(1 mark)**

iv) Determine R , given that V = $\frac{d^4}{20R}$ the radius of watch glass **(2 marks)**

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b) Set the apparatus as follows:

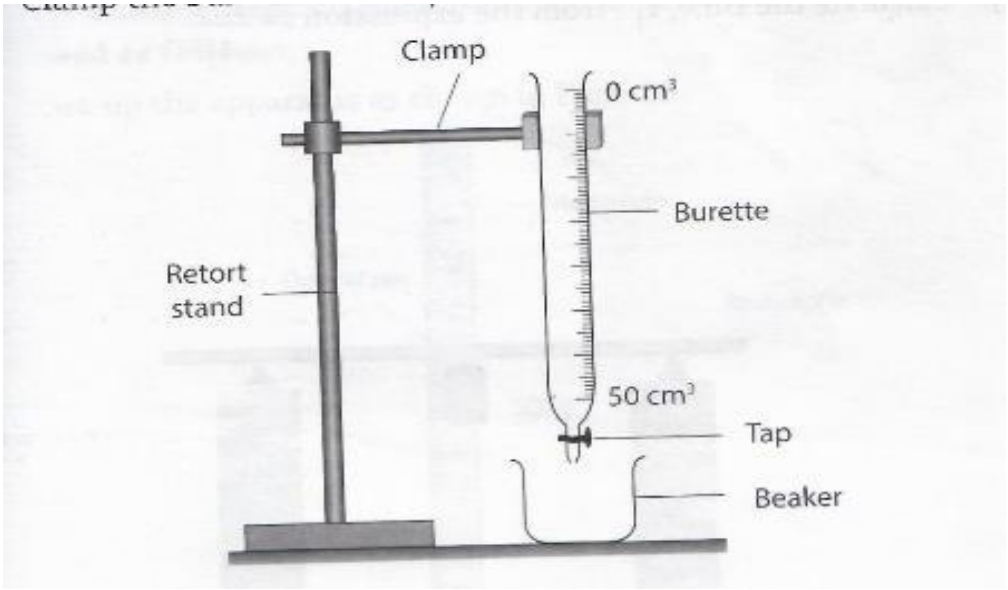

Figure 13

c) Fill the burette with water to up to zero mark .Place an empty beaker below the burette

d) Open the tap at once and start the stop watch simultaneously. Stop the stopwatch when the level of water in the burrete reaches 10.0cm^3 mark. Record the time tin the table 2 below.

e) Repeat the procedures (b) and (c) for other values of the burette readings in the table to complete table 1 below **(6 marks)**

Burette reading	10.0	15.0	20.0
Volume of water remaining in the burette V cm^3			
Log_{10} V			
Time t (s)			
$z = \frac{Log10\ V}{t}$			

i) Determine **β**, average value of **ƶ**. **(1mark)**

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ii) Given that **β** = $\frac{0.639}{x}$ determine ***x*** **(2marks)**

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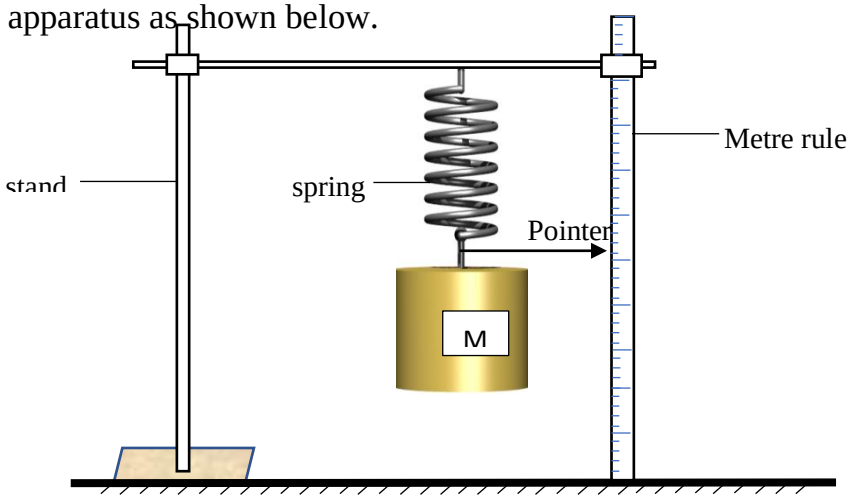
PART B

You are provided with the following apparatus

- A complete retold stand.
- Stop watch.
- A spring and with a pointer **spring constant of approximately 10.0N/m.**
- A 100g masses labeled **M**
- Metre rule

Proceed as follows

a) Set the apparatus as shown below.



b) Hang the unloaded spring and record the pointer readings

x_o……m.

c) Suspend one mass 100 g on the spring, record the new pointer reading x_1 and the extension of the spring, ***e***.

x_1.....***m***

e.....m**.** **(1mark)**

d) Displace the mass slightly downwards and release it to oscillate vertically. Time 20 oscillations and obtain time t and periodic time T

t ……..s **(1mark)**

T……. **s** **(2 marks)**

e) Use the equation below to determine constants **q and k**

I) $\mathbf{T = 2\pi\sqrt{\frac{e}{q}}}$ **(2marks)**

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II) $\mathbf{T_2 = 2\pi\sqrt{\frac{m}{K}}}$ where m is mass in kg **(2marks**

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KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

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, Adm. Number and stream in the spaces provided at the top of this page.

*(b) This paper consists of **TWO** sections: **Section I** and **Section II**.*

*(c) Answer **ALL** the questions in **Section I** and any **five** questions from Section **II**.*

***(d) Show all the steps in your calculation, giving your answer at each stage in the spaces provided below each question**.*

(e) Marks may be given for correct working even if the answer is wrong.

*(f) **Non-programmable** silent electronic calculators and **KNEC** Mathematical tables may be used, except where stated otherwise.*

For Examiner's Use Only

Section I

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	**Total**

Section II

17	18	19	20	21	22	23	24	**Total**

Grand Total

SECTION I (50 marks)

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

1. A normal year has 365 days while a leap year has 366 days. Find the number of days from the beginning of 1900 to end of 2000. **(2 marks)**

2. Find the exact value $2.\dot{2} + 3.2\dot{4}$ in its simplest form. **(3 marks)**

3. A mirror line maps point (4,3) onto (-2,7). Find the equation of the mirror line in double intercept form. **(4 marks)**

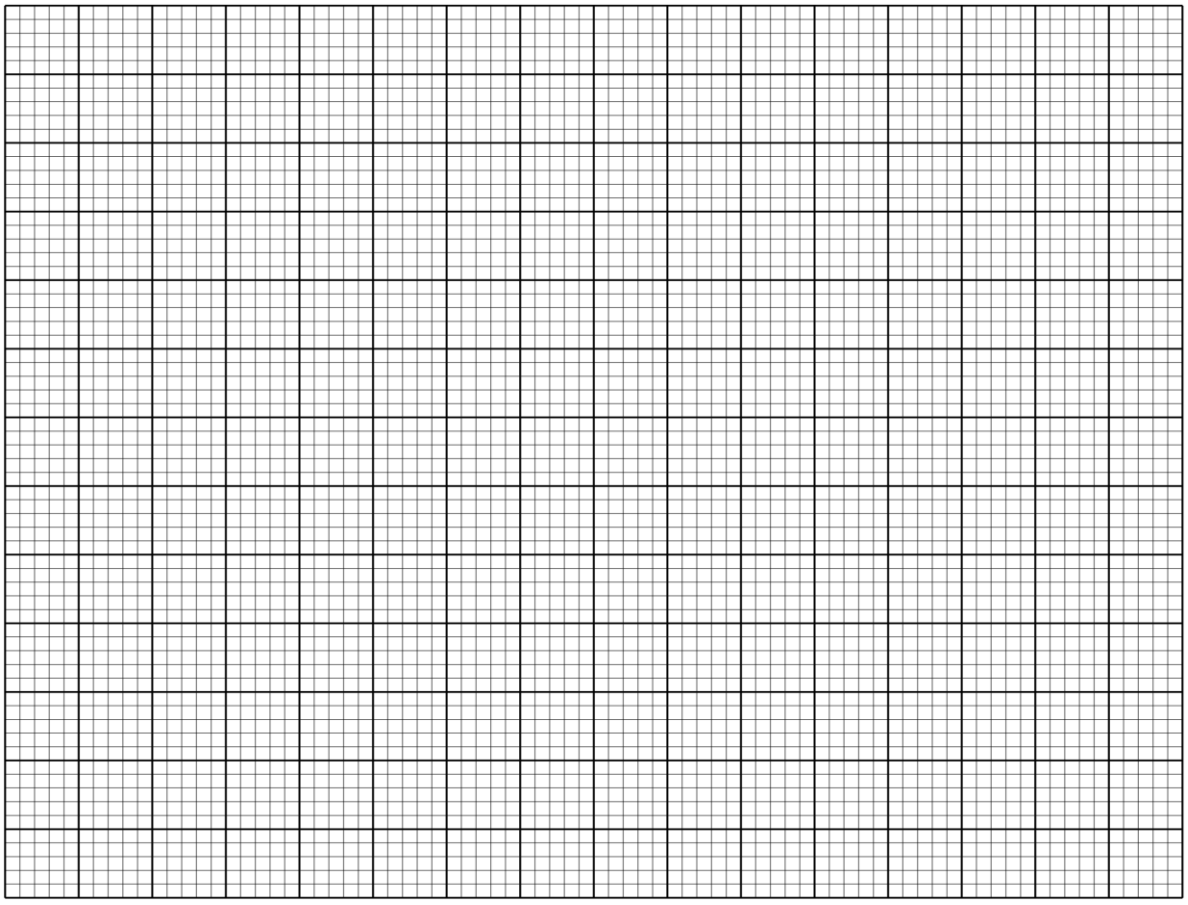
4. The average lap time of 3 cars in a racing competition is 36 seconds, 40 seconds and 48 seconds respectively. If they all start the race at the same time, find the number of times the slowest car will have been overlapped by the fastest at the time they all cross the starting point together again.

(4 marks)

5. The table below shows patients who attend a clinic in one week and were grouped by age as shown in the table below.

Age x years	$0 \leq x < 5$	$5 \leq x < 15$	$15 \leq x < 25$	$25 \leq x < 45$	$45 \leq x < 75$
Number of patients	14	41	59	70	15

On the grid provided draw a histogram to represent the distribution**.** **(3 marks)**



6. Three farmers, Formula-One, Method-Two and Way-Three are to share a grazing field. Formula-One has 5 cows, Method-Two has 7 cows and Way-Three has 4 cows. The three grazed for 3 days, 2 days and 4 days respectively. The owner of the field charged them ksh. 9000 which they were to share proportionately. How much money did Formula-One contribute? **(3 marks)**

7. a) Simplify the expression $\frac{3x+5}{2x} - \frac{2x+8}{3x}$. **(1 mark)**

b) Hence solve $\frac{3x+5}{2x} - \frac{2x+8}{3x} = \frac{4}{5}$ **(2 marks)**

8. A solid in the shape of a regular nonagon with distance from the centre to any vertex as 10cm and length 3.5m has a density of $3.2gcm^{-1}$. Calculate to 3 significant figures the mass of the solid in kilograms. **(4 marks)**

9. Find the exact value of $\frac{3^{n+1}-3\times3^{n-1}}{4\times3^{n+2}}$ **(3 marks)**

10. Use tables of natural tangents and square roots to find

a) $tan72.63^0$ **(2 marks)**

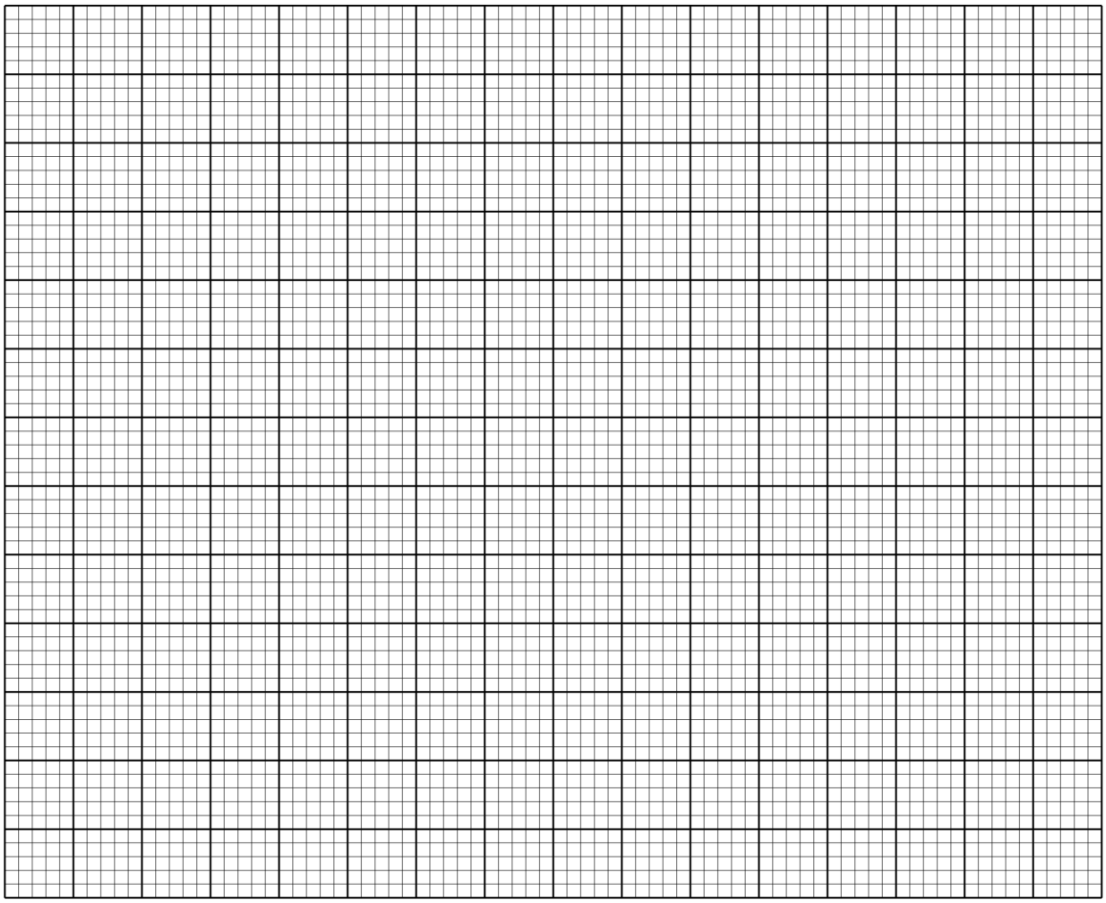
b) $\sqrt{0.5479}$ (**1 mark)**

c) Hence evaluate $tan72.63^0 + \sqrt{0.5479}$ **(1 mark)**

11. Given the column vectors $a = \begin{pmatrix} 2 \\ 4 \end{pmatrix}$, $b = \begin{pmatrix} -3 \\ -9 \end{pmatrix}$ and $c = \begin{pmatrix} 5 \\ -7 \end{pmatrix}$ and that $p = 2a - \frac{1}{3}b + c$. Find the magnitude of ***p*** to 3 significant figures. **(3 marks)**

12. Using the grid below, solve the simultaneous equations below **(3 marks)**

$$x + 3y = 9 \; and \; 3x + 2y = 13$$

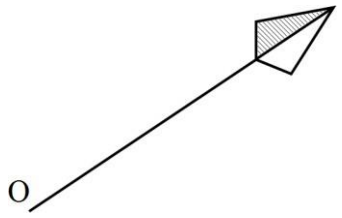


13. Under an enlargement with scale factor +2, point $P(2,9)$ is mapped onto $P'(-5,3)$. Determine the co-ordinates of the centre of enlargement. **(3 marks)**

14. A businessman sells two types of mobile phones Samsung and Nokia. The price of one Samsung and one Nokia is ksh. 2000 and ksh. 1600 respectively. He wishes to have at least 20 mobile phones. The number of Samsung phones, should be less or equal to the number of Nokia phones. He has ksh. 96 000 to spend.

15. If he buys **x** Samsung phone and **y** Nokia phones, write down the inequalities for the above situation. **(3 marks)**

16. Complete the figure below to show a rotational symmetry of order 3 about point O. **(3 marks)**



17. Solve for α in $2sin(2\alpha + 20) - 2cos(-\alpha - 30) = 0$ **(2 marks)**

SECTION II (50 MARKS)

(Answer ANY FIVE questions in the spaces provided)

18. The distance between Kipsigis Girls and Mbita School is 240km. During the Champions Jet 1 result release at Kipsigis Girls, Mbita School ferried their students using two buses, Scania and Isuzu. The Scania bus travelled 20km/h faster than the Isuzu bus whose speed was xkm/h.

a) Write an expression in terms of x for the time taken to cover the distance by;

i. Isuzu bus **(1 mark)**

ii. Scania bus **(1 mark)**

b) The Isuzu bus left Mbita at 7.00 am. and 36 minutes later, the Scania bus left Mbita for Kipsigis. The two vehicles reached Kipsigis Girls at the same time. Form an equation in x hence find the speed of Scania bus. **(5 marks)**

c) During the return journey, the two buses left Kipsigis at the same time and maintained their original speeds. The Scania bus developed a puncture after covering 100km which took 20 minutes to mend. If the two buses arrived at Mbita at the same time, find the average speed of Scania bus from the point where the tire was mended. **(3 marks)**

19. Sol is a sales lady with a company that pays her a basic salary of sh. 30,000 per month. She is also given commission on goods sold as follows,

0% for the first sh. 100,000

3% on the sales above sh. 100,000 up to sh. 300,000

7.5% of sales above sh. 300,000

a) During the month of May, she sold 400 calculators at sh. 1250 per calculator. Calculate:

i. How much she collected from the sale of calculators. **(2 marks)**

ii. Her total earnings for the month of May. **(3 marks)**

b) During the month of June, each calculator was sold at a discount of 16.8%. If Sol received a total of sh. 52,500 as her earnings, find the total number of calculators sold during the month of June.

(5 marks)

20. Two quadratic curves intersect at points $(-2,0)$ and $(4,0)$.

a) Determine the equations of the curves in the form $y = ax^2 + bx + c$. **(4 marks)**

b) Using trapezium rule with 6 strips, estimate the area bounded by the curves. **(4 marks)**

c) Estimate the area in (b) above using mid-ordinate rule with 3 trapezia. **(2 marks)**

21. A, B, C, D and E are such that B is 88 km on a bearing of 062^0 from A. C is 120 km on a bearing of 142^0 from B. D is $S38^0W$ of C at a distance of 90km. E lies directly South of A and directly west of D. Using a scale of $1:2{,}000{,}000$;

a) Determine the relative positions of A, B, C, D and E. **(4 marks)**

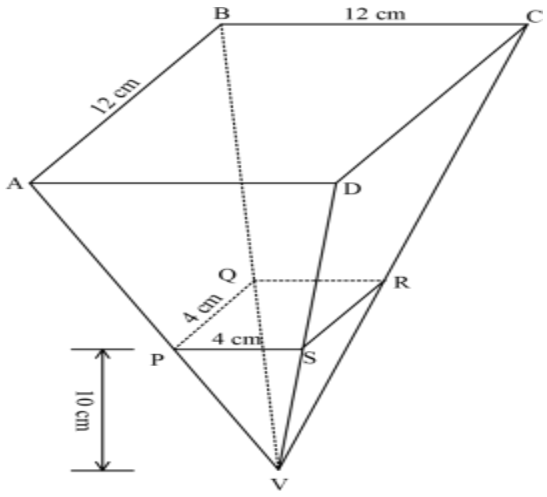
b) Find the bearing and distance of **(4 marks)**

i. E from C

ii. D from A

c) Find the area covered by A, B,C D and E in square kilometers. **(2 marks)**

22. The diagram below represents square based pyramid standing vertically. AB = 12 cm,PQ = 4 cm and the height of the pyramid PQSV is 10 cm.



(a) If PQRSV is a solid, find the volume of material used to make it.

(b) Find the;

(i) Height of the frustum ABCDPQRS.

(ii) Volume of the frustum.

(c) The liquid from a hemisphere is poured into ABCDPQRS. Find the radius correct to 4significant figures of the hemisphere if the liquid from hemisphere filled the solid completely.($\pi = 3.142$)

23. The equation of a curve is given as $y = x^3 - 6x^2 + 9x + 20$.

a) Find ;

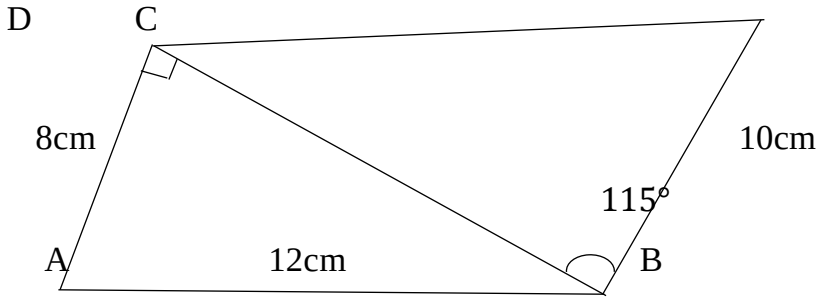
i. the $y - intercept$ of the curve. **(2 marks)**

ii. the stationary points of the curve. **(3 marks)**

b) For each stationary point in (a) (ii) above, determine its nature. **(2 marks)**

c) Sketch the curve. **(2 marks)**

23. The figure below shows a quadrilateral ABCD. ABD is a right angled triangle. Given that $AB = 12cm, BC = 10cm, AD = 8cm,$ and angle $DBC = 115°$.



Calculate to one decimal place:

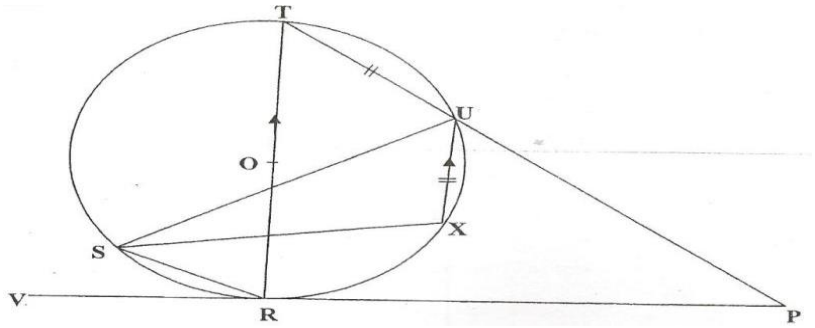
a) The length BD **(2marks)**

b) The length CD **(3marks)**

c) The angle BCD **(2marks)**

d) The area of the quadrilateral ABCD **(3marks)**

24. In the figure below, O is the centre of the circle TOR is the diameter and PRV is tangent to the circle at R.



Given that <SUR = 25^0, <URP = 60^0, TU = UX is parallel to the diameter; giving reasons calculate;

a) <TOU **(2 marks)**

b) <XUP **(2 marks)**

c) <STR **(2 marks)**

d) Reflex <SXU **(2 marks)**

e) <RPU **(2 marks)**

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

121/2 Mathematics Paper 2

Time: 2½ Hours

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

Instructions to Candidates

(g) Write your name, Adm. Number and stream in the spaces provided at the top of this page.

*(h) This paper consists of **TWO** sections: **Section I** and **Section II**.*

*(i) Answer **ALL** the questions in **Section I** and any **five** questions from Section **II**.*

***(j) Show all the steps in your calculation, giving your answer at each stage in the spaces provided below each question**.*

(k) Marks may be given for correct working even if the answer is wrong.

*(l) **Non-programmable** silent electronic calculators and **KNEC** Mathematical tables may be used, except where stated otherwise.*

For Examiner's Use Only

Section I

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	**Total**

Section II

17	18	19	20	21	22	23	24	**Total**

Grand Total

Section I (50 Marks)

Answer all the questions from this section

1. Solve the equation: $1 + 2\cos\left(\frac{2}{3}x + 30^0\right) = 0$ for $0^0 \leq x \leq 360^0$ **(3 marks)**

2. A rectangular block has a square base whose side is exactly 8 cm. Its height is measured to the nearest millimetre as 3.1 cm. Find the percentage error in calculating its volume. **(3 marks)**

3. If $a = \sqrt{7} + \sqrt{5}$ and $b = \sqrt{7} - \sqrt{5}$ find;

(a) The product ab **(1 mark)**

(b) $a^2 - b^2$ **(2 mrks)**

4. Draw line $AB = 3\ cm$, P is a variable point such that $< APB = 60^0$. Draw the possible location of point P. **(3 marks)**

5. Use the first four terms of the expansion $(1 - x)^8$ to evaluate $(0.95)^8$ correct to 3 decimal places**.** **(3 marks)**

6. Make y the subject of the formula $x = \left(\frac{x^2y-2}{4y-3}\right)^{\frac{1}{4}}$ **(3 marks)**

7. Tap A can fill a bath in 5 minutes. Tap B can empty a full bath in 10 minutes. Both taps are opened at the same time. After 5 minutes, tap B is closed. How long will it take tap A to fill the bath completely from then. **(3 marks)**

8. Kola bought a television set on hire-purchase by paying a down payment of ksh. 5000 and monthly instalments of ksh. 1250 for 2 years. If interest rate charged was 12% p.a, what is the carrying charge to the nearest hundreds? **(3 marks)**

9. Use matrix method to for x and y in the following sets of equation.

$2y - 3x = -4 \; and \; 2y = 5x$ **(3 marks)**

10. Solve for x given that $\log(5x - 10) - \log\left(\frac{x}{15}\right) = \log 40 - \log\left(\frac{x}{20}\right) \; where \; x \neq 0$ **(3 marks)**

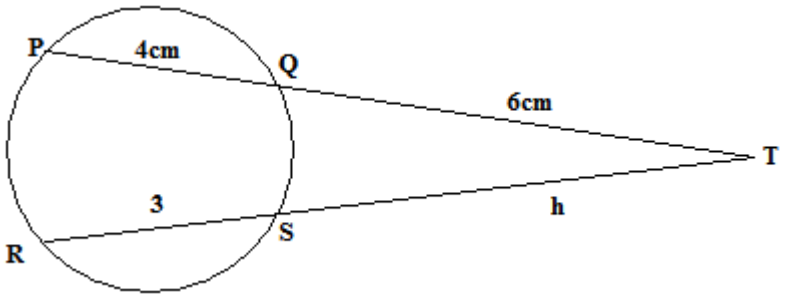
11. Nine men have heights of $185, 179, 181, 181, 173, 182, 184, 178 \; and \; 176$ all in cm. Using an assumed mean of 180, calculate the variance to 4 significant figures. **(3 marks)**

12. Given that $\boldsymbol{a} = \mathbf{10}\boldsymbol{i} + \mathbf{6}\boldsymbol{j} - \mathbf{7}\boldsymbol{k}$ and $\boldsymbol{b} = \mathbf{2}\boldsymbol{i} + \mathbf{8}\boldsymbol{j} + \mathbf{4}\boldsymbol{k}$, find $\left|2\boldsymbol{a} + \frac{1}{2}\boldsymbol{b}\right|$ **(3 marks)**

13. A farmer has 1000 m of fencing wire to fence a rectangular enclosure. Find the greatest possible area this farmer can fence. **(3 marks)**

14. The acceleration of a particle a m/s^2 is $2t - 3$ m/s^2. Given that the particle has a velocity of 2 m/s after 1 second. Find its displacement in the fourth second**.** **(4 marks)**

15. In the figure below, chords PQ and RS intersect externally at T.



Given that PQ = 4cm, QT = 6cm and RS = 3cm, find RT. **(3 marks)**

16. In a shooting practice three soldiers A, B and C aim at a target. The probabilities of A, B and C hitting the target are $^1/_3$, $^1/_4$ and $^1/_2$ respectively. The three soldiers shot at the target only once; one after the other. What is the probability that the target was hit only once**?** **(4 marks)**

Section II (50 Marks)

<u>Answer any five questions from this section.</u>

17. A ship sends a radio signal saying she is in distress and giving her position as $(60^0N, 45^0W)$. The signal is picked up by a ship A at $(60^0N, 30^0W)$ and a ship B at $(60^030'N, 45^0W)$. Both ships move at a speed of $25\ knots$.

(a) Calculate the length of time that each captain should indicate that it will take to come to the rescue, assuming that A sails due West and B sails due south. **(6 marks)**

(b) If the distressed ship is drifting due East at $5\ knots$. Find the new position she should radio call 16 hours later**.** **(2 marks)**

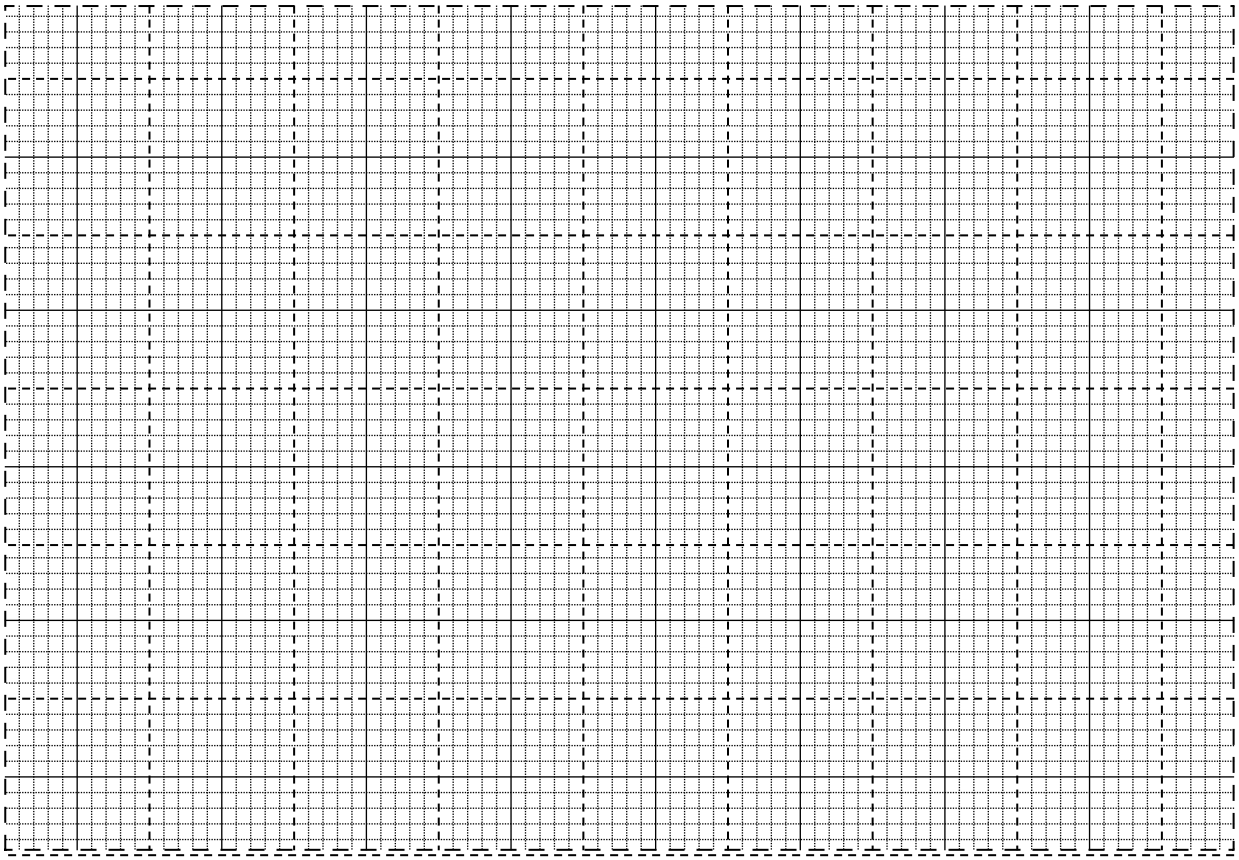
(c) Find the local time and day at $X(60^0N, 30^0W)$ when the local time at $Y(0^0, 30^0E)$ is 0045H on Monday. **(2 marks)**

18. Two hundred people were asked how much water they drink per day. The table below shows the results.

Amount of water (X litres)	No. of people	Cumulative frequency
$0 < x \leq 0.5$	8	
$0.5 < x \leq 1$	27	
$1 < x \leq 1.5$	45	
$1.5 < x \leq 2$	50	
$2 < x \leq 2.5$	39	
$2.5 < x \leq 3$	21	
$3 < x \leq 3.5$	7	
$3.5 < x \leq 4$	3	

(a) Develop a cumulative frequency **column** **(1 mark)**

(b) On the grid provided below, draw a cumulative frequency curve using a scale of 2 cm for one litre on the x – axis and 1 cm for 20 people in the y- axis**.** **(3 marks)**



(c) Using your graph;

(i) Find the median **(1 mark)**

(ii) The quartile deviation **(2 marks)**

(iii) Find the number of people who consumed at least 2.6 litres per day. **(1 mark)**

(iv) Find the percentage number of people who did not drink enough water given that the doctor recommends at least 1.8 litres per day. **(2 marks)**

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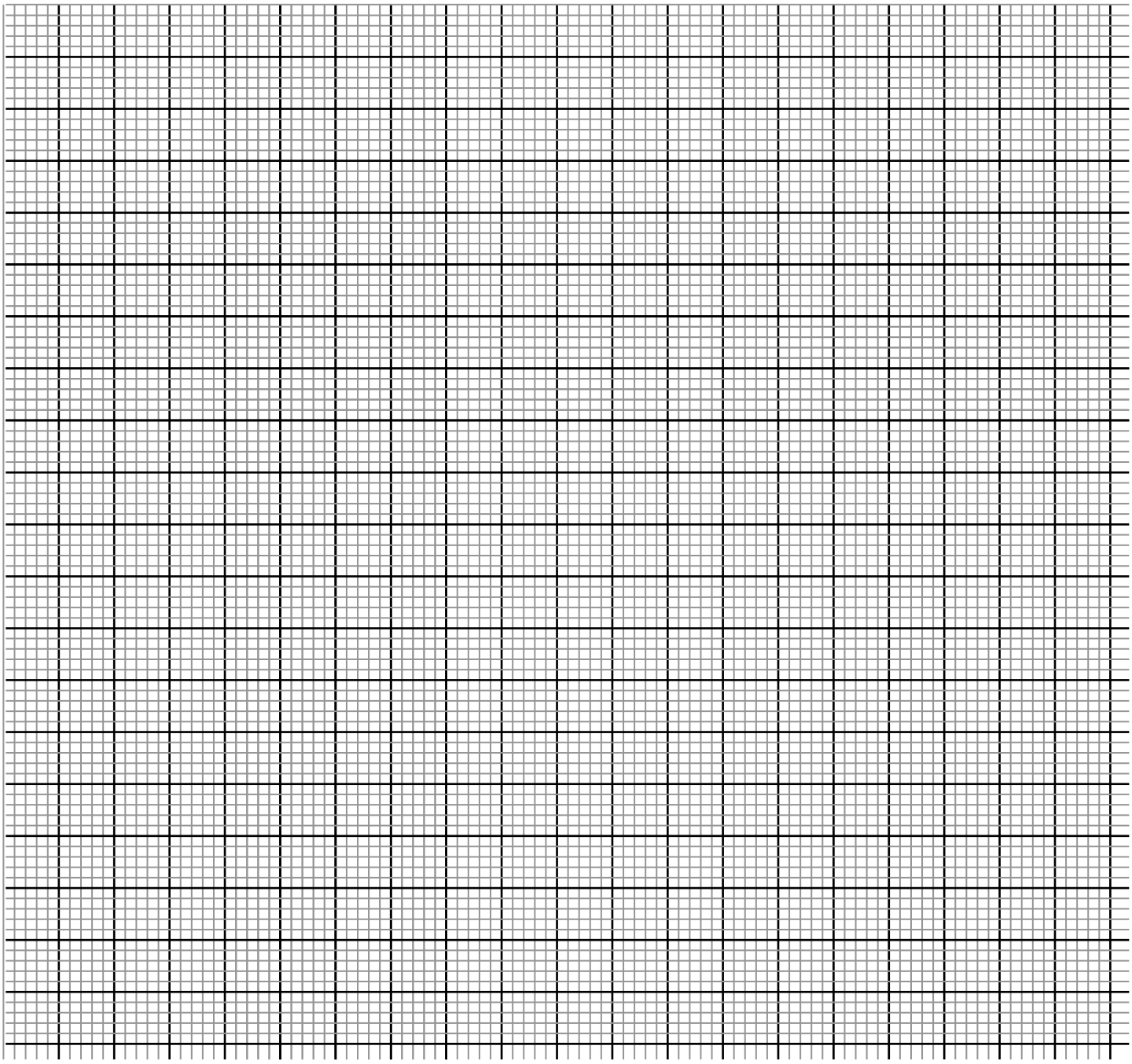
19. Triangle ABC with vertices $A(2,4), B(2,9)\ and\ C(6,2)$ undergoes a transformation T denoted by the matrix $\begin{pmatrix} -0.6 & 0.8 \\ 0.8 & 0.6 \end{pmatrix}$ to obtain triangle $A_1B_1C_1$.

(a) Draw triangle ABC and its image under T on the same axes. **(4 marks)**



(b) Describe the transformation T fully. **(1 mark)**

(c) Under another transformation M, triangle $A_1B_1C_1$ is mapped on to triangle $A_2B_2C_2$ with $A_2(-2,-4), B_2(-6,-7) and\ C_2(2,-6)$. Find the matrix of transformation M **(4 marks)**

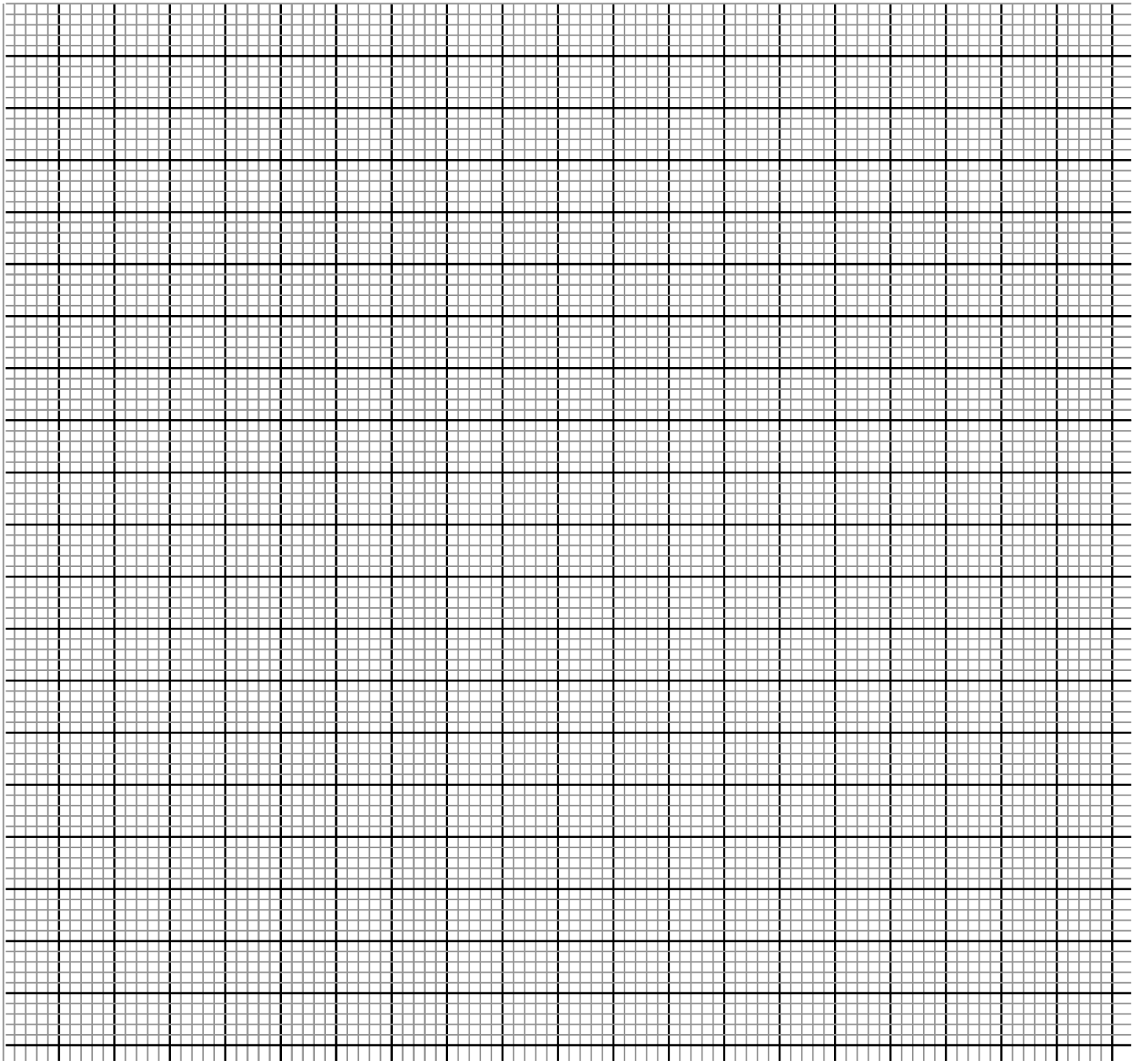
(d) Describe the single transformation that maps triangle $A_2B_2C_2$ onto triangle ABC **(1 mark)**

20. A relief organization has to transport at least 80 people and at least 18 tonnes of supplies to a site. There are two types of vehicles available; type A and type B. type A can carry 900 kg of supplies and 6 people while type B can carry 1350 kg of supplies and 5 people. There are at most 12 vehicles of each type available. By taking x to represent the number of vehicles of type A and y to represent the number of vehicles of type B.

(a) Write down all the four inequalities to represent the above information**.** **(4 marks)**

(b) On the grid provided, draw all the inequalities in (a) above. **(4 marks)**

(c) Use the graph in (b) above to determine the least number of vehicles of each type required at the site**.** **(2 marks)**



21. An arithmetic progression has the first term (a) and common difference (d).

(a) Write down the third, the ninth and twenty fifth terms of the AP. **(1 mark)**

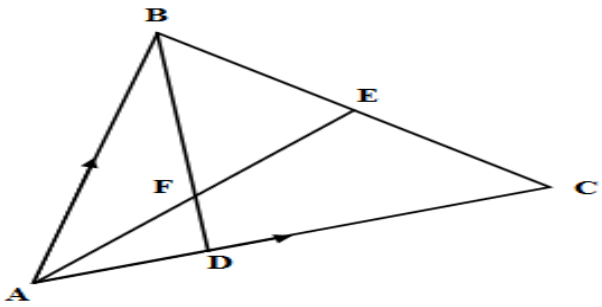
(b) The AP is increasing and the 3rd, 9th, and 25th terms form the first three consecutive terms of the GP. If the sum of the seventh term and twice the sixth terms of the AP is 78, calculate:

(i) The first term and the common difference of the A.P. **(4 marks)**

(ii) The common ratio of the GP **(2 marks)**

(iii) The sum of the first nine terms of the A.P. **(3 marks)**

22. 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) If AB = **b** and AC = **c,** find:

i) BD **(2 marks)**

ii) 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 of BD to BF. **(1 mark)**

23. The table below shows income tax rates

Monthly taxable pay (k£)	Rate of tax ksh per £
1- 435	2
436 – 870	3
871 – 1305	4
1306 – 1740	5
Excess over 1740	6

A company employee earns a monthly basic salary of Ksh 28,000. He is also entitled to the following monthly allowances: house allowance of Ksh 9000, a medical allowance of sh 2000 and a commuter allowance of shs 1480.

(a) Calculate his total income tax. **(5 marks)**

(b) He is entitled to a personal tax relief of Ksh 1056 per month. Determine the net tax. **(1 mark)**

(c) If he received a 50% increase in his total income, calculate the corresponding percentage increase on the income tax. **(4 marks)**

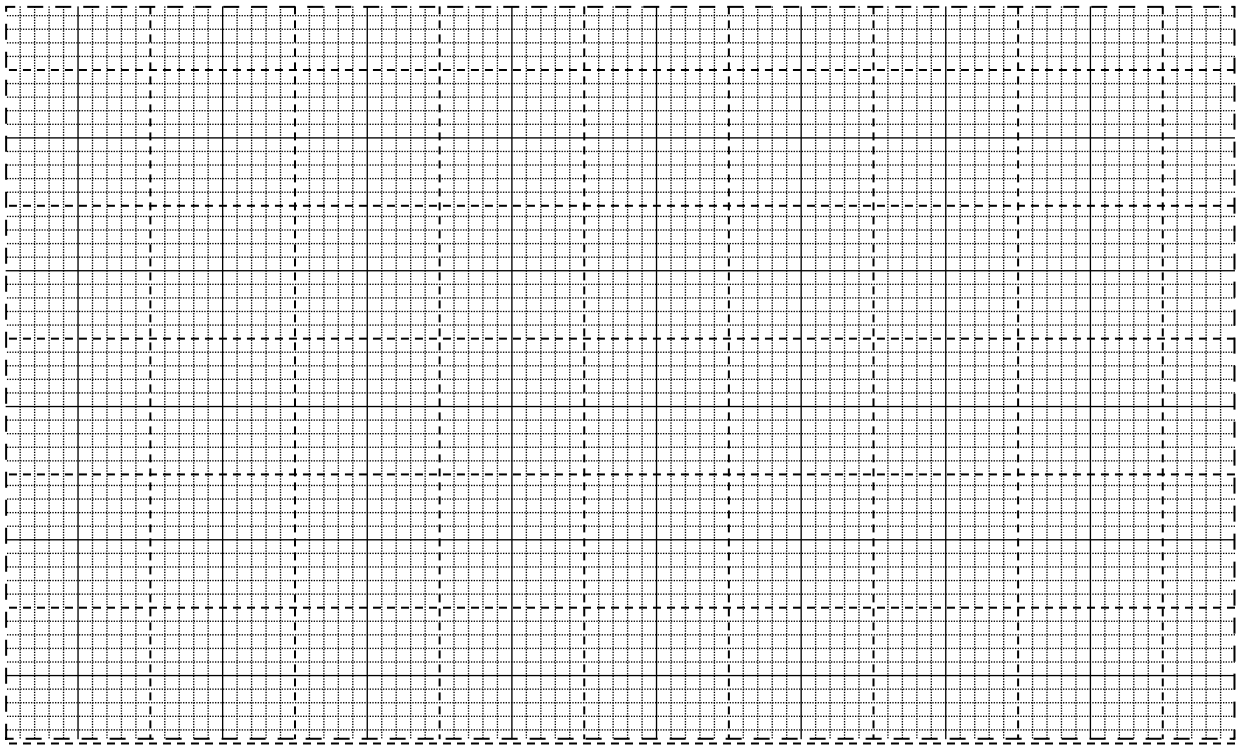
24. The equation of a curve is given $y = x^3 + 4x^2 - 2$

a) Determine the coordinates of the turning points of the curve, correct to 1 decimal place and state their nature **(4 marks)**

b) Use the equation of the curve to complete the table below. **(1 mark)**

x	-4	-3	-2	-1	0	1
y	-2		6	1		

c)i) On the grid provided, use the solutions in part (a) and the values in the table in part (b) to draw the curve for $-4 \leq x \leq 1$. **(3 marks)**



ii) Use the graph to solve the equation $x^3 + 4x^2 - 2 = 0$ **(2 marks)**

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

451/1 Computer Studies Paper 1

Time: 2½ Hours

NAME.....

SCHOOL..... **SIGN**.....

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

Kenya Certificate of Secondary Education.

INSTRUCTION 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
(c) *This paper consists of* ***two*** *sections:* ***A*** *and* ***B***
(d) *Answer all the questions in section* ***A***
(e) *Answer question* ***16*** *and other* ***three*** *questions from section* ***B***
(f) ***All*** *answers should be written in the spaces provided on the question paper.*

For Examiner's Use Only

Section	Question	Maximum Score	Candidate's Score
A	1-15	40	
B	16	15	
	17	15	
	18	15	
	19	15	
	20	15	
		Total Score	

SECTION A (40 Marks)

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

1. Give reasons why the following fire extinguishers are not recommended for use in the computer laboratory. **(2 Marks)**

i. Liquid based

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……

ii. Powder based

……

……

2. Differentiate between embedded and integrated computers **(2 Marks)**

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3. Describe the following terminologies as used in reference to visual display unit. **(4 Marks)**

a. Resolution

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b. Color depth

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4. Describe the following components of a spreadsheet: **(3 Marks)**

a. Worksheet

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……

b. Database

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c. Graphs

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5. a. State two threats to data and information. **(1 Mark)**

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b. List four types of risks posed by computer viruses to the computer systems. **(2 Marks)**

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c. State two measures against unauthorized access. **(2 Marks)**

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6. Automated production is an effect of ICT on employment, state three advantages of automated production. **(3 Marks)**

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7. Describe the following terms used in reference to the CPU: **(3 Marks)**

a. Fetch

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b. Decode

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c. Execute

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8. Explain three functions of an information system. **(3 Marks)**

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9. Describe the following terms as used in system development: **(4 Marks)**

i. Control

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ii. System entropy

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10. Define the term hot- swapping **(1 Mark)**

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11. State two functions of the power supply unit **(2 Marks)**

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12. Define peripheral device interfacing **(2 Marks)**

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13. Explain the following terms as used in the word processing. **(2 Marks)**

i. Footnote

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ii. Endnote

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14. a) Explain a situation when each of the following Desktop Publishing programs features may be used when creating a document **(2 marks)**

(i) Crop

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(ii) Transparency

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……

15. Name any two types of non-printable guides in DTP. **(2 Marks)**

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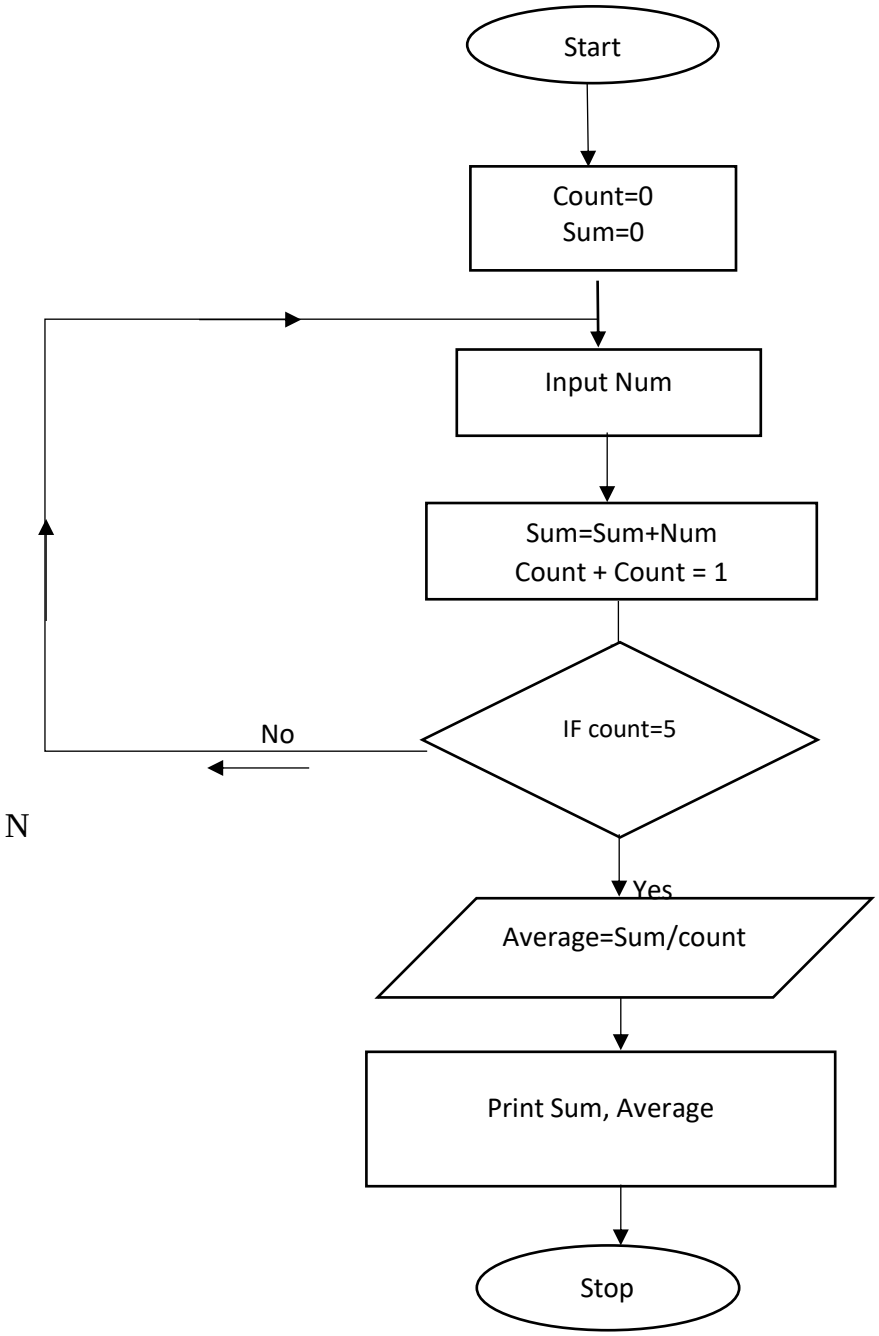
SECTION B (60 Marks)

*Answer question **16** and any other **three** questions in this section in the spaces provided*

16. A program is expected to accept 10 numbers calculate their sum and average and produce the output. Below is a flowchart that was used by KASSU students to represent the program. Study the flowchart below and answer the questions that follow:



a) The flowchart has errors in it. Identify any four errors that were made in the flowchart stating how each of them should be corrected. **(4 marks)**

b) Write a pseudocode for the corrected version of the above flowchart. **(7 marks)**

c) i) Give any two examples of fourth generation languages. **(2 Marks)**

ii) List two factors that need to be considered when selecting a programming language.(**2 marks)**

17. a) Outline two disadvantages of questionnaires as a data gathering techniques. **(2 marks)**

b) State three activities that take place during system implementation phase of SDLC. (**3 marks)**

c) Define the term Feasibility study as used in system development. **(1 mark)**

d. **Perform the following conversions**

i.Convert 111.010_2 to decimal number. **(3 marks)**

ii. $17^{4}/_{5}$ **(base 10)to binary** **(3 marks)**

iii. Distinguish between BCD and EBCDIC coding schemes **(2 mark)**

e. Give two reasons why a firm may decide to computerize its operations **(1 mark)**

18. a. Describe the following data types as used in spreadsheet. **(4 Marks)**

i. Labels

ii. Values

iii. Formulas

iv. Range

b. Differentiate between logical files and physical files. **(4 Marks)**

c. i. Define serial file organization **(1 Mark)**

ii. Name any two disadvantages of serial file organization **(2 Marks)**

d. Give two advantages of using a template in a word processor **(2 Marks)**

e. State two components found in an electronic Point-of-sale terminal. **(2 Marks)**

19.a. Describe the following types of software **(3 Marks)**

i. Proprietary software

ii. Shareware

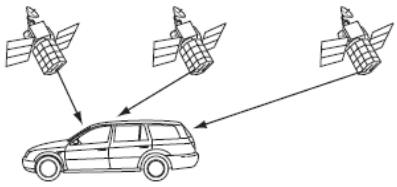
iii. Freeware

b. i, Define the term deadlock as used in operating system. **(1 Mark)**

ii. The diagram shows five operating system functions and five descriptions. Draw a line between each operating system function and its description. **(4mks)**

Function	Description
Interrupt	Many processes appear to run simultaneously
Utility	Data are temporarily held in a buffer waiting for an output device to access it
Memory Management	A signal that causes the operating system to take a specified action
Spooling	A program that performs a specific task required for the operation of a computer system
Multitasking	A process of assigning blocks of memory to programs running in a computer

c. Satellite navigation systems are used to give the vehicle driver directions.



i. How does the system know the exact position of the vehicle? **(3 Marks)**

ii. Give two advantages to the driver using this system. **(2 Marks)**

iii. Give two problems associated with satellite navigation systems. **(2 Marks)**

20. a. Define the following terms

i. Trouble shooting (**2 Marks)**

ii. Installation

b. Describe any two types of files used in operating systems. **(2 Marks)**

c. A database table, DEVICE, has been set up to record the electronic equipment used in a small business

Device ID	Device Type	User	Purchase Date	Purchase Price ($)	Portable
3	Desktop	Alan Swales	14/02/2017	1350.00	N
4	Laptop	Chantel Law	01/02/2016	1460.00	Y
5	Tablet	Abdula Saud	31/12/2016	1000.00	Y
6	Desktop	Abdula Saud	14/03/2017	1000.00	N
7	Laptop	Alan Swales	15/03/2016	1700.00	Y
8	Tablet	Taona Jaji	16/12/2016	470.00	Y

(a) The query-by-example grid below selects certain records.

Field:	User	Portable	Purchase Price ($)
Table:	DEVICE	DEVICE	DEVICE
Sort:	Ascending		
Show:	✓	☐	☐
Criteria:		Y	>1000
or:			

Show what would be the output from the query-by-example. **(2 Marks)**

(b) Complete the query-by-example grid below to select all Desktop devices that were either purchased before 31/12/2016 or cost under $1000. Only show the Device ID and Device Type.

(5 Marks)

Field:	Device ID	Device Type	Purchase Date	Purchase Price
Table:	DEVICE	DEVICE	DEVICE	DEVICE
Sort:				
Show:				
Criteria:				
Or:				

c. Differentiate between a primary key and an index key **(2 Marks)**

d. State the title of the ICT personnel in charge of regularly updating the organization's website.

(1 Mark)

e. What program is the personnel above likely to use to accomplish his tasks? **(1 Mark)**

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

451/2 Computer Studies Paper 2

Time: 2½ Hours

(PRACTICAL)

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

Instructions to candidates

(a) *Indicate your name and index number at the top right hand corner of each printout*

(b) *Write your name and index 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*

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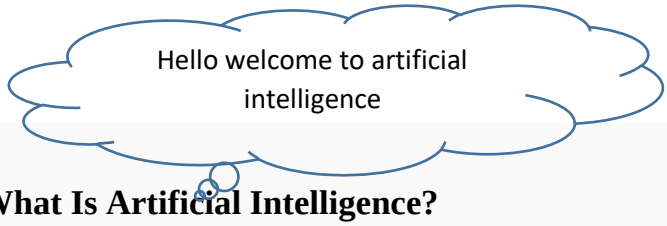
QUESTION ONE



What Is Artificial Intelligence?

Artificial Intelligence is the field of developing computers and robots that are capable of behaving in ways that both mimic and go beyond human capabilities. AI-enabled programs can analyze and contextualize data to provide information or automatically trigger actions without human interference.

What Is Machine Learning?

Machine learning is a pathway to artificial intelligence. This subcategory of AI uses algorithms to automatically learn insights and recognize patterns from data, applying that learning to make increasingly better decisions.

By studying and experimenting with machine learning, programmers test the limits of how much they can improve the perception, cognition, and action of a computer system.

Deep learning, an advanced method of machine learning, goes a step further. Deep learning models use large neural networks — networks that function like a human brain to logically analyze data — to learn complex patterns and make predictions independent of human input.

How Companies Use AI and Machine Learning

To be successful in nearly any industry, organizations must be able to transform their data into actionable insight. Artificial Intelligence and machine learning give organizations the advantage of automating a variety of manual processes involving data and decision making. Some expressions including basic numbers like squares of numbers e.g 23^2 and base value of numbers like $H4C_{16}$ can be processed.

By incorporating AI and machine learning into their systems and strategic plans, leaders can understand and act on data-driven insights with greater speed and efficiency. The table below shows the company's per country that have implemented AI and machine language and the expected growth rate in five years time.

For Marking Schemes Contact 0746 222 000 / 0742 999 000

Country	NO. of AI machines	% growth	Increment per year
Kenya	50	5%	
Uganda	45	4.5%	
Tanzania	48	3%	
Zimbabwe	30	3%	
somalia	25	2%	

a) Using a word processor application, create the above document as it appears and save it as **KASU 1 exam** **13 marks**

b) Insert the AutoShape as it appears **2 marks**

c) Spell check your document 1 mark

d) Copy the above document into a new word document and save it as **Kasu Final exam** **3 marks**

e) Format all the titles in the document as follows:

i. Font type Aerial 1 mark

ii. Font size 14.5 1 mark

iii. Font colour Black, text 1 1 mark

iv. Double underline 1 mark

v. Bold italic 1 mark

vi. Character spacing Expanded 150% 2 marks

f) .Insert a dropped drop cap to 2 lines in the first paragraph starting with the word "artificial intelligence" and in margin drop cap to 2 lines in the second paragraph starting with the word "machine learning" 2 marks

g) Find the abbreviation AI and replace it with artificial intelligence 2 marks

h) Insert two columns in the 2nd last paragraph starting with "to be successful" with a line in between them 2 marks

i) Format the titles in the table as follows:

i. Centre align all the titles 1 mark

ii. Change the text direction of the titles on the table to 90^0 1 mark

iii. Double strike through 1 mark

iv. Bold 1 mark

j) Enter a formular to get the yearly increament for Kenya 2 marks

k) Enter a formula to calculate the total NO. of AI machines in the five countries above 2 marks

l) Insert a row above row one, merge all the cells and enter an appropriate title for the table 3 marks

m) Insert the header of your document as **© your name** and footer as your **class and admission number** 2 marks

n) Insert a caption with the title Artificial intelligence in East Africa 2 marks

o) Print KASU1 exam and Kasu Final exam 2 mark

QUESTION TWO

The table below shows a soccer league at the end of the season. The league comprises of 15 teams and each played 29 matches to close the season. Using a spread sheet program, represent the data and answer the questions below:

TEAM	COUNTY	MATCHES PLAYED	MATCHES WON	MATCHES DRAWN	MATCHES LOST	POINTS	TEAM POSITION	TEAM AWARDS
SHIRA FC	NORTH	29	10	16				
SATIMA FC	SOUTH	29	6	20				
NANGA FC	EAST	29	17	5				
LOGAN FC	NORTH	29	5	15				
KILIMANJARO	EAST	29	10	11				
KILIMAMBOO	WEST	29	20	2				
KARISIMBI	WEST	29	4	19				
KAMET UNITED	WEST	29	8	20				
GESSI	SOUTH	29	12	7				
FUJI FC	SOUTH	29	14	9				
EVEREST AC	EAST	29	11	7				
EMIN FC	EAST	29	8	3				
ELGON	EAST	29	28	1				
BROAD PEAK	WEST	29	22	6				
ATLAS UNITED	WEST	29	15	9				

a. Create a workbook called ***LEAGUE_RESULTS*** (1 Mark)

b. Using a customised ***INPUT FORM***, enter the following data into a worksheet and format it exactly as it appears. (10 Marks)

c. Set data validation criteria to ensure that matches won, drawn or lost do not exceed 29. A message ***"INCORRECT!"*** should be displayed in case the validation rule is violated. (4 Marks)

d. d. Rename the worksheet as ***LeagueTable*** **(2 Marks)**

e. Given that the total number of games played by each team in the season is 29, determine the number of games lost by each team. **(2 Marks)**

f. f. Calculate the points obtained by each team during the season given that: - (3 Marks)

Results	**Points**
Win	3
Draw	1
Loss	0

g. Determine each team's position in the league given that the team with the highest number of points becomes the first position in the league. (4 Marks)

h. Determine the number of teams that garnered above 55 points in the league. Label the cell appropriately. **(3 Marks)**

i. Given that teams get cash awards based on their positions according to the table below. Apply an appropriate formula to determine the team awards. (4 Marks)

Team Position	**Team Award**
1	$ 1,000,000
2	$ 500,000
3	$ 250,000
4	$ 125,000
Others	$ 0

j. Sort the data in ascending order by ***Team Position.*** **(1 Mark)**

k. Copy the worksheet ***LeagueTable*** to a new worksheet and rename it as ***CountyTeams*** **(1 Mark)**

l. Using S*ubTotals* function in ***CountyTeams*** worksheet, determine the Average Points of all the teams in each county (5 Marks)

m. Using worksheet ***LeagueTable*** plot a column graph on its own worksheet renamed as ***LeagueAnalysis*** showing the TeamName and TeamPoints only. (7 Marks)

n. Print the following: **(3 Marks)**

a. Formulas only in ***LeagueTable*** worksheet

b. ***CountyTeams*** worksheet

c. ***LeagueAnalysis*** worksheet

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

441/1 Home Science Paper 1

Time: 2½ Hours

(THEORY)

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

Instructions to candidates

a) Write your name and admission no in the spaces provided.

b) Answer all the questions in section A and B and any two from section C.

c) Answers to all questions must be written in the spaces provided.

For examiners use only.

Section	*Question*	*Maximum score*	*Candidates score*
A	*1-40*	*40*	
B	*41*	*20*	
C	*42-44*	*40*	

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SECTION A (40 MARKS) (Answer *all the questions in the spaces provided.)*

1. Mention **two** reasons for preserving **food** **(1mark)**

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……

……

2. List **two** suitable materials used for freezing food **(1mk)**

……

……

3. Highlight **two** importance of blanching vegetables before freezing. **(1mk)**

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4. Give two points on what food presentation involves. **(1mk)**

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5. Define the term a meal **(1mk)**

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6. Retarded growth is a sign of **two** common nutritional disorders, name them. **(1mk)**

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7. List **two** functions of vitamins D in the body. **(1mk)**

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8. Name **two** methods of frying foods. **(1mk)**

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9. List down **two** causes of food poisoning. **(1mk)**

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10. Mention **two** methods of softening temporary hard water for laundry. **(1mk)**

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11. Name **two** vegetable fibres used to make brooms and brushes. **(1mk)**

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12. Mention **two** examples of grease absorbents. **(1mk)**

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13. Name **two** methods of making soap. **(1mk)**

……

……

14. Mention **two** types of patching done when reinforcing worn out garments. **(1mk)**

……

……

15. Define the term Care label. **(1mk)**

……

……

16. List **two** solutions used to remove laundry blue stains. **(1mk)**

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17. State **two** improvised storage facilities used to store clothes. **(1mk)**

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18. List **two** examples of washing equipment. **(1mk)**

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……

19. State **two** importance of safe parenthood. **(1mk)**

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20. Highlight **two** benefits of breastfeeding to the mother. **(1mk)**

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21. State **two** factors that may lead to artificial feeding. **(1mk)**

……

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22. What is the name of the first milk given to a baby immediately after birth? **(1mk)**

……

……

23. Mention **two** suitable supplementary food for an **infant** **(1mk)**

……

……

24. List two types of play in child development. **(1mk)**

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25. Name **two** basic instructions on using **medicine** **(1mk)**

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26. Outline **two** rights of a consumer. **(1mk)**

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27. Give the main effects of inflation to country. **(1mk)**

……

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28. Name **two** methods of buying goods and services. **(1mk)**

……

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29. List **two** examples of electronic media. **(1mk)**

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……

30. What is the function of weight and measures department**.** **(1mk)**

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31. Outline two factors that affect the budget. **(1mk)**

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32. Discuss family set up as a factor that influence consumer buying. **(1mk)**

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……

33. Identify **two** characteristics of silk during burning test**.** **(1mk)**

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……

34. Name two seams that are self-neatened **(1mk)**

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35. Name **two** types of cuffs used to finish sleeve. **(1 mk)**

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36. Differentiate between facings and interfacings. **(1mk)**

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……

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37. Outline **two** methods of finishing necklines. **(1mk)**

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38. Highlight **two** body measurements taken around the body. **(1mk)**

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39. Name two types of pleats**.** **(1mk)**

……

……

40. Management of fullness in a garment ensures a good fit and shape, name other two reasons for such. **(1mk)**

……

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SECTION B (20 MARKS)(ANSWER ALL THE QUESTIONS)

41. You are at home over the weekend discuss how to ;

a) Launder a dark coloured jumper by spotting **(7mks)**

b) Clean a fast coloured canvas bag **(7mks)**

c) Clean a polished side table in the dining table **(6mks)**

SECTION C (40 MARKS) (*ANSWER ANY TWO QUESTION IN THIS SECTION)*

42.

a) Outline **four** causes of a heavy texture in rubbed in cake mixture. **(4mks)**

b) State **four** rules to observe in stain removal. **(4mks)**

c) Explain how to take care of a lactating mother. **(4mks)**

d) State **four** functions of the Kenya consumer association**.** **(4mks)**

e) Describe how to prepare and attach a square patch pocket of a shirt. **(4mks)**

43.

a) Explain briefly **four** reasons for cooking food. **(4mks)**

b) Chemical disinfectants are use to kill germs on fabrics, state **four** points to observe when using them**.** **(4mks)**

c) Suggest **four** ways of making simple play items used for playing by children.**(4mks)**

d) Discuss the following forms of credit buying **(4mks)**

i. Hire purchase

ii. Simple non instalment credit

e) Describe the method of working a plain seam **(4mks)**

44.

a) State **four** disadvantages of using left over foods. **(4mks)**

b) Highlight **four** reasons for sufficient ventilation in a room **(4mks)**

c) state **four** reasons for specialized care in Childs health card **(4mks)**

d) List **four** sources of information to the consumer **(4mks)**

e) Outline **four** points to observe when taking body measurements **(4mks)**

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KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

441/2 Home Science Paper 2

Time: 2½ Hours

SCHOOL…… SIGN……

Kenya Certificate of Secondary Education.

441/2

HOME SCIENCE

CLOTHING CONSTRUCTION

PAPER 2

CONFIDENTIAL

1. Plain light weight cotton fabric 70 by 90cm..
2. Sewing thread to match the fabric.
3. Elastic 18cm long by ½ cm wide
4. Bodkin/ safety pin
5. 1 large envelope.

KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

441/2 Home Science Paper 2

Time: 2½ Hours

NAME.....

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Kenya Certificate of Secondary Education.

441/2

HOME SCIENCE

CLOTHING CONSTRUCTION

PAPER 2

A pattern of a blouse is provided. You are advised to study the sketches, instructions and the layout carefully before you begin the test.

MATERIALS PROVIDED

1. Pattern pieces
   - A - FRONT BODICE
   - B - BACK BODICE
   - C - SLEEVE
   - D - FRONT YOKE
   - E - COLLAR
   - F - FRONT FACING
   - G - BACK NECK FACING

2. Plain light weight cotton fabric 70 by 90 cm.
3. Sewing thread to match the fabric.
4. Elastic cord 18 cm long by $^1/_2$cm wide
5. Safety pin/bodkin
6. 1 large envelope.

THE TEST

Using the materials provided, cut out and make up the **LEFT HALF** of the blouse to show the following.

1. Cutting out. (18mks)
2, Working a double pointed dart at the back bodice (7mks)
3, Working of the inverted pleat on the front yoke (3mks)
4. Joining the front bodice to the front yoke using an overlaid seam ($8^1/_2$mks)
5. Joining the joint front bodice to back bodice at the shoulder using double stitched seam. (6mks)
6. Joining the joint front bodice to back bodice at the side using an open seam. (4mks)
7. Joiningthe front facing to the back neck facing and neatening the free edge of the joined facing ($6^1/_2$mks)
8. Preparation of the interfaced collar ($3^1/_2$mks)
9. Usethe joined facing to neaten the front opening and attach the collar by sandwiching method. ($7^1/_2$mks)
10. Working of the sleeve to include.
    a) Management of fullness at the crown. ($2^1/_2$mks)

b) Making of the underarm seam using French seam. ($7^1/_2$mks)

c) Joining of the sleeve to the garment at the armhole**.** ***(Do not trim, do not neaten)***(6mks)

d) Working of the elastic casing at the lower edge of the sleeveand insertingthe elastic cord. **Do not seal the opening used to insert the cord** ($4^1/_2$mks)

11. Presentation. ($5^1/_2$mks)

NOTE:

At the end of the test, firmly sew on to your work on a single fabric a label bearing your name and admission number. Remove needles and pins from work. Then fold your work carefully and place it in the envelope. **DO NOT PUT SCRAPS OF MATERIALS IN THE ENVELOPE AND DO NOT SEAL THE ENVELOPE.**

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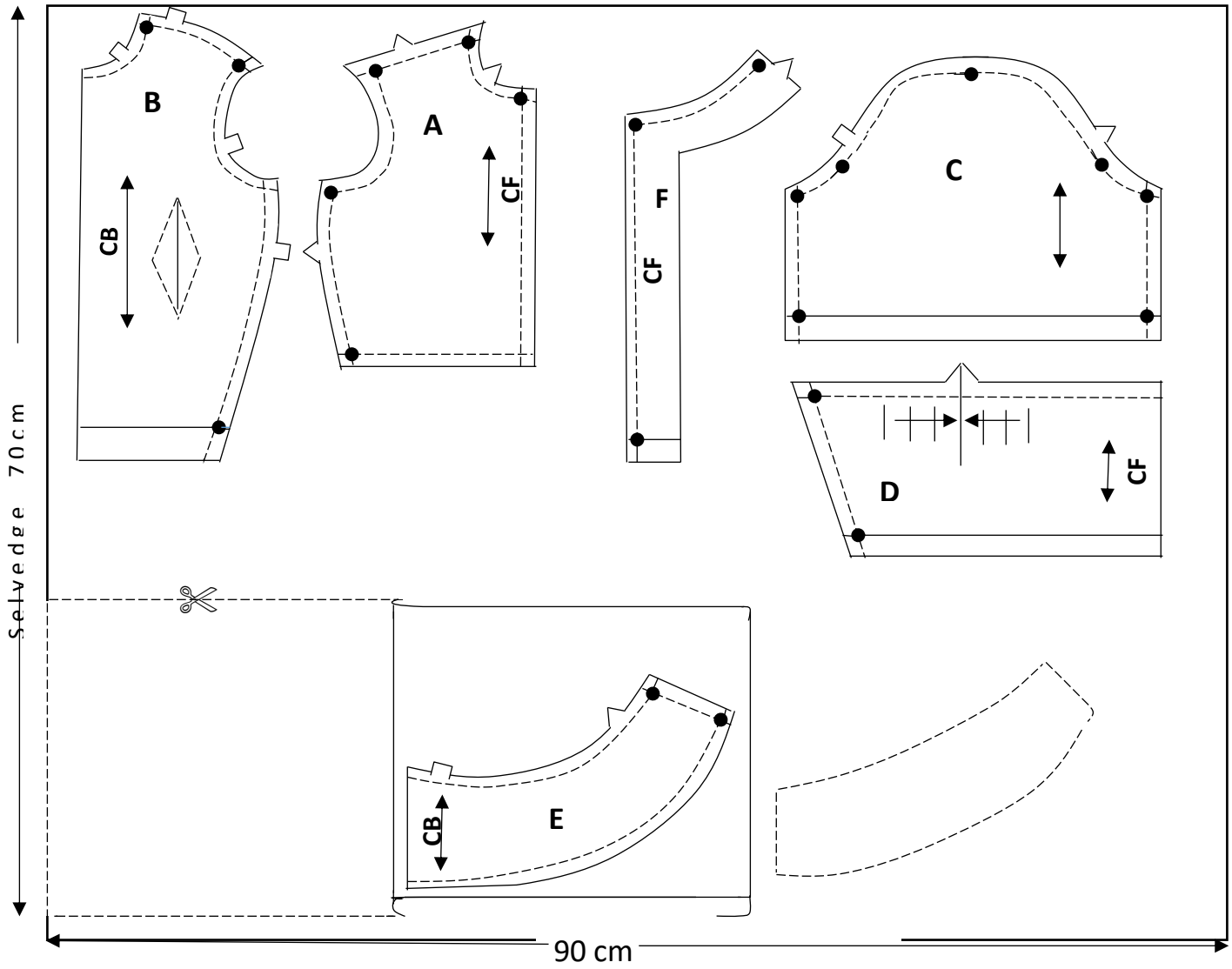
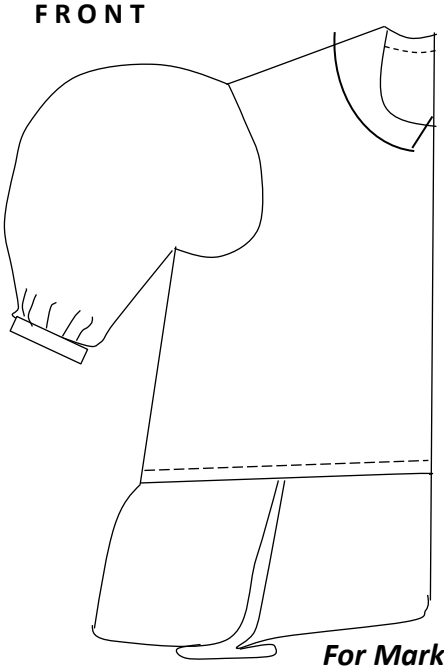
LAYOUT – NOT DRAWN TO SCALE

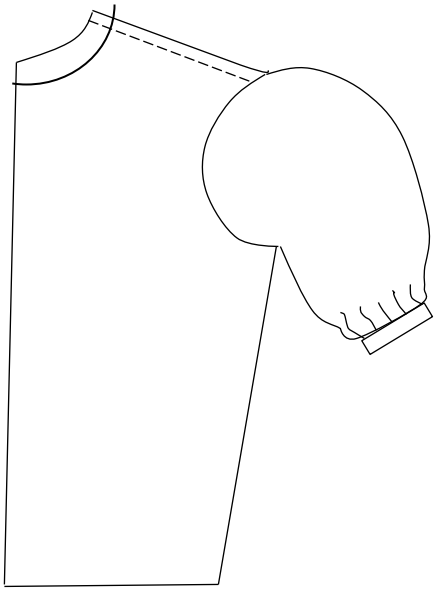


VIEWS

FRONT



BACK



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KCSE INTER-COUNTY MOCKS

Kenya Certificate of Secondary Education

KCSE JOINT SERIES 1-2024

441/3 Home Science Paper 3

Time: 1¾ Hours

NAME……

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Kenya Certificate of Secondary Education.

441/3
HOME SCIENCE
(Food and Nutrition)
Paper 3
Practical
Time: 1¾ Hours

Planning session - 30 minutes

Practical test session – 1¼ hours

Instructions to candidates

1. Read the test carefully.
2. Write your name on every sheet of paper.
3. Textbooks and recipes may be used during the planning session as reference.
4. You will be expected to keep to your order of work during the practical session.
5. You are only allowed to take away your reference materials at the end of the planning session.
6. You are not allowed to bring additional notes to the practical.

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THE TEST

Your cousin who is a lacto vegetarian is coming for a sleep over. Using **ALL** the ingredients provided, prepare, cook and present a two pot dinner and a nutritious drink for the two of you. In addition, prepare one tea item for breakfast for both of you

INGREDIENTS

- Rice /potatoes
- Beans / Ndengu
- Plain wheat flour/ self-rising wheat flour
- Oranges /mangoes
- Green leafy vegetables
- Onions
- Tomatoes
- Hoho
- Carrots
- Garlic
- Eggs
- Sugar
- Salt
- Oil/ cooking fat

PLANNING SESSION – 30 MINUTES

Use separate sheets of paper for each task listed below and a carbon paper to make duplicate copies. Then proceed as follows.

1. Identify the food items and write down their recipes.
2. Write down your order of work
3. Make a list of food stuffs, materials and equipment you will require.

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THE END

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FOR THE FOLLOWING;

- ✓ ONLINE TUITION
- ✓ REVISION NOTES
- ✓ SCHEMES OF WORK
- ✓ SETBOOKS VIDEOS
- ✓ TERMLY EXAMS
- ✓ QUICK REVISION KITS
- ✓ KCSE TOPICALS
- ✓ KCSE PREMOCKS
- ✓ TOP SCHOOLS PREMOCKS
- ✓ JOINT PREMOCKS
- ✓ KCSE MOCKS
- ✓ TOP SCHOOLS MOCKS
- ✓ JOINT MOCKS
- ✓ KCSE POSTMOCKS
- ✓ TOP SCHOOLS PREDICTIONS
- ✓ KCSE PREDICTIONS
- ✓ KCSE REVEALED SETS

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0746-222-000
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