KCSE 2024 JOINT MOCK

ALL SUBJECTS

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

SUBJECTS TESTED;

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

SERIES 1

For Marking Schemes

Mr Isaboke 0746 222 000 / 0742 999 000

MWALIMU CONSULTANCY

KCSE 2024 JOINT MOCK EXAM

SERIES 1

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

- *Answer any **FIVE** questions in the spaces provided.*
- *Each question carries 20 marks*
- *This paper consists of **six** questions*
- *Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing.*

For Examiner's Use Only.

Question	1	2	3	4	5	6	Totals
Score							

*Answer any **FIVE** questions in the spaces provided.*

1. a) Give **seven** reasons why reading the bible is important to Christians today? **(7 marks)**

b) . Explain **eight** ways in which the bible translations have facilitated the spread of Christianity in Kenya **(8marks)**

c) How does the church help to bring back members who have fallen from the faith **(5 marks)**

2. a) How did Moses' earlier life prepare him for the leadership of the Israelites? **(7marks)**

b) Highlight the promises that God made to Abraham **(7 marks)**

c)Identify **six** attributes of God from the ten plagues **(6 marks)**

3. a) With reference to 1st kings 21: 17-29, give **seven** forms of punishment prophesied by Elijah to king Ahab and queen Jezebel **(7 marks)**

b) Explain the achievements of king David **(7 marks)**

c) Give reasons why Christians in Kenya should build churches today **(6 marks)**

4) a.) Outline **Seven** ways in which the rich oppressed the poor in Israel during the time of prophet Amos **(7marks)**

b.) Describe the teachings of Amos on Israel's election **(7marks)**

c.) Give **Six** reasons why Christians are encouraged to repent their sins **(6marks)**

5) a.) Identify **Seven** occasions when Nehemiah prayed **(7marks)**

b.) Outline **Seven** reasons why Nehemiah introduced religious reforms in Judah **(7marks)**

c.) Why do Christians pray today? **(6marks)**

6) **a.)** Identify **Eight** practices in traditional African communities that show their belief in life after death **(8marks)**

b.) Explain the importance of kinship ties in traditional African communities **(7marks)**

c.) List **Five** factors that have affected kinship ties today **(5marks)**

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All the Best!

KCSE 2024 JOINT MOCK EXAM

SERIES 1

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

- *Answer any **FIVE** questions in the spaces provided.*
- *Each question carries 20 marks*
- *This paper consists of **six** questions*
- *Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing.*

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Question	1	2	3	4	5	6	Totals
Score							

*Answer any **FIVE** questions in the spaces provided.*

1. **a)** Describe the visit of angel Gabriel of the Lord to the shepherd on the night Jesus was born **(7 marks)**

   b) State the differences between the work of John the Baptist and that of Jesus Christ **(8 marks)**

   c) What lessons do Christians learn about family relationship from the incident when Jesus accompanied his parents for the Passover festival? **(5 marks)**

2. **a) Explain** the events that took place during the transfiguration of Jesus according to Luke 9:28-37 **(7 marks)**

   b) Identify ways through which the church continues with the healing ministry of Jesus Christ **(7 marks)**

   c) How are Christians preparing for the second coming of Christ **(6 marks)**

3. **a) Give** reasons why Jesus used the parable of the lost son in his teachings **(7marks)**

   b) With reference to Luke 22:7-14, outline the preparations that Jesus made for the last super **(8 marks)**

   c) Identify the reasons that made Judas Iscariot betray Jesus **(5 marks)**

4.a) How was the presence of the Holy Spirit manifest on the day of Pentecost? **(5marks)**

b) Explain the unity of believers as expressed in the concept of the body of Christ **(7marks)**

c) State **<u>Eight</u>** challenges that the church is facing today while trying to carry out its mission effectively **(8marks)**

5.a) Explain **<u>Four</u>** sources of Christian Ethics **(8marks)**

b) Outline the roles that a Christian should play during a strike **(5marks)**

c) List **<u>Seven</u>** activities that the youth can engage in during their leisure time **(7marks)**

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6. **a**) State **<u>Seven</u>** ways in which Science and technology has improved human life **(7marks)**

b) Give reasons why Christians are opposed to Euthanasia **(7marks)**

c) Identify ways in which Christians can help to control desertification **(6marks)**

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All the Best!

KCSE 2024 JOINT MOCK EXAM

SERIES 1

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) **Define** the term pre-history. **(1mk)**
2) **Identify** two sub-groups among the Ameru**.** **(2mks)**
3) **Identify** two natural factors that caused the Abagusii to migrate from mount Elgon region to their present homeland. **(2mks)**
4) **What** was the main role of the Kallu among the Cushite during the pre-colonial period. **(1mk)**
5) **Name** two early visitors to the East Africa coast up to **1500AD.** **(2mks)**
6) **Mention one** contribution made by Ludwig Krapf in the spread of Christianity. **(1mk)**
7) **State two** ways through which citizenship by birth is attained. **(2mks)**
8) **Identify** one cause of conflicts in Kenya. **(1mk)**
9) **State two** advantages of written constitution**.** **(2mks)**
10) **Identify two** ways in which the results of collaboration of the Maasai with the British were similar to that of Wanga. **(2mks)**
11) **State** two grievances raised by the Asians that were addressed by the Devonshire white paper of 1923. **(2mks)**
12) **State** one main outcome of second Lancaster conference of 1962. **(1mk)**
13) **Mention** one role of Daniel Arap Moi in the struggle for independence**.** **(1mk)**
14) **What** is the main function of parliament in **Kenya.** **(1mk)**
15) **State two** features of African socialism in Keny**a** **(2mks)**
16) **State** one way in which poor leadership affects sporting activities in Kenya**.** **(1mk)**
17) **State one** way in which the government of Kenya ensures effective utilization of public funds. **(1mk)**

SECTION B (45MKS)

Answer any three questions in this section.

18) (a) State any three Luo groups which migrated into Kenya**.** **(3mks)**

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

19) 1(a)Give three factors which contributed to the development of trade between the Kenyan coast and the outside world by the 16th century. **(3mks)**

(b)Explain six factors that led to the decline of the Portuguese rule over the Kenyan coast in the 19th century**.** **(12mks)**

20) (a) Identify three leaders of the East Africa association**.** **(3mks)**

(b) Explain six grievances of Africans which were advanced by the East Africa association. **(12mks)**

21) (a)State three challenges that hinder government efforts to eradicate illiteracy in Kenya. **(3mks)**

(b)Describe six factors that have influenced industrialization in Kenya since independence. **(12mks)**

SECTION C (30MKS)

Answer any two questions in this section.

22) (a) State three reasons why elections are regularly held in Kenya. **(3mks)**

(b)Describe the process of law-making in Kenya. **(12mks)**

23) (a)State three objectives of devolved government. **(3mks)**

(b) Explain six functions of the county government**.** **(12mks)**

24) (a)Outline the composition of the judicial service commission. **(3mks)**

(b)Explain six challenges facing the judiciary in Kenya. **(12mks)**

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KCSE 2024 JOINT MOCK EXAM

SERIES 1

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. Identify **one** limitation that hinders use of electronic sources to get historical data. **(1mark)**

2. Give **two** major cultural developments by man towards the end of new Stone Age.**(2marks)**

3. State **two** changes that marked Agrarian Revolution in Britain **(2marks)**

4. State one advantage of using steel over iron during the Industrial Revolution in Europe **(1mark)**

5. State **two** advantages of using airplanes over the ship as a means of transport. **(2marks)**

6. Identify **one** form of picture writing during the early civilizations. **(1mark)**

7. State **two** uses of water as an early source of energy in industries. **(2marks)**

8.Identify two factors that led to the decline of Kilwa **(2marks)**

9.State **one** way through which trade contributed to the rise of Asante Empire during the 19th century. **(1mark)**

10. Identify **one** way through which Europeans maintained peace among themselves during partition of Africa. **(1mark)**

11.State **two** factors that facilitated application of indirect rule in the Northern Nigeria.**(2marks)**

1**2**.Give two resolutions of the Berlin conference of 1884 -1885 **(1 mark)**

13. Identify **two** ways in which SamoriTouré acquired fire arms during the Mandinka Resistance. **(2 marks)**

14.State one reason why USA did not join the First World War until 1917. **(1 mark)**

15.Name the principal judicial organ of the United Nations Organization. **(1 mark)**

16.Give two principles of Arusha Declaration of 1967 in Tanzania. **(2 marks)**

17. Give **one** weapon used during the cold war. **(1mark)**

SECTION B (45MARKS)

Answer any three questions in this section

18(a) State five ways in which the development of the upright posture improved the early man's way of life. **(5marks)**

(b) Describe the cultural and Economic practices of the early man during the Middle Stone Age Period. **(10marks)**

19(a)Give **five** methods used to acquire slaves from West Africa during the Trans-Atlantic trade. **(5marks)**

(b)Explain **five** factors that led to the decline of the Trans-Saharan trade. **(10marks)**

20(a) Give 3 causes of army mutiny in Democratic Republic of Congo in 1960. (**3marks)**

(b) Explain six reasons why the Lozi collaborated with the British during colonization of Africa **(12marks)**

21(a) Give five reasons that encouraged nationalist in Mozambique to use armed struggle to attain independence. **(5marks)**

(b) Why did the French system of assimilation fail in the area outside the communes of Senegal **(10mks)**

SECTION C (30MARKS)

Answer any two questions in this section

22(a) State three reasons for the failure of Schlieffen plan during First World War. **(3marks)**

(b) Explain six reasons for the Allies Victory during Second World War. **(12marks)**

23(a) State three conditions that gave rise to the Non-Aligned movement. **(3 marks)**

(b) Explain six challenges of the Non-Aligned movement. **(12marks)**

24(a) Name three types of federal courts in USA **(3marks)**

(b) What are the duties of the Prime Minister in Britain **(12 marks)**

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KCSE 2024 JOINT MOCK EXAM

SERIES 1

312/1

GEOGRAPHY

PAPER 1

TIME: 2¾ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTION TO CANDIDATES.

- *This paper has two sections **A** and **B**.*
- *Answer **All** questions in section A.*
- *In section **B**, Answer question **six** and any other **two** questions.*

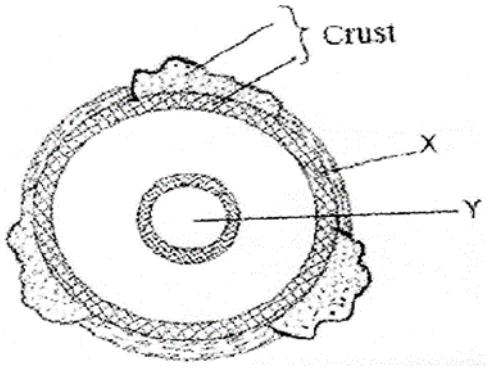
FOR EXAMINERS USE ONLY

SECTION	QUESTION	MAXIMUM SCORE	CADINDATE SCORE
A	1-5	25	
B	6	25	
		25	
		25	
	TOTAL SCORE		

For Marking Schemes Contact 0746 222 000 / 0742 999 000

SECTION A: 25 MARKS

1. The diagram below shows the internal structure of the earth.



(a) Name the parts marked **X** and **Y** **(2marks)**

(b) Give **three** characteristics of the part marked **Y** **(3marks)**

2. (a) State **three** conditions necessary for siting a weather station. **(3 marks)**

(b) Name **three** instruments that are placed inside the Stevenson's Screen. **(3 marks)**

3. State **five** characteristics of Mediterranean vegetation. **(5 marks)**

4. (a) **Differentiate** between a river divide and a river catchment **(2marks)**

b) Name three ways through which a river transport its load **(3marks)**

5. Give **four** sources of underground **water** **(4marks)**

SECTION B: 75 MARKS

Answer question 6 and any other two questions in this section

6. You are provided with a map of **KISUMU EAST, EAST AFRICA 1:50,000 (KENYA)** sheet 116/2.Use it to answer the following questions.

a (i) convert the scale of this map into a statement scale **(2 marks)**

(ii) Identify **three** physical features found at grid square **9995** in the area covered by the Map. **(2marks)**

(iii) Give the bearing of the **air photo principal point** at grid square 9584 from the south western corner of the area covered by the map. **(2marks)**

(iv) Give the magnetic variation of the area covered by the map **(2 marks)**

(b) **Citing evidence** from the map, give **five** social services offered in Kisumu town **(5 marks)**

(c) Describe the **relief** of the area covered by the map **(5marks)**

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d (i) On the graph paper provided, use a vertical scale of **1cm represent 50 metres** to draw a cross section from point **950950** to point **020950** in the area covered by the map **(4marks)**

(ii) On it mark and label

-Dry weather road **(1mark)**

-Power transmission line **(1mark)**

-Motorable track **(1mark)**

7. (a) (i) Apart from metamorphic rocks, name **two** other categories of rocks. **(2 marks)**

(ii) Describe the following processes of formation of metamorphic rocks.

• Dynamic metamorphism **(4 marks)**

•Thermal metamorphism **(4 marks)**

(b) Explain **three** ways in which rocks are significant to human activities in Kenya. **(6 marks)**

(c) You intend to carry out a field study on the types of rocks within the school locality.

(i) Identify **three** items that you will carry during the study. **(3 marks)**

(ii) State **three** activities that you will be involved in during the study **(3marks)**

(iii) List **three** types of metamorphic rocks that you are likely to identify **(3marks)**

8. a) i) **What is** folding? **(2marks)**

ii) Name **four** features formed as a result of **folding** **(4marks)**

iii) Explain how Fold Mountains are formed according to convectional current theory **(3marks)**

b) i) **Differentiate** between orogeny and orogenesis **(2marks)**

ii) State **three** factors influencing folding of sedimentary rocks. **(3marks)**

(c) Name the continent in which each of the following fold mountains is found

- **Alps** **(1mark)**

  Himalayas **(1mark)**

- **Andes** **(1mark)**

- **Rockies** **(1mark)** -

  Atlas **(1mark)**

(d) Explain **three** negative effects of fold mountains to human activities **(6marks)**

9. (a) (i) Name **two** types of submerged highland coasts **(2 marks)**

(ii) Identify **two** resultant features of the emerged highland coasts. **(2 marks)**

(b) State **three** factors influencing deposition by ocean waves. **(3 marks)**

(c) Describe the formation of the following coastal features:

(i) **Fringing reef** **(5 marks)**

(ii) **Spit** **(5 marks)**

(d) **Explain** the significance of oceans to human activities. **(8 marks)**

10. (a) List **three** components of soil. **(3 marks)**

(b) **Explain** each of the following in relation to the classification of soil:

(i) Zonal **(2 marks)**

(ii) Intrazonal **(2 marks)**

(iii) Azonal **(2 marks)**

(c) Explain **three** causes of soil degeneration. **(6 marks)**

(d) Students from Mathioya School visited a nearby ranch to study types of soil.

Explain why they carried the following tools: **(2 marks)**

i. **Hoes** -

ii **Polythene bags** -

(ii) Give **three** reasons why they would need to seek permission from relevant authorities **(3marks)**

(iii) List **three** types of soil erosion they are likely to observe. **(3 marks)**

KCSE 2024 JOINT MOCK EXAM

SERIES 1

312/2

GEOGRAPHY

PAPER 2

TIME: 2¾ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTION TO CANDIDATES.

- *This paper has two sections **A** and **B**.*
- *Answer **All** questions in section A.*
- *In section **B**, Answer question **six** and any other **two** questions.*

FOR EXAMINERS USE ONLY

SECTION	QUESTION	MAXIMUM SCORE	CADINDATE SCORE
A	1-5	25	
B	6	25	
		25	
		25	
	TOTAL SCORE		

SECTION A: 25 MARKS

1) A) Apart from oil, name two other non- renewable sources of energy. **(2 mks)**

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

2) A) Give two similarities in function between Nairobi and New-york city. **(2mks)**

b) Identify three function zones of an ideal urban center. **(3 mks)**

3) A) Name three types of fish. **(3 mks)**

b) State two problems facing fishing in Japan. **(2 mks)**

4) A) Give two minerals that occur in form of alluvial deposits. **(2mks)**

b) State three ways in which soda ash contributes to the economy of Kenya**.** **(3 mks)**

5) A) Name two types of environment. **(2 mks)**

b) Identify three sub-branches of Geography in human and economic geography. **(3 mks)**

SECTION B: 75MARKS

Answer all question 6 and any other two questions in this section.

6) The table below shows total number of livestock in Kenya in 1986 and 1996.

TYPE OF LIVESTOCK	NUMBER IN MILLIONS	
	1986	**1996**
CATTLE	19.0	20.7
SHEEP	17.0	26.7
GOATS	18.5	27.3
CHICKEN	20.0	40.0

a) I) Using a scale of 1cm represents 5 million livestock, draw a comparative bar graph to represent the above given data. **(8 mks)**

ii) State three advantages of comparative bar graphs. **(3 mks)**

b) I) Discuss nomadic pastrolism under the following subheadings.

- Types of cattle breed kept. **(2mks)**
- The pattern of movement. **(2mks)**
- The marketing of animals. **(2mks)**

ii) Give two reasons why nomadic pastrolists keep large heads of animals**.** **(2 mks)**

c) Explain three ways in which the government of Kenya assist nomadic pastoralists improve quality of their livestock. **(6 mks)**

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7) a) i) Define the term wildlife. **(2 mks)**

ii) Name two characteristics of National parks. **(2 mks)**

b) State four physical factors that would discourage setting up a game park within the slopes of Mt. Kenya. **(4 mks)**

c) I) Name three main inland attraction sites in Kenya. **(3mks)**

ii) Compare tourism in Kenya and Switzerland under the following sub heading.

- Climate. **(2 mks)**
- Scenery. **(2 mks)**
- Culture. **(2 mks)**

d) Explain four ways in which Kenya is planning to expand her tourism. **(8 mks)**

8) A) i)Apart from floods,name two other environmental hazard associated with climatic conditions. **(2 mks)**

ii) Name two ways that have been used to reclaim land from swamps. **(2 mks)**

iii) State three factors which have led to frequent flooding in L.Victoria region. **(3 mks)**

b) Explain four ways in which land is being rehabilitated in Kenya. **(8 mks)**

c) i) state four benefits of land reclamation in Netherlands. **(4 mks)**

ii) Give three differences of land reclamation in Kenya and Netherlands. **(6 mks)**

9) A) i) Give two types of international trade. **(2 mk)**

ii) Differentiate between visible and invisible exports. **(2 mks)**

b) i) Name three member countries of COMESA. **(3 mks)**

ii) State four problems facing COMESA. **(4 MKS)**

c) Explain four reasons why Kenya earns little foreign exchange from agriculture. **(8 mks)**

d) Explain three ways though which the government can improve future trade. **(6 mks)**

10)a) i) Differentiate between indigenous and exotic forests. **(2 mks)**

ii) Give three examples of softwood trees in Kenya. **(3 mks)**

b) i) State four characteristics of natural forests in Kenya. **(4 mks)**

ii) Explain three physical factors that favour growth of natural forests in Kenya**. (6 mks)**

c) State four measures which have been taken to manage forests in Kenya. **(4 mks)**

d) Give the difference between forestry in Canada and Kenya under the following subheadings.

i) Distribution. **(2 mks)**

ii) Problems. **(2 mks)**

iii) Marketing. **(2 mks)**

KCSE 2024 JOINT MOCK EXAM

SERIES 1

101/1

ENGLISH

PAPER 1

(Functional Skills)

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES.

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

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

c. *Answer ALL questions in this questions paper.*

d. *All your answers must be written in the spaces provided in this question paper.*

For Examiner's Use Only

Question	Maximum Score	Candidate's Score
1	20	
2	10	
3	30	
TOTAL SCORE		

For Marking Schemes Contact 0746 222 000 / 0742 999 000

1. FUNCTIONAL WRITING (20MKS)

You are a form four student at Bidii High school. You have come across an advertisement in the Daily Standard Newspaper on the courses offered at Isaboke Computer College. You would like to pursue a short term course in Computer Graphics, during the December holiday as you await the KCSE results. Write a letter to the Director of the college inquiring about the duration of the course, fee structure, admission requirements and any other relevant details. **(20mks)**

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2. CLOZE TEST(10MKS)

Fill in the blank space with the most appropriate words.

Wedding songs are songs sung at weddings or marriage (1)……They praise the (2) ……..and the groom. In the African contemporary society, these (3)……..poems are very common. They are (4)……referred to as nuptial songs. When analyzing songs, it is imperative to look at their characteristics and (5) ……Wedding songs educate on expectations of (6)……..The newlyweds (7) ……be patient with each other. They should love and respect (8)…….other. Wedding songs also praise the groom. For instance, a man is praised for his (9) ……..to take care of his wife and children. Lastly, wedding songs express (10) …… for the bride leaving home.

3. ORAL SKILLS (30MKS)

(a) Read the narrative below and then answer the questions that follow. (11mks)

Why the bat flies by night

A bush rat called Oyot was a great friend of Emiong, the bat. They always fed together, but the bat was jealous of the bush rat. When the bat cooked food, it was always very good, and the bush rat said, "how is it that when you make the soup, it is so tasty?"

The bat replied, "I always boil myself in the water, and the flesh is so sweet that the soup is good. I'll show you how it is done,"

So, he got a pot of warm water, which he told the bush rat was boiling water, and he jumped into it, chumbyu! And very shortly afterwards came out again. When the soup was brought, it was as strong and good as usual, as the bat had prepared it beforehand. The bush rat then went home and said to his wife, "I'm going to make good soup like the bat's. Boil some water." His wife did as instructed. Then when his wife was not looking, he jumped into the pot, and was very soon dead.

When his wife looked into the pot and saw the dead body of her husband boiling, she was very angry. She reported the matter to the king, who gave orders that the bat should be made prisoner. Everyone turned out to catch the bat, but as he expected trouble, he flew away into the bush and hid himself. All day long, the people tried to catch him.

So, he had to change habits, and only came out to feed when it is dark, and that is why you never see a bat in the daytime.

QUESTIONS

i. What would you do to draw the audience's attention before telling this story**?** **(2mks)**

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……

ii. Which facial expression would you wear when narrating the following words?

"How is it that when you make the soup, it is so tasty?" **(2mks)**

……

……

……

iii. Identify and illustrate a sound device from the story. **(2mks)**

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……

iv. How would you narrate the following utterance? "Everyone turned out to catch the bat, but as he expected trouble, he flew away into the bush and hid himself". **(2mks)**

……

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……

v. Identify a happening in the story that would make the audience gasp in shock**.** **(1mk)**

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……

vi. Who is the most suitable audience for this narrative? Give a reason. **(2mks)**

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……

(b) **For each of the following words, provide another that is pronounced the same way. (6mks**)

i. Berry –

ii. Air –

iii. Blew –

iv. Ate –

v. Waist –

vi. Mail –

(c) **Fill each of the blank spaces with the correctly stressed word from the choices given. (4mks)**

Karen : I am quite …….(‘upset,up’set) at the way this company runs.

Kyle : What do you mean? I have always thought you are full of ……..(‘content, con’tent)

Karen : Not really. The manager will always …….(‘project, pro’ject) at anybody who questions his leadership style.

Kyle : Well, you have little choice then. You have to……..(‘conduct, con’duct) yourself well.

(d) For each of the following sentences indicate whether you would say it with a falling or rising intonation. (4mks)

i. Which hospital does Khadija go to?
ii. Martin never liked people who told lies.
iii. They cook very good food in Bantu restaurant.
iv. Have you ever been to Naivasha?

(e) You have been invited to a job interview.

i. Explain briefly what you would need to do before the occasion to ensure that you look presentable. **(2mks)**

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……

ii. What else would you need to do before the interview to ensure success? **(3mks)**

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KCSE 2024 JOINT MOCK EXAM

SERIES 1

101/2

ENGLISH

PAPER 2

(Comprehension, Literary appreciation and Grammar)

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

(i) *Write your name and admission number in the space provided above*

(ii) *Sign and write the date of examination in the space provided above*

(iii) *Answer all the questions in this question paper*

(iv) *All your answers must be written in the space provided in this question paper*

For Examiners Use Only

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

1. COMPREHENSION (20mrks)

Read the following passage and answer the questions that follow (20mrks)

Problem drinkers and alcoholics pay severe penalties for their drinking. It has been estimated that alcoholics are likely to die ten to twelve years sooner than non-alcoholics and half die before the age of fifty, which is one reason there are so few elderly alcoholics. The mortality rate (that is, the number of persons per 100,000 who die each year) among alcoholics is more than two and a half times higher than that of the general population.

Alcoholics often die under violent circumstances; serious accidents, homicides and suicide are not uncommon. This, together with the physical deterioration accompanying alcoholism, help and explain the limits on life expectancy. No one really knows how many deaths are directly **attributed** to drinking, and all such **statistics** are estimates. One reason for our limited knowledge is that many physicians do not report alcoholism as the main cause of death out of concern for the feelings of the family of the deceased.

Research on the physiological effects of alcoholism has increased in the last few years. Heavy drinking is known to be associated with various types of cancer, particularly among persons who also use tobacco. Alcohol **abuse** also increases the probability of hypertension, stroke and coronary heart disease. Alcoholics frequently suffer illness and death from cirrhosis of the liver, a disease in which the liver becomes fatty, **scarred**, and incapable of functioning normally. In large areas, cirrhosis is the fourth most common causes of death among men aged twenty-five to forty –five.

Alcohol affects the brain, often permanently damaging the mental functioning of alcoholics. Drinking may reduce the number of living cells in the brain. Since brain cells do not grow back, alcoholics may suffer from organic psychosis (a mental illness traceable to brain damages), loss of memory and poor physical and mental coordination. One out of four persons who are admitted to mental hospitals are diagnosed as alcoholics and 40 percent of all admission are alcohol related.

Many of the alcoholic inmates are unlikely to recover.

The unborn children of female alcoholics are subject to harm from drinking in what is called foetal alcohol syndrome. Because alcohol tends to be a substitute for a balanced diet, alcoholics are often malnourished. Consequently, the infants of alcoholic women are likely to be less healthy and less well developed than other babies. Moreover, when a pregnant woman drinks, so, in effect, does her foetus. The new born children of alcoholic women may die shortly after birth unless they are medically treated from the shock to their system for suddenly being cut off from alcohol. Furthermore, the impact of alcohol on the woman and her foetus is a major cause of birth defects and organically based mental deficiency among the newborn. The effects of foetal alcohol syndrome on the children of female alcoholics are usually chronic and may be permanently disabling.

QUESTIONS

i. What are the major causes of death among alcoholics**?** **(2mks)**

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ii. Which reason does the writer give as to why physicians do not report alcoholic related deaths?

(2mrks)

……

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iii. One out of four persons who are admitted to mental hospitals are diagnosed as alcoholics.(Rewrite starting with a few....) **(2mrks)**

……

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iv. Alcoholics often die under violent circumstances...(**Rewrite adding a question tag) (1mrks)**

……

v.What is the attitude of the writer towards people who abuse alcohol? **(3mrks)**

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vi.Explain what the following sentence means. *Alcohol tends to be a substitute for a balance diet*

(2mrks)

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vii.Make notes on the effects of alcohol to expectant mothers and their children **(4mrks)**

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viii. What would be the most suitable title for this passage? **(1mrk)**

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ix. Explain the meaning of the following words and phrases as used in the passage **(3mrks)**

(a) attribute

.....

(b) scarred abuse

.....

(c) statistics

.....

2. EXCERPT (25mrks)

"That's a bad idea, Mr Longway. I'm a Gambian, Sir."

"All right, so you are a Gambian. Well, I am a South African. Now how has that helpedadvance world peace?"

"Sir, are you really a South African?""Yes, I am."

"This is the Gambia, Sir. Since the article you dropped looks valuable, you might never see itagain, Sir. As a Gambian, I ought to know. Still, if you insist, I'll give it to the woman at the front desk."

"No, no, no. I've changed my mind. I'm coming down for it right away."

"That's a good idea, Mr Longway. You'll find me standing near the phone booths. 11m wearing white shoes and a red dress with white polka dots. You will not miss me, Sir. But ifyou do, I won't."

"I'll be there in five minutes." He was there in three.

She spotted him first. "Sir, it's me you are looking for," she said. Mr Longway, I am Fiona McKenzie, the stranger who phoned you."

"Are you? You see, the picture I had formed Of you in my mind was not black at all. Wait.That did not come out right, did it? I meant on the phone you sounded Scottish, white anyway. Goodness, what am I saying? Forget it. I am Tad. Tad Longway."

"I'm pleased to meet you, Sir. I am Fiona. Fiona McKenzie "She handed him something." That's the article I was telling you about, Sir. "It was a key card to her office at the VOA. He looked at it. Then he gave it back to her. "Not mine," he said. "The tag says VOA, and Ihave no ties with the VOA."

"Then I interrupted your shower for nothing. Yet I can swear I saw you drop this very keycard, Mr Longway."

"Now, now, Ms McKenzie. Don't go burn yourself at the stake just for this, okay? In fact, since you've gone to all this trouble for my sake, why don't you let me buy you a drink? It'stime for my evening Martini anyway. So what's your poison?"

She consulted her watch then shook her head. "It's late," she said. "Late? That must be a newdrink."

"All right, Mr Longway. Maybe a Coke, but I must be off soon."

QUESTIONS

a) Place the excerpt in its immediate context. **(5 marks)**

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b) "That's a bad idea, Mr. Longway. "What was Fiona referring to as a bad idea**?** **(2 marks)**

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c) Identify and illustrate three styles used in this excerpt**.** **(6 marks)**

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d) Explain one instance of irony in this excerpt. **(2 marks)**

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e) Using information from elsewhere in the text, explain why Ms. Mckenzie soundedScottish**.**

(2 marks)

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f) How has Ms. Mckenzie been brought out in this excerpt? **(4 mark)**

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g) Join the following sentences into one. (begin: After**...).** **(1 mark)**

He looked at it. Then he gave it back to her.

……

h) Who is Mr. Longway and why was Fiona so interested in meeting him? **(3 marks)**

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3. ORAL NARRATIVE

Read the passage below and then answer the questions that follow.

Once upon a time, Warthog and Hare were best friends and they lived together. They shared duties according to each one's abilities. Hare had speed, therefore, duties involving fetching or delivering items fast were left to him, while Warthog, who was gifted in cooking, handled kitchen duties. However, Warthog had his shortcomings. He lost his temper easily and was ready to fight at the slightest provocation. Hare tolerated him all the same.

Things were not always good in the kitchen. The two always quarrelled over missing food. Warthog was always on the defence, denying any wrong doing. One day, Hare bought five tilapia fish but warthog only served two. When he was asked what had happened to the other three fish, as usual, Warthog insisted that he knew nothing about the missing fish. Hare was aware that arguing or fighting would not bring back the lost fish. He also knew that he was smaller and could never win a physical fight against warthog.

Not long after the missing fish incident, Hare and Warthog went hunting. They chanced upon a young gazelle too weak to run. They took the gazelle home and slaughtered it. Warthog as usual was the chef. Hare left him and went for a stroll as he waited for the meat to cook. When he returned, warthog, was sleeping under a shady tree, pretending to be very tired, after cooking. Hare opened the lid and Lo! There were only few pieces of meat left.

Hare was really angry and he threatened to beat Warthog up if he failed to account for the missing pieces. Under faked annoyance, Warthog pounced on hare mid-sentence and beat him up thoroughly. Hare promised to **get even**. That evening, Hare went to see Mr. Squirrel who was the best known magician in the whole region. Squirrel gave him a pot of honey to take to Warthog. When he went back home, Hare **feigned** forgiveness and invited warthog to taste the honey.

Warthog approached him cautiously. He knew that Hare was quite tricky at times. He thought the pot might contain a snake.

So he started apologizing to Hare from a distance for beating him but Hare laughed it off, reminding him that the differences between them were history and they should both start anew. Warthog, who loved honey, approached hare and scooped some which he ate greedily. However, what he did not know was that it had passed through the hands of Squirrel who had laced it with poisonous herbs that would affect Warthog and his descendants.

After eating half the pot's contents, Warthog felt dizzy and sleepy. When he woke up, he could not remember anything. His brain had been affected by the poisonous herbs. He forgot about his friendship and quarrel with Hare. He did not even remember eating the honey. He was so confused that he ran off into the bush. Warthog's brain has never recovered. Till now he is always confused and forgetful. ***(Adapted by Mwalimu Consultancy Ltd from Sunday Nation July 3 2011)***

Questions

a) How would you classify this narrative? Explain your answer. **(2marks)**

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b) Identify and illustrate two features of oral narratives present in the story. **(4marks)**

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c) What makes Warthog and Hare best friends? **(2marks)**

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d) What are the economic activities of the community from which the story is taken from? **(4mrks)**

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e) How has Hare been portrayed in the story? **(2marks)**

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f) What moral lesson do we learn from the above story? **(2marks)**

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(g) Give two functions of **'Once upon a time…'** **(2mrks)**

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(h) Give the meaning of the following words as used in the narrative **(2mrks)**

(i) get even

……

(ii) feigned

……

4. GRAMMAR (15mrks)

(a) Rewrite each of the following sentences according to the instructions given. Do not change the meaning (4mrks)

(i) I will go only if he asks me to. (Rewrite using the word **unless**)

.....

.....

(ii) The headteacher spoke for over an hour. She did not address important issues (Combine into one sentence using the word **however**)

.....

.....

(iii) I do not want any more tea, thank you. (Begin: I would rather....)

.....

.....

(iv) They say the terrorist is said to be somewhere in Eastleigh(Begin The terrorist)

.....

.....

(b) Use the correct form of the word in brackets to complete each of the following sentences(3mks)

(i) Owino did not know that a tree had.....his house(strike)

(ii) The three .....were arrested. (passer-by)

(iii) She has spent a lot of time.....her compound (beautiful)

(c) Complete the following sentences by adding the correct question tags. (2mks)

(i) You are going to stay with us tonight, ...

(ii) They don't wake up at six o'clock, ...

(d) Complete each of the following sentences by filling the blank spaces with the correct prepositions. (3mks)

(i) My uncle deals.....second hand clothes

(ii) She worked hard.....the lunch break

(iii) Nafula mistook Wambui.....her sister

(e) Choose the correct alternative from the word given in brackets to complete each of the following sentences (3mrks)

(i) This is one of those stories that.....to have no ending (seem, seems)

(ii) A range of issue.....discussed. (were, was)

(iii) He is the longest serving of all Kenya's..... (deputy heads, deputies head)

KCSE 2024 JOINT MOCK EXAM

SERIES 1

101/3

ENGLISH

PAPER 3

(Imaginative Composition and Essays based on Set Texts)

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

1. *Answer three questions only.*
2. *Questions one and two are compulsory.*
3. *In question one, choose only one.*
4. *In question three, choose one of the optional texts you have prepared on.*
5. *Each of your essays must not exceed 450 words.*
6. *Number your work correctly.*

FOR EXAMINER'S USE ONLY

QUESTION	MAXIMUM	SCORE
1	20	
2	20	
3	20	
TOTAL	60	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

Answer three questions only.

1. Imaginative composition (Compulsory) 20mks.

a) Write a composition that ends in the following words:

… it was by the grace of God that I survived.

OR

b) Write a composition on 'How to stop bullying in schools'

2. Compulsory set text 'The Samaritan by John Lara. (20mks)

Immoral individuals attempt to conceal their wrongdoings, but when the truth is out, they are held accountable for their activities. Justify this statement, drawing illustrations from **The Samaritan by John Lara.**

3. Optional set text. (Attempt only one question) (20 marks)

a) The short story: A Silent Song and Other Stories.

'War can cause a lot of problems in our society and should be avoided at all costs' With close reference to 'Boyi' by Gloria Mwaniga , Write an essay justifying this assertion.

OR

b) The play Parliament of Owls:

Nothing worthwhile is simple. Provide evidence for the statement by making many allusions to **Adipo Sidang's play Parliament of Owls**

OR

c) The novel: An Artist of The Floating World

War has a way of affecting not only property but also people's lives. Drawing examples from the life of Masuji Ono in **An Artist of the Floating World,** write an essay to show the truth of this statement

KCSE 2024 JOINT MOCK EXAM

MFULULIZO WA 1

102/1

KISWAHILI

KARATASI YA 1

INSHA

MUDA: SAA 1¾

JINA……

SHULE…… SAHIHI……

NAMBARI YA USAJILI…… MKONDO……

Cheti cha Kuhitimu Kisomo cha Sekondari (KCSE)

MAAGIZO

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

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

c) *Kila insha isipungue maneno* ***400.***

d) *Kila insha ina alama* ***20.***

e) *Kila insha* ***lazima*** *iandikwe kwa lugha ya Kiswahili.*

KWA MATUMIZI YA MTAHINI PEKEE

Swali	Upeo	Alama
1	20	
	20	
Jumla	40	

MASWALI

1. Mauaji katika ndoa yamekita mizizi katika taifa letu. Umeteuliwa na rais wa jamuhuri kuwa katibu wa Tume ya Uwiano wa Kijamii kuchunguza sababu za mauaji haya na hatua za kukabiliana na janga hili. Andika Ripoti. **Alama 20**

2. Kama mwanafunzi bora katika shule yako umepata nafasi ya kuzuru kwenye mbuga la wanyama la Masai Mara kwa siku tano ambapo umejifundisha mengi kuhusu umuhimu wa kuhifadhi misitu katika mfumo ikolojia. Andika shajara. **Alama 20**

3. Tunga kisa kitakachodhihirisah ukweli wa methali:

Asiyemjua simba atazame mtegowe. **alama 20**

4. Nilipoipokea simu nilisikia: "Njoo upesi kwenye kituo cha afya cha Kamaliza kuna dharura…" Endeleza. **Alama 20**

KCSE 2024 JOINT MOCK EXAM

MFULULIZO WA 1

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

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 **yote**.*

d) Majibu yote yaandikwe katika nafasi ulizoachiwa katika kijitabu hiki cha maswali.

e) Usitoe ukurasa wowote kutoka kwenye kijitabu hiki.

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

UFAHAMU

Somo kifungu kifuatacho kisha ujibu maswali.

Muhula wa kwanza wa kidato cha tatu ulipoanza, kama ilivyokuwa desturi katika shule ya Askofu Timotheo, wanafunzi walichunguzwa hali na Sista. Sista akaandika nakala ya matokeo ya uchunguzi wake na kumkabidhi mwalimu mkuu wa shule Bi. Margaret. Mwalimu mkuu akafanya lililomjuzu**.** Akaandikia waraka wazazi kwa wasichana waliuokuwa katika nakala ya matokeo ya Sista.

Jumatatu ya juma la tatu ilianza kama siku nyinginezo. Wanafunzi walijumuika gwarideni. .Maombi ya asubuhi yalifanywa. Mwalimu wa zamu akawakumbusha wanafunzi majukumu yao na bendera ikapandishwa. Zamu ya mkuu wa shule ilitimia. Aliwakumbusha wanafunzi umuhimu wakuwajibikia vitendo vyao. Baada ya hilo, aliita majina ya wanafunzi watatu na akatangaza kwamba baada yakufumukana wafike ofisini mwake. Vicheko vya chini kwa chini vilianguliwa. Sababu ya kuitwa kwa wanafunzi wale ilikuwa dhahiri.

Sela na wenzake walipofika ofisini walielekezwa wasubiri katika chumba cha mapokezi. Ingawa walifahamu sababu ya kuitwa pale, mpango uliokuwapo ulikuwa usiku wa giza. Hakuna aliyezungumza na mwenziwe kutokana na muemeo wa mawazo. Wote waliinamisha nyuso zao.

Baada ya nusu saa hivi, ofisini mliigia wazazi wawili; wa kike na kiume. Walikuwa wazazi wa Sela ; Mzee Butali na mkewe. Wao walionekana kuemewa na fikira. Kutokana na urasmi wa muktadha ule, hapakuwa na mazungumzo baada ya salamu. Mara kwa mara, Mzee Butali alitupia bintiye jicho la uhasama kabla ya mhazili kumfahamisha mwalimu mkuu kuhusu mjo wa wazazi wale.

Ofisini, Bi. Margaret ***alitia udibaji*** , " Asanteni kwa kuja. Sisi kama walimu na wazazi hukabiliana na mengi. Tukio lililowaleta hapa ni la kawaida kwetu. Ingawa sisi hufanya tuwezavyo kuwalinda wanetu, mara nyingi tabia zao hutupiga chenga…"

Wakati huu wote wazazi wa Sela walikuwa wamenyamaza. Mamake Sela alikuwa akimtazama Bi. Margaret huku Mzee Butali akiwa ameinama. Bi. Margaret alipohitimisha usemi wake, Mzee Butali aliinua uso wake na kumtazama mwalimu mkuu.

"Mwalimu nina swali moja ambalo ningetaka unijibu. Je, ni kwa nini sisi huwaleta watoto shuleni?" mzee Butali aliuliza kwa sauti iliyojaa uchungu.

Baada ya mazungumzo kati ya mwalimu mkuu na wazazi wa Sela, uamuzi ulitolewa. Sela na wenzake wawili hawangeweza kusoma pamoja na wengine baada ya hali yao kubainika. Bi. Margaret alipendekeza watafutiwe shule za kutwa karibu na watokako ili waendelee kusoma huku wazazi wakiwatunza. Alikuwa amewaandikia barua za mapendekezo ili wapokelewe katika shule ambazo wangechagua. Sela aliondoka shuleni na wazazi wake.

Boma la Mzee Butali liligeuka jahanamu baada ya kutoka shuleni. Mzee Butali aliwazulia ***majojo*** Sela na mama yake. Majirani nao walishuhudia bughudha hizo kwa mbali.

" Leo ndio mtanitambua. Mama gani anayemtaza mwana akigeuka afriti? Sikutumia hela zangu mimi katika elimu yake hadi nikaitwa pangu pakavu? Mtwae kilicho chenu mniondokee!" mzee Butali aliwafokea Sela na mama yake.

"Baba Sela, nani kasema huu ni msiba wangu? Tutautwaa pamoja. Huyu ni mtoto wetu, sio maradhi. Tutaondoka ndio; lakini elewa uchungu wa mwana ajuaye ni mzazi." Mama yake Sela alitoa kauli yake.

Maswali

(a) Shule ya Askofu Timotheo imejengwa katika msingi wa kidini. Fafanua. **(alama 2)**

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(b) ".. sisi hufanya tuwezavyo kuwalinda wanetu,.." Kulingana na kifungu eleza jinsi wazazi na walimu wanavyolinda wana wao**.** **(alama 4)**

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(c) Mwalimu mkuu alisisitiza kuhusu umuhimu wa kuwajibikia kwa wanafunzi katika vitendo vyao. Taja matokeo tatu ya kutowajibika kwa Sela. **(alama 3)**

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(d) Kwa kutolea sifa mbili, eleza hulka ya Mzee Batili. **(alama 2)**

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(e) Taja mtindo uliotumika katika kauli hii: Boma la Mzee Butali liligeuka jahanamu… **(alama 1)**

……

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(f) Eleza maana ya: **(alama 2)**

(i) alitia udibaji

(ii) majojo

(g) Kipe kifungu hiki anwani mwafaka**.** **(alama 1)**

UFUPISHO

Hapana shaka yeyote kuwa, ujio wa teknolojia nchini ulibadilisha ufumo wa kimaisha uliokuwepo hapo awali. Binafsi, ni miongoni mwa kizazi kilichozaliwa na kulelewa wakati hakukuwa na teknolojia yoyote katika jamii. Pengine teknolojia kubwa iliyokuwepo nyakati hizo ni redio na saa. Njia kuu ya mawasiliano ilikuwa uandishi wa barua.

Shirika la Posta Kenya lilikuwa na umuhimu mkubwa sana, kwani idadi kubwa ya wananchi ambao hawangemudu gharama ya kupiga simu za serikali walikuwa wakilazimika kuandika barua kuwatumia wapendwa wao. Si wengi walimudu kutumia simu hizo, kwani nyingi zilikuwa katika maeneo ya mijini. Kwa hivyo ili kutumia ingemlazimu mtu aliye katika maeneo ya mashambani kutenga siku fulani kusafiri hadi mjini ili kuitumia simu fulani.

Hata hivyo, mwanzoni wa 2000, hali ya mawasiliano ilianza kubadilika nchini kutokana na ujio wa simu za rununu. Wale walimudu kununua simu hizo walionekana kama matajiri . Lilikuwa jambo la kipekee kumwona mtu akiwasiliana kwa kutumia kisanduku kidogo kilicho bonyezwabonyezwa vidude kwa vidole . Miaka ilivyosonga, mawasiliano yaliendelea kurahisika .Bei za simu zikashuka pakubwa . Miundo ya simu pia iliimarika, kiasi kwamba kwa sasa,ni vigumu kumwona mtu yoyote bila simu hata watoto. Kwa sasa ,mtu yeyote anayemiliki simu isiyo na intaneti huonekana kama"aliyebaki nyuma".

Si intaneti tu, simu za sasa ni kama ofisi ndogo. Kando na intaneti,zina huduma nyingi ambazo hupatikana katika saibakefu,kwani ndiko kuna tarakilishi zilizounganishwa na intaneti. Sababu ya urejeleo ni kuonyesha jinsi teknolojia na mawasiliano yalivyo badili katika jamii. Kilicho wazi ni kuwa ,ujio wa simu za kisasa umerahisisha sana mawasiliano na jinsi tunavyopata habari kuhusu matukio tofauti duniani kwa muda mfupi. Licha ya manufaa hayo yote,kuna tatizo kubwa kuhusu simu hizo: uwepo wa baadhi ya apu na mitandao ya kijamii.

Ukweli ni kuwa baadhi ya apu zilizo katika simu hizo zinatishia kuvuruga maadili katika jamii. Kwa mfano, muundo wa apu ya Tiktok humruhushu mtu kurekodi video na kuiweka mtandaoni. Hilo huwapa nafasi maelfu ya watu kutazama video husika na kuifurahia. Wengine hueleza hisia zao kuhusu video husika.

Hata hivyo kile kinachohitajika ni kuhakikisha kuwa sawa na mitandao mingine ya kijamii kama vile Facebook , Instagram, Twitter au Whatsapp, kanuni na masharti ya kuutumia yanafuatiliwa

kuhakikisha uzingatiaji ili usivuruge mustakabali wa kimaadili kwa kizazi cha sasa na vile vijavyo.

(a) Kwa **maneno 80** fupisha aya tatu za kwanza. **(alama 8)**

matayarisho

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jibu

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(b) Fupisha ujumbe wa aya tatu za mwisho kwa **maneno 70.** **(alama 7)**

Matayarisho

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jibu

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MATUMIZI YA LUGHA **(ALAMA 40)**

(a) Andika neno lenye sauti zifuatazo **(alama 1)**

(i)Kipasuo-kwamizo sighuna cha kaakaa gumu,irabu ya juu,nyuma,irabu ya juu,nyuma ,kikwaruzo ghuna cha masine,irabu ya chini,kati tandaze

……

……

(ii)Dondoa sauti mwambatano katika maneno yafuatayo na uainishe mahali pa kutamkia. **(alama 1)**

Tamba

……

……

Afya

……

……

(iii) Linganua irabu katika neno;**mavue.** **(alama 1)**

……

……

(b)(i) Onyesha muundo wa silabi kwenye kiima katika sentensi ifuatayo. **(alama 1)**

Mwalimu aliwasili kwa gari ili awasilishe ripoti ya wanahabari.

……

……

(ii) Eleza tofauti kati ya sauti mwambatano na silabi mwambatano.Thibitisha kwa mfano. (**alama 2)**

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……

(c) Weka shadda panapofaa katika maneno yafuatayo. **(alama 1)**

(i)katakata (kugawa vipande.)……

(ii)katakata (kabisa kabisa)…… …….

(d)Bainisha dhamira inayoibuliwa na sentensi ifuatayo. **(alama 1)**

(i)Ombeni bila kusita.

…… …….

(e)Andika maneno yenye miundo ifuatayo. **(alama 1)**

(i)Mofimu ya nafsi ya tatu wingi,hali timilifu ,mzizi,kauli ya kutendwa,kauli ya kutenda(kiishio).

…… …….

(f)Kwa kutunga sentensi,tumia 'a'unganifu kuonyesha dhana zifuatazo; **(alama 2)**

(i)uhusiano wa cheo/kazi

…… …… ……

(ii)uhusiano wa wakati

…… …… ……

(g)Andika upya sentensi zifuatazo kulingana na maagizo.

(i)Wachezaji huenda wanaweza kushinda mchezo wa leo. **(alama 2)**

(Bila kutumia vitenzi visaidizi)

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……

(ii) Mwalimu huwaadhibu wanafunzi wapotovu.Mwalimu huwarekebisha wengi. **(alama 2)**

(unganisha kuwa sentensi changamano;Anza kwa kiunganishi)

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(iii) Maandalizi yalifanywa kwa wakati ufaao.Wanajeshi walishinda vita hivyo. **(alama 2)**

(Tumia 'ki' ya masharti kuunda sentensi moja)

……

……

……

(iv) Michuano itaanza juma lijalo.Wakufunzi wanaendelea kuwatia makali wachezaji. **(alama 2)**

(Unganisha kuwa sentensi moja inayoanza kwa: Wakufunzi…)

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(h) Tunga sententensi ukitumia aina zifuatazo za maneno. **(alama 2)**

(i)nomino ambatano

……

……

(ii)nomino ya kitenzijina

……

……

(i)Tunga sentensi ukitumia kivumishi cha pekee cha nyongeza **(alama 1)**

……

……

……

(j) Tunga sentensi ukitumia shina -w-kama ; **(alama 2)**

(i)kitenzi kisaidizi

……

……

(ii)kitenzi kishirikishi

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……

(k)(i)Eleza dhana ngeli. **(alama 1)**

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……

(l)Tunga sentensi kwa kutumia nomino zifuatazo na ubainishe upatanisho wa kisarufi. **(alama 1)**

(i)simanzi

……

……

(ii)wino

……

……

(m)Andika sentensi ifuatayayo katika hali ya ukubwa wingi; **(alama 2)**

Mama huyo aliicheza tarumbeta kwa vidole na midomo .

……

(n)Kwa kutolea mifano bainisha miundo miwili ya ngeli ya KI-VI. **(alama 2)**

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(o) Pambanua sentensi ifuatayo kwa mishale, **(alama 3)**

Bwalo ambalo lilisakafiwa litafunguliwa mwakani.

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(p)Iandike upya sentensi ifuatayo ukianza kwa shamirisho kipozi. **(alama 1)**

Alila aliwakatakatia mifugo wale nyasi kwa upanga.

……

(q)Eleza dhana chagizo. **(alama 1)**

……

……

(r)Tunga sentensi yenye muundo ufuatao; **(alama 1)**

KN(Ɵ)+KT(T)

……

……

(s)Eleza maana mbili za sentensi ifuatayo. **(alama 2)**

Hawa ni watoto wa marehemu Bwana Nzovu na Bi.Makambo.

……

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……

(t)Tunga sentensi moja kutofautisha sahibu na shaibu. **(alama 1)**

……

……

(u) Taja visawe viwili vya ,kata kamba , **(alama 1)**

……

……

ISIMU JAMII

Wewe ni chifu wa kata la Mawindoni. Umealikwa kuhutubia wanakijiji kuhusu swala la usalama.

Fafanua mtindo wa lugha utakayotumia**.** **(alama 10)**

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KCSE 2024 JOINT MOCK EXAM

MFULULIZO WA 1

102/3

KISWAHILI

KARATASI YA 3

FASIHI

MUDA: SAA 2½

JINA……

SHULE…… SAHIHI……

NAMBARI YA USAJILI…… MKONDO……

Cheti cha Kuhitimu Kisomo cha Sekondari (KCSE)

MAAGIZO

a) *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, Ushairi, Hadithi fupi na Fasihi Simulizi.*

f) ***Usijibu*** *maswali mawili kutoka sehemu moja.*

g) *Majibu yote lazima yaandikwe kwa lugha ya Kiswahili.*

KWA MATUMIZI YA MTAHINI PEKEE

SWALI	UPEO	ALAMA
1	20	
2	20	
3	20	
4	20	
JUMLA	80	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

SEHEMU YA A: *Mapambazuko Ya Machweo Na Hadithi Nyingine- Clara Momanyi*

SWALI LA LAZIMA

1. "Mike! Mike! Mike! Njoo! Nilijua utafanya vyema mwanangu…"

(a) Tambua na ueleze **toni** ya dondoo hili. (alama 2)

(b) Changanua mtindo katika dondoo hili. (alama 2)

(c) Eleza sifa **nne** za msemaji wa dondoo hili. (alama 4)

(d) Eleza mbinu **mbili** ulizozitumia kutambua sifa za msemaji wa dondoo hili. (alama 4)

(e) Tambua na ufafanue madhila yanayomsakama mhusika mkuu katika hadithi hii ya *"Sabina".* (alama 8)

SEHEMU YA B: RIWAYA

Nguu za Jadi-Clara Momanyi

Jibu swali la 2 au 3

2. Fafanua nafasi ya mhusika Sihaba katika kujenga maudhui riwayani. **(aL20)**

3. *"Nawe ulimkataa na kuolewa na mtu aliyemfahamu na kumdharau sana"*

a. Weka dondoo hili katika muktadha wake. **(aL4)**

b. Tambua sifa za msemewa wa maneno haya kwa kurejelea dondoo hili **(aL4)**

c. Kwa kurejelea riwaya nzima, jadili jinsi msemewa amepigana kuikomboa jamiiyake **(aL12)**

SEHEMU YA C: TAMTHILIA

Bembea ya Maisha- Timothy Arege

Jibu swali la 4 au 5

4."…anachukua vidonge vyake na kuvimeza kabla ya kuketi kwenye kochi mpya."

(a) Weka dondoo hili katika muktadha wake. **(alama 4)**

(b) Tambua aina za taswira katika dondoo hili. **(alama 2)**

(c) Eleza umuhimu wa mandhari ya dondoo hili. **(alama 4)**

(d) Eleza nafasi ya mwanamke ukijikita katika utamaduni wa jamii ya *"Bembea ya Maisha".* **(alama 10)**

AU

5. " Wakati mwingine maisha haya hukufanya kijisikia kama abiria kwenye gari liendalo kwa kasi. Unatamani dereva apunguze mwendo lakini unakumbuka kuwa safari bado ni ndefu na hutaki kufika ukiwa umechelewa. Basi unatulia japo ndani una wasiwasi, hutulii. Lakini huwezi kushuka maana safari itaganda. Kwa hivyo, unajitahidi tena, japo wakati mwingine unajikuta umetambaliwa na uchovu, shaka na tuhuma."

(a) Eleza muktadha wa dondoo hili. **(alama 4)**

(b) Changanua mtindo katika dondoo hili. **(alama4)**

(c) Dhihirisha umuhimu wa mzungumziwa wa maneno haya katika kuijenga tamthilia ya *"Bembea ya Maisha*". **(alama 6)**

(d) Eleza namna maisha yanamfanya mzungumzaji "kujisikia kama abiria kwenye gari liendalo kwa kasi". **(alama 6)**

SEHEMU YA D: USHAIRI

Jibu swali la 6 au 7

6. ***Soma shairi lifuatalo kisha ujibu maswali.***

Jama, Jama, Jamani
Mbona twabebeshwa mateso hivi
Mizigo mikubwa ya dhiki kama
Kwamba hatuna haki ya kusema
Kukataa ndoa za lazima
Kukataa kuozwa wazee
Kukataa kukatishwa masomo
Kukataa tohara ya lazima

Jama, Jama Jamani
Iweje tuteswe mateso haya
Na watu wasio kuwa hata na haya kama
Kwamba hatuna haki ya kulalamika
Kulalamikia kutumikishwa kama mayaya
Kulalamikia kudhalilishwa kiunyama
Kulalamikia kutolindwa na sheria

Jama, Jama, Jamani

Sasa hii ni awamu nyingine

Na macho tumeyafungua kabisa

Tumekataa kudhalilishwa kabisa

Tumekataa kuteswa kama watumwa

Tumekataa tohara ya lazima

Tumekataa kuozwa..... Tumekataa! Tumekataa

Hii awamu ya 'Haki ya mtoto wa kike'

Maswali

(a) Taja mambo **matatu** muhimu yaliyozungumziwa na mshairi kisha ueleze kila moja .

(alama 6)

(b) Eleza muundo wa shairi hili **(alama 4)**

(c) Taja mbinu **mbili** za lugha alizotumia mshairi kisha ueleze kila moja **(alama 4)**

(d) Kwa nini mshairi huyu anasema hii ni 'awamu' nyingine? **(alama 3)**

(e) Eleza maana ya maneno haya kama yalivyotumiwa na mshairi **(alama 3)**

(i) awamu

(ii) kudhalilishwa

(iii) Dhiki

AU

7. Soma shairi lifuatalo kisha ujibu maswali yafuatayo

1. Mkata ni mkatika, harithi hatoridhiwa

Sina ninalolishika, wala ninalochukuwa

Mlimwengu kanipoka, hata tone la muruwa!

Mrithi nini wanangu?

2. Sina ngo'mbe sina mbuzi, sina konde sina buwa

Sina hata makaazi, mupasayo kuyajuwa

Sina mazuri makuzi, jinsi nilivyoachwa

Mrithi nini wanangu?

3. Sina kazi sina bazi, ila wingi wa shakawa
Sina chembe ya majazi, mno nikukamuliwa
Nakwa'cheni upagazi, ngumu kwenu ku'tuwa
Mrithi nini wanangu?

4. Sina sikuachi jina, mkata hatasifiwa
Hata nifanye la mana, mno mi kulaumiwa
Poleni wangu sana, sana kwenu cha kutowa
Mrithi nini wanangu?

5. Sina leo sina jana, sina kesho kutwaliwa
Sina zizi sina shina, wala tawi kuchipuwa
Sina wanangu mi sina , sana la kuacha kuraduwa
Mrithi nini wanangu?

6. Sina utu sina haki, mila yangu meuliwa
Nyuma yangu ili dhiki, na mbele imekaliwa
N'nawana na miliki, hadi nitakapofukiwa
Mrithi nini wanangu?

7. Sina ila kesho kwenu, wenyewe kuiongowa
Muwane kwa nyinyi mbinu, mwende pasi kupumuwa
Leo siyo kesho yenu, kama mutajikamuwa
Mrithi nini wananngu?

(a) Taja mambo yoyote **mawili** ambayo mtunzi angewarithisha wanawe. **(alama 2)**

(b) Eleza sababu ya mtunzi kutoweza kuwarithisha wanawe. **(alama 3)**

(c) Andika ubeti wa nne kwa lugha nathari. **(alama 4)**

(d) Dondoa mifano **miwili miwili** ya : **(alama 2)**

(i) Inkisari

(ii) Tabdila

(e) Chambua shairi hili kwa upande wa :

(i) Dhamira **(alama2)**

(ii) Muundo **(alama 4)**

(f) Eleza maana ya vifungu vifuatavyo kama vilivyotumiwa katika shairi. **(alama 3)**

(i) Mlimwengu kanipoka

(ii) Sina konde sina buwa.

(iii) Wingi wa shakawa.

SEHEMU YA E: FASIHI SIMULIZI

8. Soma utungo ufuatao kisha ujibu maswali.

Malaika
Nakupenda malaika x2
Ningekuoa malaika...
Ningekuoa dada...
Nashindwa na mali sina wee...

Ningekuoa malaika x2

Pesa, zasumbua roho yangu x2
Nami niafanyeje, kijana mwenzio
Nashindwa na mali sina wee...

Ningekuoa malaika x2

MASWALI

(a) Ainisha wimbo huu kwa kuzingatia kipengele cha maudhui**.** **(alama 2)**

(b) Andika sifa **mbili** za jamii inayosawiriwa na wimbo huu. **(alama 2)**

(c) Eleza mikakati **sita** ambayo mwimbaji angetumia kufanikisha uwasilishaji wa wimbo huu.
(alama 6)

(d) Unanuia kutumia mahojiano kukusanya habari kuhusu nyimbo za aina hii.

(i) Eleza manufaa **matano** ya kutumia mbinu hii. **(alama 5)**

(ii) Eleza changamoto **tano** za kutumia mbinu hii**.** **(alama 5)**

For Marking Schemes Contact 0746 222 000 / 0742 999 000

KCSE 2024 JOINT MOCK EXAM

SERIES 1

443/1

AGRICULTURE

PAPER 1

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

i. *This paper consists of THREE sections **A**, **B** and **C***

ii. *Answer **ALL** questions in **sections A** and **B** and **Any TWO** questions in **section C***

iii. *Answer to **ALL** questions **MUST** be written in the spaces provided.*

FOR EXAMINERS' USE ONLY

Section	Questions	Maximum Score	Candidate's Score
A	1 - 17	30	
B	18 - 21	20	
C	22 - 24	40	
TOTAL SCORE		**90**	

SECTION A (30marks)

Answer ALL questions in this section in the spaces provided

1) Give four aspects of rainfall that affect agricultural production. **(2mks)**

……

……

……

……

2) State four factors considered when choosing water pipes for use in the farm. **(2mks)**

……

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……

3) List down four types of water erosion. **(2mks)**

……

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……

4) Give three classes of weeds on the basis of growth cycle. **(1½mks)**

……

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……

……

5) Define the term pest. **(1mk)**

……

……

……

6) State four reasons why burning of bushes is discouraged as a method of land clearing. **(2mks)**

……

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……

7) Outline four factors considered when grading tomatoes. **(2mks)**

……

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……

……

8) State four problems associated with marketing agricultural produce **(2mks)**

……

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……

9) Give three maintenance practices carried out on water tanks. **(1 ½ mks)**

……

……

……

……

10) Give four characteristics of agroforestry trees **(2mks)**

……

……

……

……

11. Define the following terms. **(2 mks)**

(i) Nursery bed

……

……

(ii) Seed bed

……

……

(iii) Pricking out

……

……

(iv) Hardening off

……

……

12. List four financial documents used in the **farm** **(2mks)**

……

……

……

……

13. List down four factors of production. **(2mks)**

……

……

……

……

14. Name the parts harvested for each of the following crops. **(1 ½ mks)**

(a) Onions

……....

(b) Carrots

……...…….

(c) Coffee

……...

15. Name four main methods of controlling pests in the farm. **(2mks)**

……

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16. Mention three ways of applying water to crops **(1 ½ mks)**

……

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……

……

17. Differentiate between pomoculture and olericulture **(1mk)**

……

……

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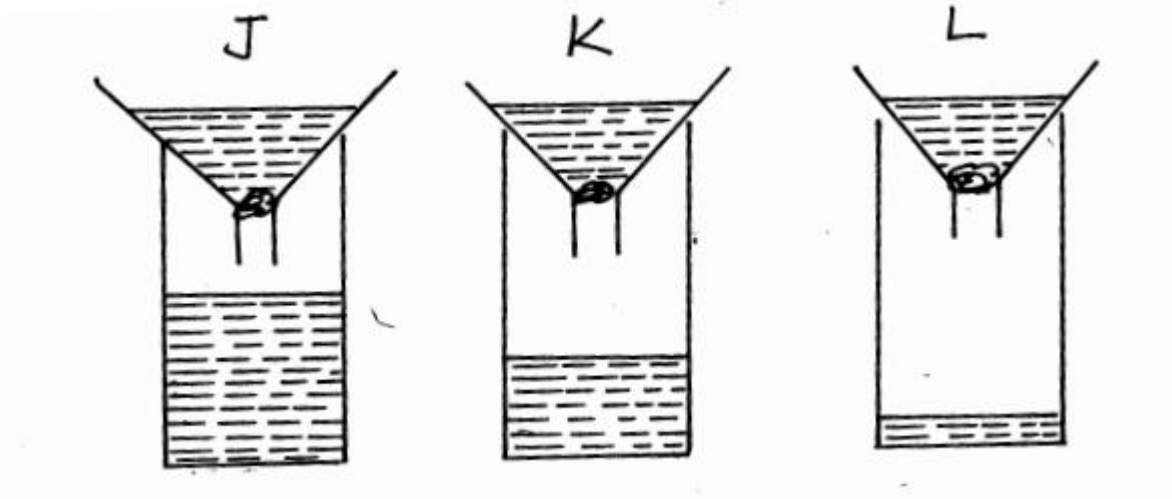
SECTION B (20 MKS) Answer ALL questions in this section

18.a) A farmer in Kabondo was advised to apply 80 kg of nitrogen to his maize plantation during top dressing. The fertilizer available was calcium ammonium nitrate (20% N) .Calculate the amount of this fertilizer in kilograms the farmer should purchase **(2mks)**

b. At what stage should the farmer top dress his maize crop **(1mk)**

c. State three methods of fertilizer application **(3mks)**

19.The diagram below illustration an investigation on property of soil using samples labeled J,K and L



a.) If the level of water drained into the test tubes were observed after two hours, name the property of soil being investigated **(1mk)**

b.) What is the relationship between this property of soil and the size of soil particles **(1mk)**

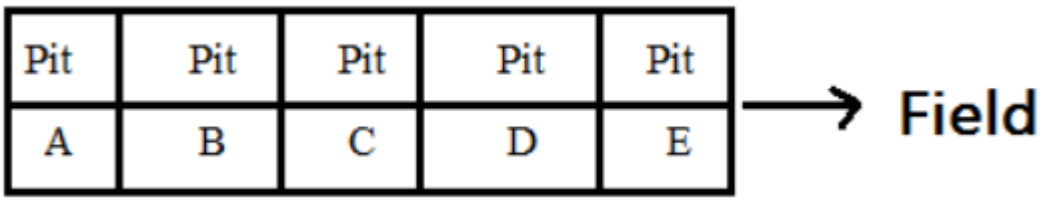
c.) Which soil sample will be suitable for growing paddy rice ? **(1mk)**

d.) Name the type of soil labeled **(2mks)**

J. ……

L. ……

20. Study the illustration below of making compost manure and answer the questions that follow.

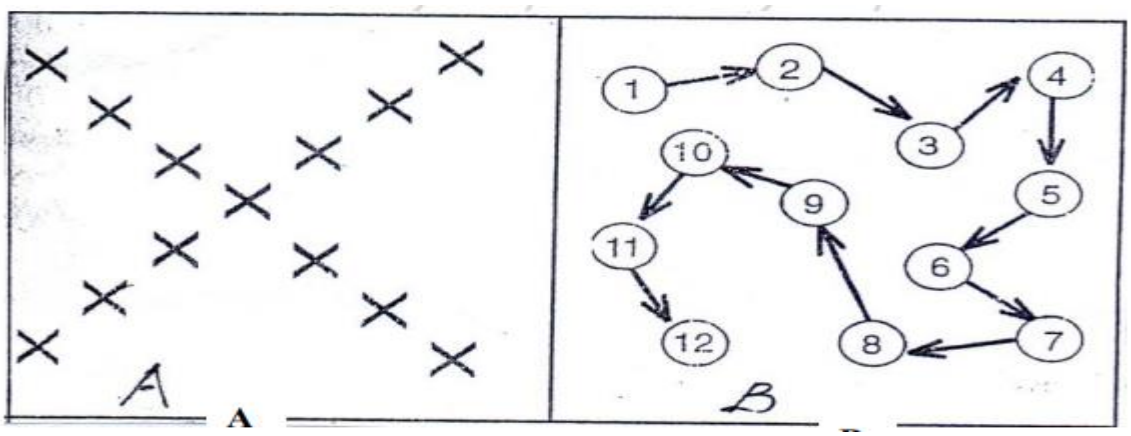


(a) Name the method of making compost manure illustrated above. **(1mk)**

(b) Name the other method of making compost manure. **(1mk)**

(c) State three qualities of well decomposed compost manure**.** **(3mks)**

21. The following diagrams illustrate two methods of soil sampling.Study them and answer questions that follow .



(a) What do diagrams A and B represent? (**2 marks)**

A……..……

B……..……

(b) Describe the procedure of soil sampling. **(3 marks)**

SECTION C (40mks) Answer only two questions in this section

22. (a) Describe seven cultural or biological methods of soil and water conservation**. (7 marks)**

(b) Describe the importances of keeping farm records **. (7 marks)**

(c) Explain six objectives of the million acre scheme of land settlements. **(6 marks)**

23[a] Describe the growing of dry bean seeds under the following sub headings.

(i) Selection and preparation of planting materials. **(3marks)**

(ii)Planting. **(4marks)**

(iii) Weeding. **(3marks)**

(b) Describe the environmental conditions that may lead to low crop yields **(10 marks)**

24. (a) Explain seven factors that influence seed rate in crop production. **(7mks)**

(b) Outline seven safety precautions observed when using herbicide in the farm. **(7mks)**

(c) Explain briefly any six factors that affect the quality of hay a farmer may produce in the farm. **(6mks)**

KCSE 2024 JOINT MOCK EXAM

SERIES 1

443/2

AGRICULTURE

PAPER 2

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

i. *This paper consists of THREE sections **A**, **B** and **C***

ii. *Answer **ALL** questions in **sections A** and **B** and **Any TWO** questions in **section C***

iii. *Answer to **ALL** questions **MUST** be written in the spaces provided.*

FOR EXAMINERS' USE ONLY

Section	Questions	Maximum Score	Candidate's Score
A	1 - 17	30	
B	18 - 21	20	
C	22 - 24	40	
TOTAL SCORE		**90**	

SECTION A (30marks)

Answer ALL questions in this section in the spaces provided

1. Name **a tool** recommended for the following practices in the farm.

(i) Smoothening rough surface of wood. **(½ mark)**

……

ii) Cutting threads on pipes. **(½ mark)**

……

iii) Relieving a bloated animal of gases particularly ruminants. **(½ mark)**

……

2. Study the table below and fill in missing names **(3marks)**

Description	Cattle	Pigs	Poultry
Young from birth /hatching to weaning			Chick
Young female before parturition /laying		Gilt	
Mature male for breeding	Bull		

3. Name **two** livestock diseases controlled through artificial insemination (A.I) **(1mark)**

……

……

4. Name **two** dairy goat breeds reared in **Kenya** **(1mark)**

……

……

5. Give **four** reason of feeding calves on colostrum. **(2mark)**

……

……

……

……

6. State **four** effects of tsetse fly (Glossina spp) in livestock . **(2mark)**

……

……

……

……

7. Why is raddling essential in sheep management. **(1mark)**

……

……

……

8. State **four** factors considered when setting a pigsty in the farm. **(2mark)**

……

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……

……

9. Name four sources of power in the farm **(2mks)**

……

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……

10. State **four** predisposing factors to the occurrence of mastitis in dairy cattle. **(2mark)**

……

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……

11. Why are the following conditions maintained during artificial incubation of eggs in poultry production?

a. Proper ventilation. **(1mark)**

……

……

b. Relative humidity maintained at 60%. **(1mark)**

……

……

12. Give **four** reason for keeping a herd of dairy cattle healthy. **(2mark)**

……

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13. Differentiate between the following terms as used in livestock production

a. Close breeding and line breeding. **(1mark)**

……

……

……

b. Crutching and ringing. (**1mark)**

……

……

……

14. State **four** reasons for maintaining farm tools and equipment. **(2marks)**

……

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……

15. Name **four** ways of restraining cattle during routine management. **(2mark)**

……

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……

16. State the factors that determine the amount of water an animal drinks. **(2marks)**

……

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……

17. State **five** causes of stress in a flock of layers. **(2½ marks)**

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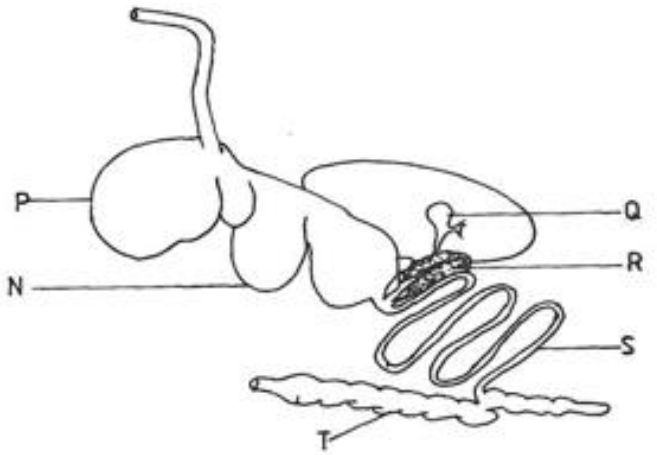
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SECTION B (20MARKS)

Answer all answers to this section in the spaces provided.

18. The diagram below shows part of the digestive system of livestock



a. Name **one** livestock with the above digestive system **(1mark)**

……

b. Name parts labelled P and N **(2marks)**

p……..…..…

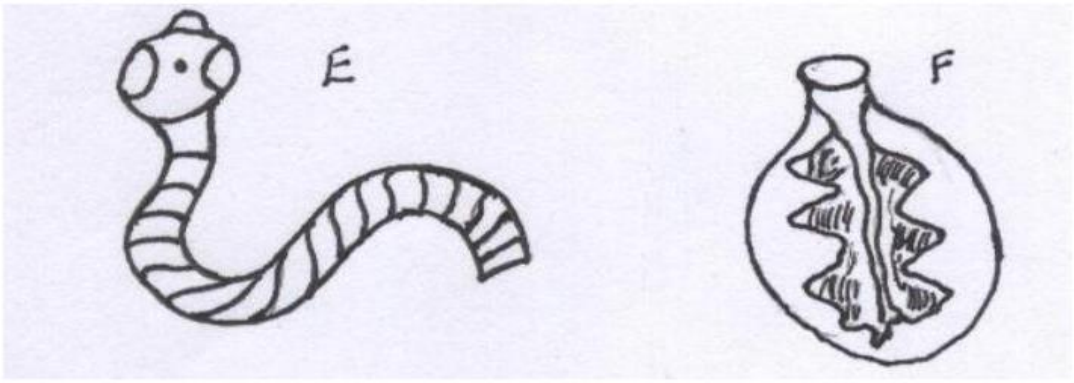
N…….……...

c. State **two** functions of part labelled P **(2marks)**

……

……

19. Below shows livestock parasites study them and answer questions that follow



a) Identify parasite labeled E and F**.** **(1mark)**

E……..

F……..

b) Name the organ in which each parasite is commonly found. **(1mark)**

E……

F……

c) Name the intermediate host of the parasite labeled E. **(1mark)**

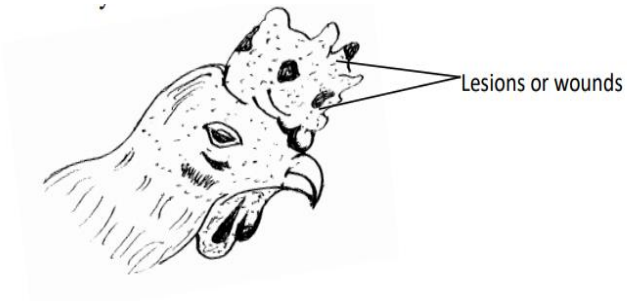
……

d) State two control measures of the parasite labeled F in livestock production. **(2mark)**

……

……

20. The diagram below shows a poultry disease. Study it and answer the question that follow



a) Identify the disease. **(½ mark)**

……

b) State the causative agent of the above. **(½ mark)**

……

c) Apart from wounds or lesions or state any other two symptoms of the above disease **(2marks)**

……

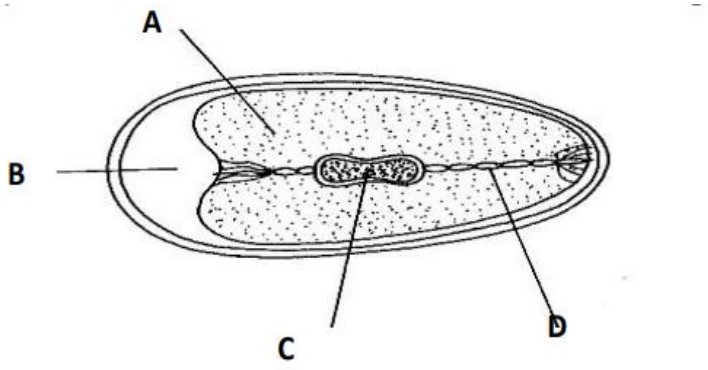
……

d) State two control measures of the above **(2marks)**

……

……

21. The diagram below is an illustration of an egg. Study it carefully and answer the questions that follow.



a) Name the parts labelled A, B, C, and D.

A…….. **(½ mark)**

B……. **(½ mark)**

C……. **(½ mark)**

D…… **(½ mark)**

b) State two qualities that should be considered when selecting eggs for incubation **(2mark)**

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c) What is the function of the part labelled C in a fertilized egg **(1mark)**

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SECTION C (40 MARKS)

Answer any two questions from this section in the spaces provided

22. a) Describe the process of milk secretion (**5marks)**

b) outline the advantages of battery cage system of rearing poultry **(8marks)**

c) Describe various management carried out in a fish pond to ensure maximum harvest of fish **(7marks)**

23. a) Describe general methods of controlling livestock diseases **(10marks)**

b) Give eight differences between a petrol and diesel engine **(10marks)**

24. a) Describe the process of egg formation in the reproductive system of a hen **(12marks)**

b) Describe the ideal characteristics of an ideal calf pen **(8marks)**

KCSE 2024 JOINT MOCK EXAM

SERIES 1

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 and admission number in the spaces provided above.*
2. *Answer ALL the questions*
3. *ALL answers must be written in the spaces provided in this booklet.*

FOR EXAMINERS'S USE ONLY

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

Question	13	14	15	16	17	18	19	20	21	22	23	24	25

TOTAL MARKS

For Marking Schemes Contact 0746 222 000 / 0742 999 000

1. Highlight **four** micro environmental factors that may cause business failure. **(4marks)**

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2. Indicate the level of production that relates to each of the following activities. **(4marks)**

ACTIVITY	LEVEL OF PRODUCTION
Repairing shoes	
Construction of bridge	
Picking tea	
Milling coffee	

3. Musyoka has been self-employed since completion of university education. Outline **four** shortcomings of being self-employed. **(4marks)**

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4. ABC Company limited has been the only supplier of commodity X in the entire market. Highlight **four** possible sources of its power. **(4marks)**

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5. Outline **four** circumstances under which a business may prefer partitioned office layout over open office layout. **(4marks)**

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6. Indicate the business document to which each of the following description relate. **(4 marks)**

Description	Document
Used to alert the buyer that the goods ordered are on the way.	
A reply to a specific enquiry about the goods sold by the trader.	
Used to request for payment before goods are delivered.	
Shows the transactions that have taken place between the business and the credit customer for a given period of time.	

7. Name the type of business organization described in the following. **(4marks)**

a) Formed by an act of parliament……...

b) Formed by between two to fifty partners…….

c) Owned by a single trader……..

d) A business structure that is a separate legal entity from its owner……..

8. Internet marketing is the process of promoting a business or brand and its products or services over the internet using tools such as social media, emails and websites. State **four** benefits that Joan a trader may get from internet marketing. **(4 marks)**

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9. Highlight **four** reasons why trader may prefer to hire a warehouse rather than building his/her own warehouse. **(4 marks)**

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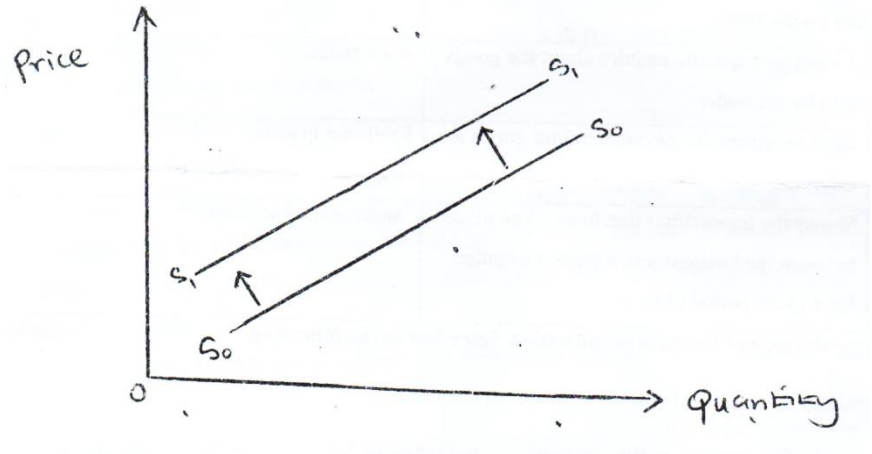
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10. Study the diagram below and answer the question that follow:



Identify **four** ways that may have led to the shift. **(4marks)**

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11. Highlight **four** reasons why small scale businesses continue to thrive in Kenya, despite the high competition from the large scale firms. **(4marks)**

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12. A farmer's house valued at Ksh 1,200,000 was insured against fire for ksh 900,000 under 'with average clause'. Fire occurred and damaged the house causing loss of Ksh 500,000. Determine the value of compensation due to the farmer. **(4marks)**

13. Highlight **four** limitations of using consumer-initiated methods in consumer protection. **(4mks)**

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14. List **four** sources of public finance. **(4marks)**

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15. Indicate whether the following transactions will cause increase, decrease or no effect on the balance sheet totals. Use (+) for increase, (-) for decrease and (N.E) for no effect. **(4marks)**

	TRANSACTION	**EFFECT ON BALANCE SHEET TOTALS**
i.	Bought stock of goods worth sh. 45 000/- by cash	
ii.	Sold an old computer for sh. 100 000/- on credit	
iii.	Additional capital worth sh. 100 000/- introduced by the owner	
iv.	Cleared a bank overdraft by depositing a cheque worth sh. 20 000/-	

16. The following figures relate to Mwembe Tayari Traders for the year ended 31st December, 2022.

	ITEM	AMOUNT(Ksh)
i.	Capital (31st December, 2022)	470 000/-
ii.	Net loss	10 000/-
iii.	Monthly additional investments	17 500/-
iv.	Drawings	30 000/-

Determine capital as at 1st January, 2022. **(4marks)**

17. The following information was extracted from jimmy traders for the year ending 31st Dec, 2023.

i) Carriage on sales – 100 000/=
ii) Carriage on purchases – 50 000/=
iii) Stock (1.1.2023) – 200 000/=
iv) Purchases – 700 000/=
v) Return outwards – 25 000/=
vi) Return inwards – 60 000/=
vii) Closing stock – 27 000/=

Required:-

Calculate net purchases. **(4marks)**

18. Indicate the source document used to record the following transactions. (4marks)

	TRANSACTION	SOURCE DOCUMENT
i.	Received payment worth shs. 50 000/- in cash from a debtor.	
ii.	Sale of goods worth shs. 100 000/- on credit	
iii.	Purchase of stock of goods worth shs. 179 000/=-on credit	
iv.	Return of goods worth shs. 15 000/- to suppliers	

19. The following amounts to Lewis Retail business for the month of September, 2020.

i) Sales – shs. 500 000/=

ii) Cost of goods sold – shs. 300 000/=

iii) Return inwards – shs. 50 000/=

iv) Expenses were 10% of sales

v) Discount received – shs. 120 000/=

Calculate:-

(a) Mark – up **(2marks)**

(b) Net profit **(2 marks)**

20. In the spaces provided indicate by writing true or false whether each of the following statements is true or false about articles of association of a company. **(4marks)**

	Statement	**True/false**
(a)	It contains the activities the company is engaged in.	
(b)	It indicates the procedure to be followed in calling meetings.	
(c)	It indicates the liabilities of the shareholders.	
(d)	It contains the rights of each class of shareholders.	

21. The following balances were extracted from the books of Spring Valley traders on 30th April 2023.

	Sh.
Discounts received	7, 200
Purchases	89, 000
Sales	100, 000
Opening stock	80, 000
Capital	160, 000
Carriage on sales	30, 000
General expenses	68, 200

Prepare a trial balance as at 30th April 2023. **(4 marks)**

22. State four measures that the government may put in place to reduce the amount of money in circulation. **(4 marks)**

……

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23. Highlight four categories of business activities. **(4marks)**

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24. List four characteristics of economic resources. **(4marks)**

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25. State the term represented by the following definitions. **(4 marks)**

(a) This is the value of the best next alternative foregone when acquiring something……...

(b) This means limited or not adequate in supply……

(c) Selecting that human want to satisfy first based on the scale of preference……...

(d) Use of a good or service to satisfy human want……

KCSE 2024 JOINT MOCK EXAM

SERIES 1

565/2

BUSINESS STUDIES

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

Instructions to candidates

1. *This paper consists of* ***six*** *questions.*

2. Answer any ***five*** *questions.*

3. Write your answers in the answer sheets provided.

4. All questions carry equal marks

FOR EXAMINER'S USE ONLY

QUESTION	1	2	3	4	5	6	TOTAL
MARKS							

*Answer any **five** questions.*

1(a) Discuss **five** benefits that a customer may get by using automated teller machines (ATMs)for financial **transactions** **(10marks)**

b)Explain **five** demerits of output approach in measuring national income **(10marks)**

2(a) Explain **five** government-initiated methods of consumer protection **(10marks)**

b)Explain **five** types of direct taxes that the government may use to collect revenue from individuals and companies **(10 marks)**

3(a) Explain **five** clauses that must be specified in Memorandum of Association of a public limited company **(10 marks)**

b)The following information relates to Wako traders

Details	sh
stock 1St January 2023	43000
purchases	95000
sales	123000
carriage outwards	2500
carriage inwards	1000
returns outwards	2000
returns inwards	3000
general expenses	10000
insurance	2500
stock 31st December 2023	47000

calculate:

i) Turnover **(1 mark)**

ii) Rate of stock turnover **(3 marks)**

iii) Mark up **(2marks)**

iv) Margin **(2marks)**

v) Net profit **(2marks)**

4(a) Discuss **five** causes of unfavorable balance of payment for most developing countries **(10 mks)**

b) Explain **five** factors that an entrepreneur would consider when evaluating a business idea **(10 mk**

5 (a) On 1st January 2012, Chumo traders had the following balances: cash 15000 and bank 40000 During the month, the following transactions took place.

Jan: 2 Maritim, a debtor fully settled his account of sh 10000 by cheque of shs 8000

5 Deposited sh 4000 into the business bank account from the cash till

9 Paid wages by cash sh 5000

14 sold goods in cash sh 14000
17 purchased office equipment worth shs 3000 paying by cheque
18 settled Korirs account sh 10000 by cash after being allowed a discount of 5%
21 received sh 6000 cash from Kolongei a debtor
23 Tangus, a debtor settled his sh 4000 account by cheque having been allowed a discount of 20%
27 Deposited shs 17000 in the business bank account from private sources
30 Banked all the cash in the till except sh 1000

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

b) Explain **five** ways of making face to face communication effective **(10 marks)**

6 (a) Explain **five** negative implications of a youthful population (10marks)

b) The following trial balance was prepared by Afya Bora Chemist on 31st December 2020

Particulars	DR sh	CR sh
Premises	850000	
Debtors	650500	
Creditors		820000
Motor vehicle	800000	
Equipment	550500	
Gross profit		1960200
Furniture	350000	
Stock	75000	
Bank	200000	
Cash in hand	150000	
General expenses	117800	
Discount received		66100
Commission allowed	12400	
Insurance	7500	
Lighting	4600	
Salaries	78000	
Capital		1000000
	3846000	3846000

Using the information given above prepare:

i) A profit and Loss account (**4 ½ marks)**

ii) A balance sheet **(5 ½ marks)**

KCSE 2024 JOINT MOCK EXAM

SERIES 1

231/1

BIOLOGY

PAPER 1 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO THE CANDIDATES

- *Write your name and admission number in the spaces provided above*
- *Write the name of your school and the date of examination in the spaces provided above*
- *Answer **ALL** the questions in the spaces provided.*
- *Answers must be written in the spaces provided in the question paper.*
- *Additional papers must not be inserted.*
- ***Candidates should answer the questions in English.***

FOR EXAMINER'S USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1-32	80	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

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

1. Name **one** factor in nature that increases the process of evolution. **(1mk)**

……

2. What is meant by the term "**oxygen debt**" **(2mks)**

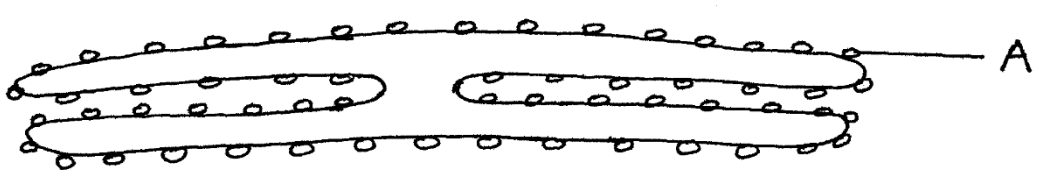
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3. Differentiate between characteristics of members of Monera and those of Protoctista **(2mks)**

Monera	**Protoctista**

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



(a) Name the organelle. **(1mk)**

……

(b) State function of the structure labeled A **(1mk)**

……

……

5. State two functions of the substance secreted by sebaceous glands. **(2mks)**

……

……

……

6. In an experiment, the pituitary gland of a rat was removed.

(a) State the effect that this will have on the quantity of urine produced by the rat. **(1mk)**

……

……

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

……

……

7. The lungs and ileum are adapted for absorption. State **three** features they have in common which facilitate absorption. **(3mks)**

……

……

……

8. State the function of the diaphragm in the light microscope. **(1mk)**

……

9. Explain why food is stored in an insoluble form in the cells of living things. **(1mk)**

……

……

10. Name two components of blood that are not present in the glomerular filtrate. **(2mks)**

……

……

11. (a) State the importance of the following features in gaseous exchange.

(i) Cartilages in the trachea. **(1mk)**

……

……

(ii) Moisture on the surface of alveoli **(1mk)**

……

……

(b) Name **two** sites where gaseous exchange takes place in terrestrial plants. **(2mks)**

……

……

12. i. Explain how the following adaptations minimize the rate of transpiration.

(a) Sunken stomata **(1mk)**

……

……

(b) Leaf drooping **(1mk)**

……

……

ii. State **two** environmental factors that influence the rate of transpiration. **(2mks)**

……

……

13. State the role of decomposition in an ecosystem. **(2mks)**

……

……

14. An animal is found to have large glomeruli and short loop of Henle. Account for the presence of

(i) Large glomeruli **(1mk)**

……

……

(ii) Short loop of Henle. **(1mk)**

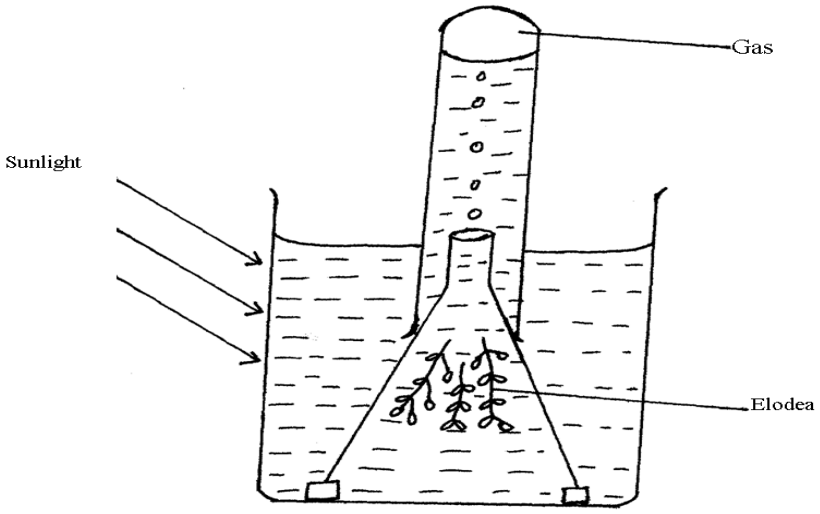
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(iii) State the possible habitat of the above organism **(1mk)**

……

15. The diagram below represents a set up that was used to investigate a certain process in a plant. Both the beaker and funnel are transparent.



(a) State the process that was being investigated **(1mk)**

……

(b) Name the gas collected in the gas jar **(1mk)**

……

(c) State one factor that would affect the process **(1mk)**

……

16. Name the sites where light and dark reactions of photosynthesis take place. **(2mks**

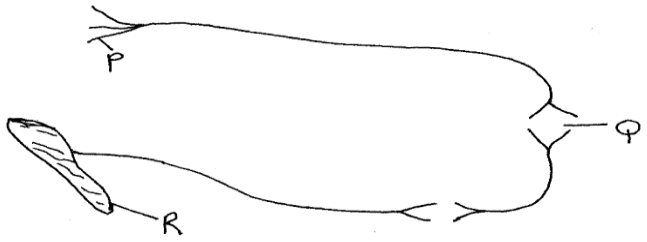
(i) Light stage reaction

……

(ii) Dark stage reaction

……

17. The diagram below represents a reflex arc in human beings



(a) Name the parts labeled Q and R. **(2mks)**

Q

……

R

……

(b) What is the function of part labeled P? **(1mk)**

……

(c) Using arrows, indicate the direction of impulse transmission on the diagram **(1mk)**

18. (a) What is the meaning of the following terms as used in ecology**.** **(2mks)**

(i) Autecology

……

……

(ii) Synecology

……

……

(b) The number and distribution of stomata on three different leaves are shown in the table below.

Leaf	Number of	stomata
	Upper epidermis	Lower epidermis
A	450	0
B	185	270
C	03	15

Suggest the possible habitats of the plants from which the leaves were obtained. **(3mks**

A ……

B ……

C ……

19. A bone obtained from a mammal is represented by the diagram below



(a) (i) Name the bone shown above? **(1mk)**

……

(ii) State one reason for your answers in (a) (i) above **(1mk)**

……

……

(b) Name a bone articulate with bone shown in the diagram above at the notch . **(1mk)**

……

20. (a) Explain why pepsin in stomach of man is secreted in inactive/precursor form. **(1mk)**

……

……

(b) Which gland secrets pepsinogen. **(1mk)**

……

21. Name the regions in plants where the following take place **(2mks)**

(i) Primary growth

……

(ii) Secondary growth

……

22. The figure below illustrates a portion of chromosome with genes E, G, H, P, Q and R

E	G	H	P	Q	R

Using diagrams similar to the one above, illustrate the changes that the above chromosome would undergo. If the following **mutations** occurred on gene H and P.

(a) Deletion **(1mk)**

(b) Inversion **(1mk)**

(c) Duplication **(1mk)**

23. (a) Name the type of skeleton that arthropods have. **(1mk)**

……

(b) What substance is the arthropods skeleton made of? **(1mk)**

……

24. In view of modern genetics, explain why Lamarck's theory is unacceptable. (**2mks)**

……

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25. State two ways in which genetic engineering is applied in the field of medicine. **(2mks)**

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26. What is the functional difference between a tendon and ligament. **(1mk)**

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27. (a) How is **fovea centralis** adapted for its function in the human eye. **(2mks)**

……

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……

(b) A person was not able to see far objects clearly but could view near objects clearly. Name the eye – defect the person had. **(1mk)**

……

(c)How can the defect be corrected. **(1mk)**

……

……

28. State two functions of a chloroplast. **(2mks)**

……

……

29. State three differences between osmosis and active transport. **(3mks)**

Osmosis	Active transport

30. (a) State **two** functions of an ovary in a human female. **(2mks)**

……

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……

(b) State **two** advantages of internal fertilization in mammals. **(2mks)**

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31. State **two** features of petals that enhances insect pollination. **(2mks)**

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32. How are halophytes adapted for survival in their habitats. **(2mks)**

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THE END

KCSE 2024 JOINT MOCK EXAM

SERIES 1

231/2

BIOLOGY

PAPER 2 (Theory)

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

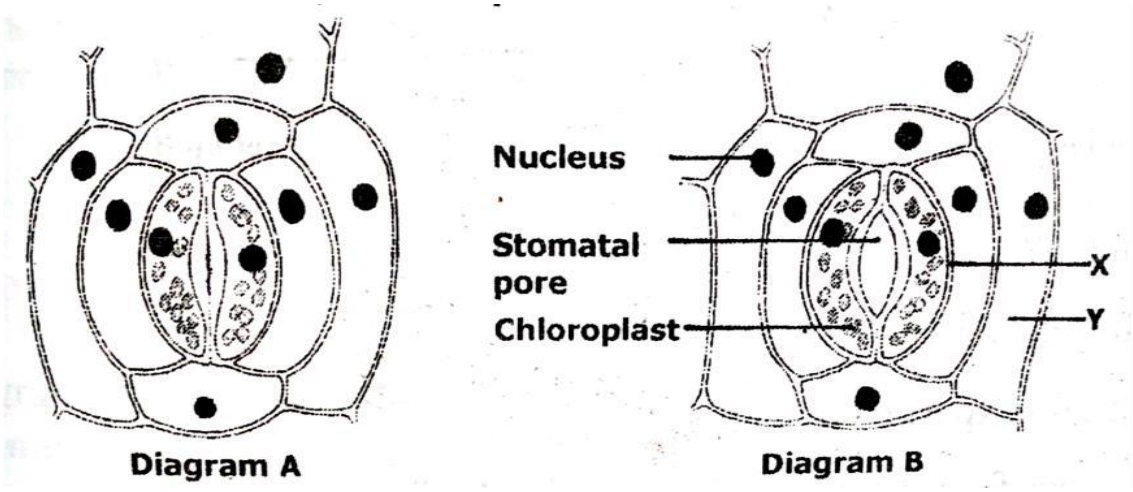
1. *Write your Name, Admission Number, and Class/Form in the spaces provided above.*
2. *This paper contains **THREE Sections.** Answer **ALL** the questions in the spaces provided **IN THIS PAPER**.*
3. ***ALL** the answers must be clear and precise.*
4. *Answer all the questions using correct English.*

FOR EXAMINER'S USE ONLY

SECTION	QUESTION	MAX. SCORE	CANDIDATE'S SCORE
A	1-5	40	
B	6 (Compulsory)	20	
	7or 8	20	
TOTAL		**80**	

SECTION A

1. The diagram below shows a part of a plant tissue.



a) Name cell X and Y. **(2 marks)**

X

Y

b) Diagram B is drawn to show the change that has occurred in A. State the change**. (1mark)**

……

……

c) Explain how light could bring the change you have stated in (b) above**.** **(5 marks)**

……

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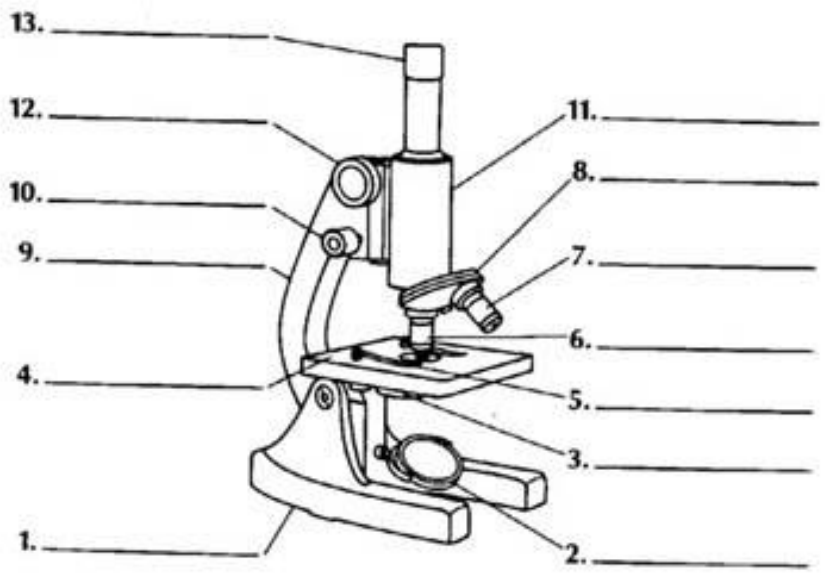
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2. The diagram below shows a light microscope. On the diagram, label the part responsible for the following functions as X, Y, and Z as follows:



a) i) Produce precise and fine focusing - **X** **(1mk)**

ii) Concentrate light on stage - **Y.** **(1 mark)**

iii) Change from one objective lens to the other - **Z.** **(1 mark)**

b) Give two functional differences between the above microscope and the electron microscope **(2mks)**

Light microscope	Electron microscope

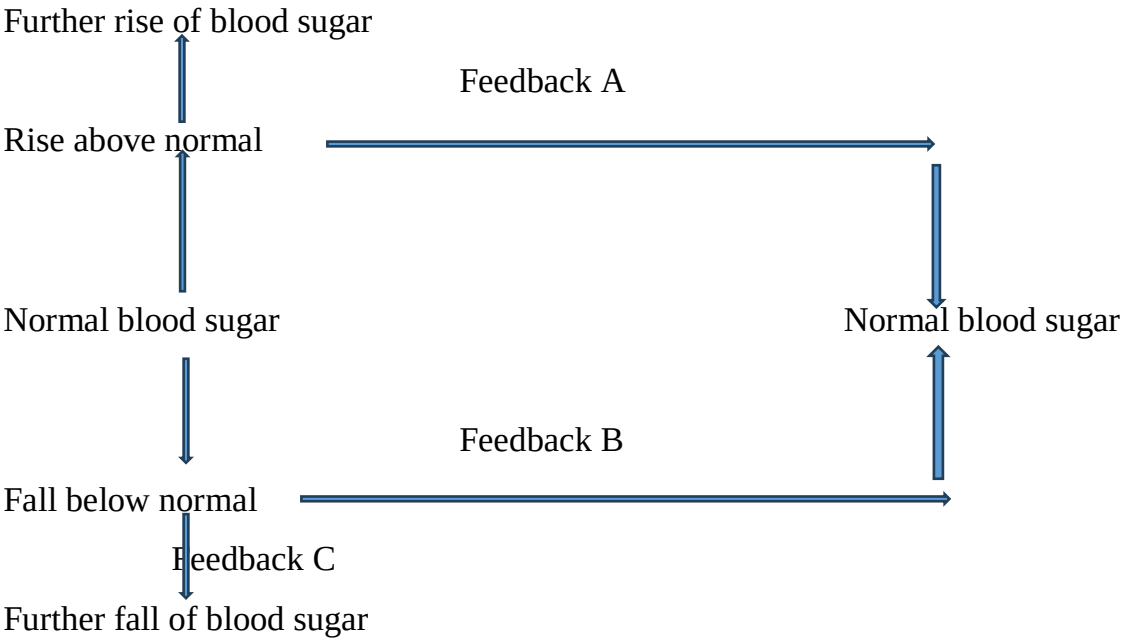
c) Give the importance of the following in microscopy

i.Cutting a thin section **(1mk)**

ii. Staining **(1mk)**

d) Write down the formula for obtaining magnification using a light microscope. **(1 mark)**

3. The chart below represents a feedback mechanism in the human.



i. Identify feedback mechanism A and C. **(2mks)**

A

C

ii. Name the hormones involved in feedback A and B. **(2mks)**

A

B

iii. Name two organs involved in feedback B**.** **(2mks)**

iv. Pancreatic duct of an animal was cut. Digestion in the duodenum was affected but regulation of blood sugar remained normal. Explain. **(2 marks)**

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4. In tulip plants, the petals can have markings called flecks. There are two alleles for flecks in tulip plants: with flecks **F**; and without flecks **f**.

(a) Explain the meaning of the term dominant allele. **(2 marks)**

……

……

(b) A tulip grower crosses two tulip plants. He finds that 76 of the offspring have petals with flecks and 23 of the offspring have petals without flecks. Make a genetic cross to explain the results.

(4 marks)

(c) The tulip grower wants to produce a pure-breeding variety of tulips with petals without flecks. State the genotypes of the parent plants he should use to produce tulip plants without flecks. Explain your answer. **(2 marks)**

(i) Parental genotypes

……

(ii) Explanation

……

……

……

5. A Form three student came across an organism with the following characteristics;

- Have jointed appendages
- Segmented body
- Have open circulatory system
- Body covered with exoskeleton

a) Classify the organism into the following taxa

i) Kingdom **……** **(1mk)**

ii) Phylum …… **(1mk)**

a) i) Give any three importance of organisms in this phylum to plant life **(3mks)**

……

……

……

ii) Give three reasons why we should classify organisms **(3mk)**

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SECTION B (40 MARKS)

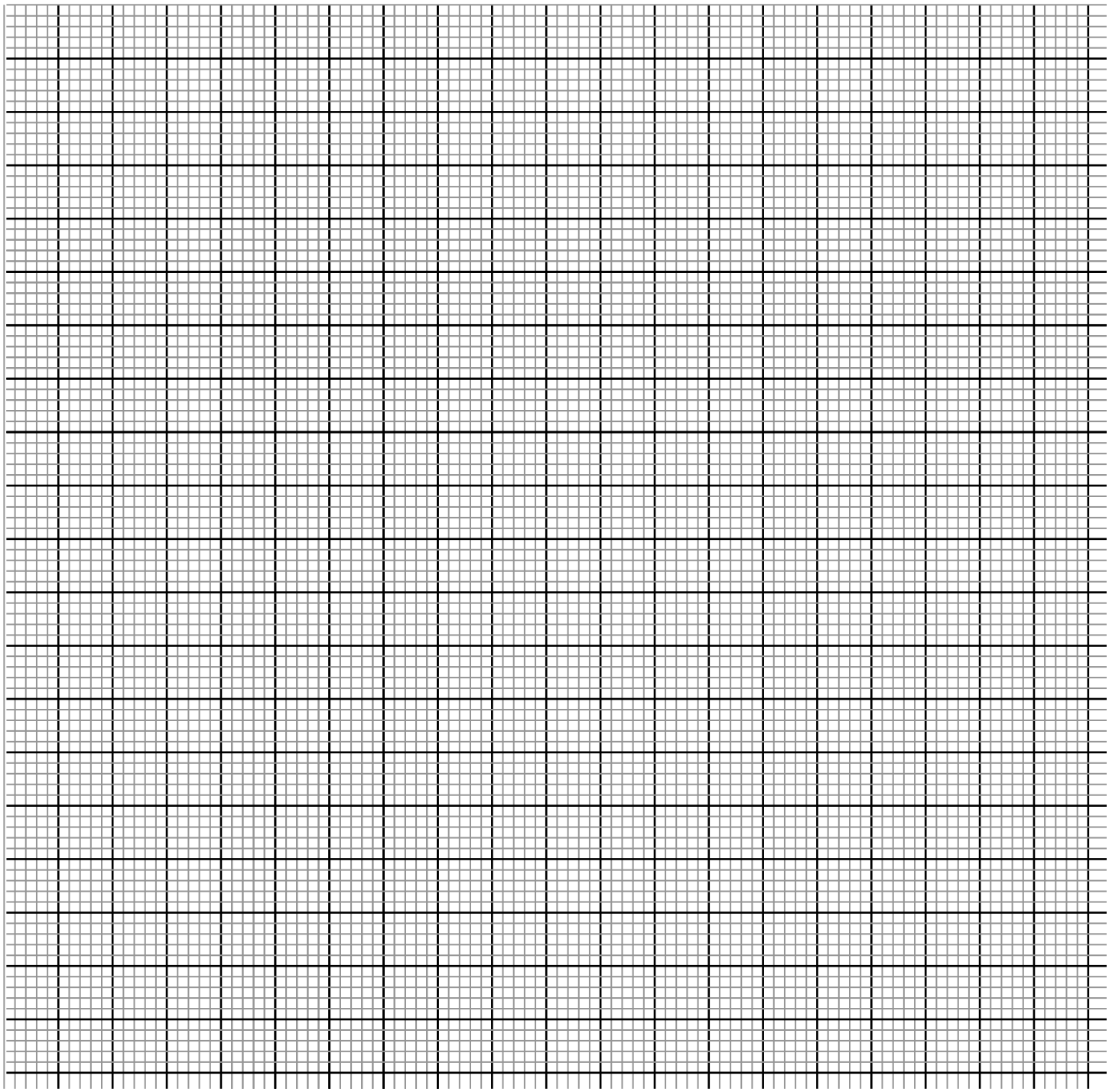
Answer TWO questions ONLY. Question 6 is compulsory. Then ANSWER question 7 or 8.

6. The data below represents the level of progesterone hormone produced in a female's body within a period of 34 days. Study the data and use it to answer the questions that follow. **N/B: The days were counted from the 1st day that menstruation was noticed.**

Day	Progesterone hormone concentration in arbitrary units
1	6
2	5
3	3
4	2
5	1
6	1
8	1
10	2
12	4
14	7
16	8
20	9
22	10
24	10
26	10
28	10

30	11
32	11
34	11

a) Plot a graph of progesterone concentration against time using a suitable scale **(6 marks)**



b) Account for the progesterone levels in the blood stream between

i) Day 1 - day 5 **(2 marks)**

……

……

……

……

ii) Day 14 - day 20 **(3 marks)**

……

……

……

……

……

iii) Day 28 - day 35 **(2 marks)**

……

……

……

c) Name two structures that produce progesterone in females **(2 marks)**

……

……

d) Suggest the process that usually takes place at day 14 **(1 mark)**

……

e) Suggest two other hormones that were in high concentration in the body of the female between days 11 -- 15. Give reasons for your answer**.** **(4 marks)**

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……

7. a) Giving examples discuss how the following evidences of organic evolution show that evolution has taken place.

i) Comparative anatomy **(6mks)**

ii) Geographical distribution **(4mks)**

iii) Comparative cell Biology **(3mks)**

b) Describe how water moves from the soil to the xylem vessels. **(7 marks)**

8. Describe the structure and functions of various organelles in a mature animal cell. **(20mks)**

KCSE 2024 JOINT MOCK EXAM

SERIES 1

231/3

BIOLOGY

PAPER 3

TIME: 1¾ HOURS

SCHOOL…… SIGN……

(Kenya Certificate of Secondary Education)

BIOLOGY CONFIDENTIAL

Each candidate will require the following:

3 bean seedlings as follows:

One grown under normal conditions labelled **A**

One grown in the dark labelled **B**

One grown in the dark with unilateral source of light labelled **C**

NB:

The curvature of the seedling **C** towards source of light should be obvious.

Germination time 10 – 14 days.

- ✓ Iodine solution
- ✓ White tile
- ✓ Dropper
- ✓ 2 test-tube
- ✓ Mortar & pestle
- ✓ 2 labels

Coloured photographs

KCSE 2024 JOINT MOCK EXAM

SERIES 1

231/3

BIOLOGY

PAPER 3 (PRACTICAL)

TIME: 1¾ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO THE CANDIDATES

- *Write your **name** and **admission number** in the spaces provided above.*
- *Write the **date** of examination in the spaces provided.*
- *Answer **all** questions in the spaces provided.*
- *You are required to spend the first 15 minutes of the **1 ¾** to read the questions*
- *Candidates should answer the questions in **English.***

FOR EXAMINER'S USE ONLY:

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1	16	
2	12	
3	12	
TOTAL	**40**	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

1. You are provided with three sets of seedlings labelled A, B and C.

Examine them and answer the questions that follow:

(a) State the conditions under which seedling A and B were grown. **(2marks)**

A ……

B……

(b) (i) Name the type of germination exhibited by the seedlings. **(1mark)**

……

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

……

……

(c) List two observable differences between seedlings A and B. **(2marks)**

A	**B**

(d) Name the term used to describe the phenomenon exhibited by specimen **B** **(1mark)**

……

(e) (i) Name the response exhibited by the seedlings labelled **C**. **(1mark)**

……

(ii) Explain how the response named in (e) (i) above occurred. **(2marks)**

……

……

……

(f) Separately, pluck, cut and crush the leaves from seedling **A** and **B.**

Place the crushed extract into separate test-tubes labelled $\mathbf{A_1}$ and $\mathbf{B_2}$.

Add 2ml of water to form solutions A_1 and B_1 respectively.

(i) Using the reagent provided, carry out food test on $\mathbf{A_1}$ and $\mathbf{B_1}$. **(4 marks)**

Test for	Procedure	Observation	Conclusion

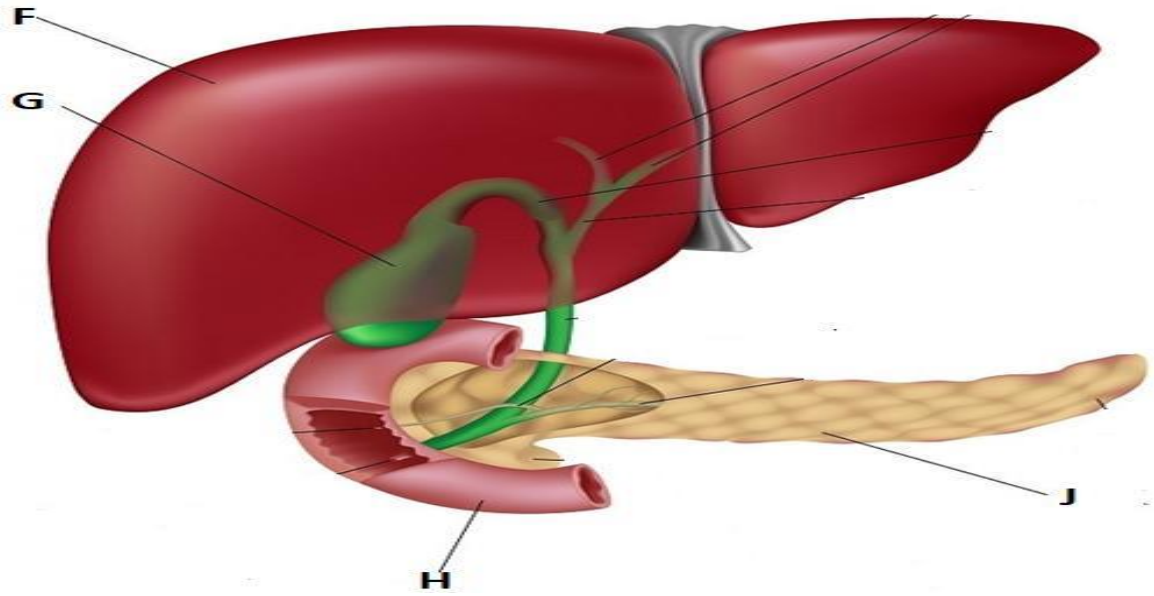
(ii) Account for the results obtained (f) (i) above. **(2marks)**

……

……

……

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



(a) Identify the following parts. **(2mks)**

F ……

G……

(b) (i) Identify the secretion stored in the part labelled G. **(1mk)**

……

(ii) Give two functions of the secretion you have identified in b (i) above. **(2mks)**

……

……

(c) (i) Give two major roles of the part labelled J. **(2mks)**

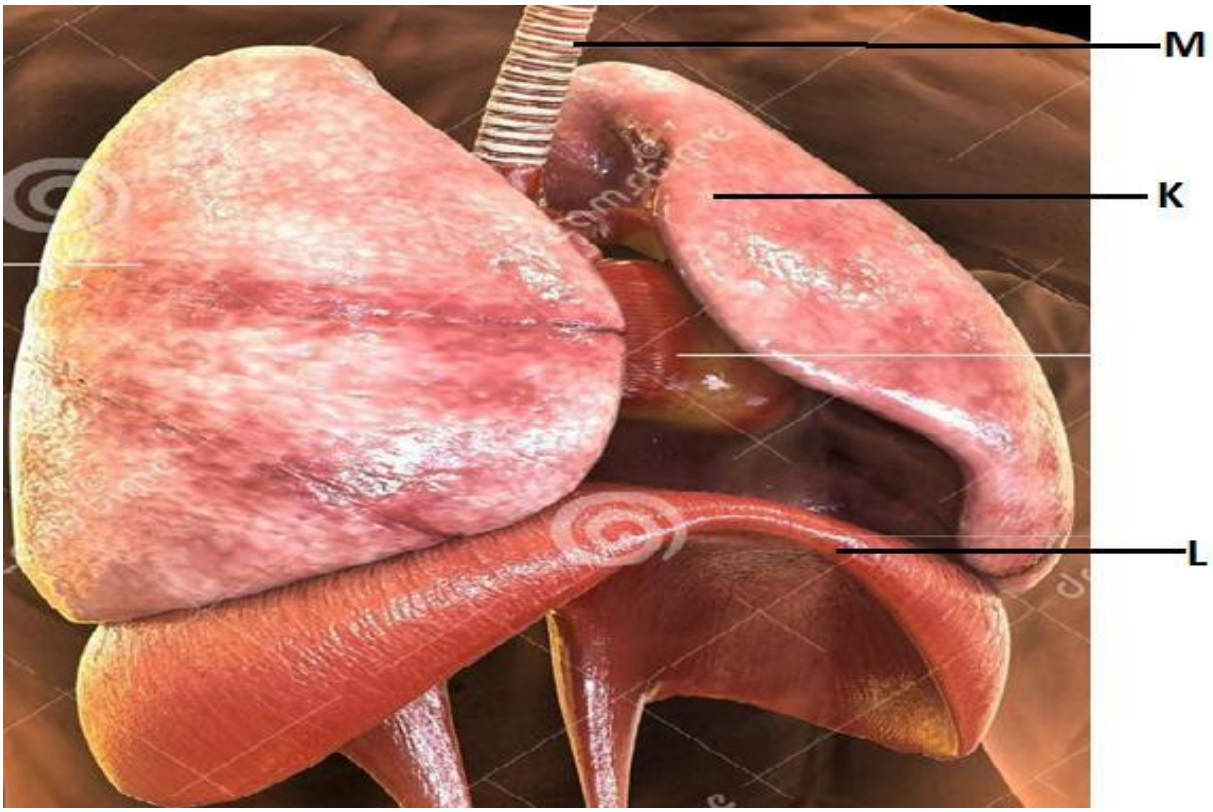
……

……

(ii) State the hormone secreted by the part labelled H. **(1mk)**

……

(d) Study the photograph below and answer the questions that follow.



Identify the following part. **(2mks)**

K ……

L ……

(i) Give two adaptations of the part labelled M. **(2mks)**

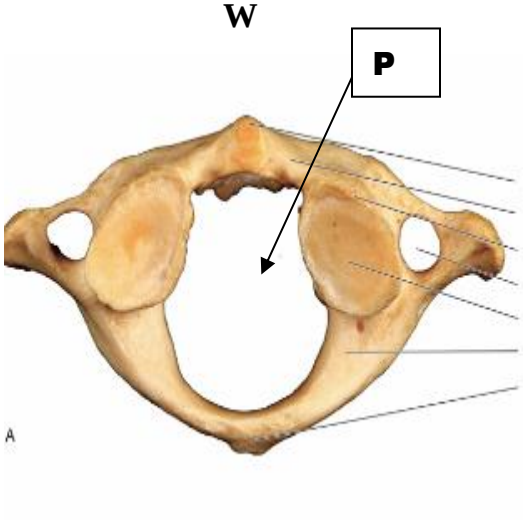
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3. You are provided with photograph of specimen W, Y and Z.

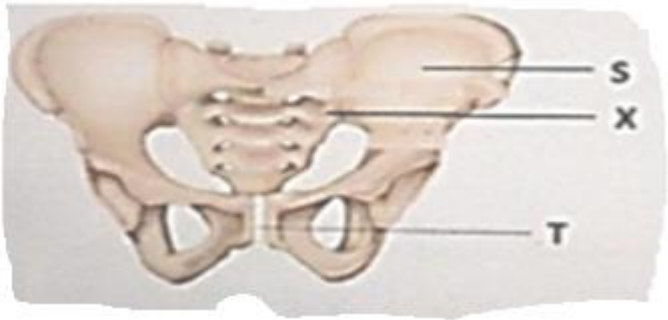
W



Y



Z



(a) Name the region from which bones W and Y were obtained. **(1mk)**

……

(b) Identify the bones **3mks)**

W……

Y……

Z .....

(c) State three characteristics features of the bone labelled W. **(3mks)**

……

……

……

(d) Which structures fit in the opening labelled P in the photographs of specimen W. **(2mks)**

……

……

(e) Name the parts S and T on photograph Z. **(2mks)**

S……

T……

f) On the photographs label orbutrator **foramen** **(1mk)**

KCSE 2024 JOINT MOCK EXAM

SERIES 1

233/1

CHEMISTRY

PAPER 1 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO THE CANDIDATES:-

- Write your **name** and **Admission number** in the spaces provided.
- Answer ***all*** the questions in the spaces provided.
- Mathematical tables and electronic calculators may be used
- All working **MUST** be clearly shown where necessary.

FOR EXAMINER'S USE ONLY:

Question	Maximum score	Candidate's score
1-25	80 MARKS	

1 **[a]**State Boyle's law **[1mk]**

……

……

[b]At 400^0C, 850cm^3 of a gas exert a pressure of 560mmHg. What volume of the same gas would exert a pressure of 640mmHg at the same temperature? **[3mks]**

……

……

……

……

2. When burning magnesium is lowered into a gas jar containing nitrogen (I) oxide, it continues to burn forming a white solid

[a]Name the white solid **1mk]**

……

[b]Write a chemical equation of the reaction that **occurred** **[1mk]**

……

……

3. Carbon {IV} oxide is one of the gases used in fire extinguishers

[a] State any other possible use of carbon {IV} **oxide** **[1mk]**

……

[b]Name any two reagents that can be reacted together to generate carbon {IV} oxide **[2mks]**

……

……

……

4. Rusting is a process that causes massive destruction of iron structures

[a]State one condition that accelerates rusting **[1mk]**

……

[b]State one advantage of **rusting** **[1mk]**

……

……

5. At 60^0C, 38 grams of lead{II} nitrate saturate 56cm^3 of water. Determine the solubility of lead {II} nitrate at this temperature **[2mks]**

……

……

……

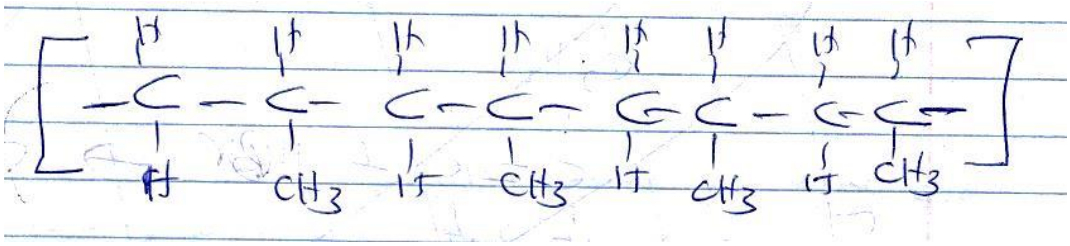
6. Explain why molten sodium chloride conducts electricity, but solid sodium chloride does not **[2mks]**

……

……

……

7. A polymer can be represented as



[a]Name and draw the structure of the monomer **[2mks]**

……

……

……

……

……

[b]What type of polymerization occurs in the above case? **[1mk]**

……

[c]Given that the molecular mass of the polymer is 25620, how many units of the monomer make the polymer **[2mks]**

……

……

……

8. A reaction can be represented as;

$C_2H_{4[g]} + HBr_{[g]} \longrightarrow C_2H_5Br_{[g]}$

Given the bond energies of C-H, C=C, C-C, C-Br, and H –Br as 20kJ/mol, 580Kj/mole, 446Kj/mole, 438KJ/mole and 396kJ/mole respectively. Determine the heat of formation of C_2H_5Br **[3mks]**

……

……

……

……

……

9 [a]Define the term, dynamic **equilibrium** **[1mks]**

……

……

[b]A reaction at equilibrium can be represented as

$2CrO^{2-}_{4[aq]} + 2H^{+}[aq] \rightleftharpoons Cr_2O7\ ^{2}_{[aq]} + H_2O_{\{l\}}$

Yellow **orange**

State and explain the observation made when;

[i] NaOH is added to the equilibrium **mixture** **[2mks]**

……

……

……

[ii] HCl is added to the equilibrium **mixture** **[2mks]**

……

……

……

10. During the electrolysis of dilute copper {II} chloride using carbon electrodes, a current of 1.5A was passed through the solution for 2 hours and 30 minutes

[**a]** Write the ionic equation of the reaction that occurred at the **cathode** **[1mk]**

……

……

[b] Given R.A.M of copper = 64 and 1F = 96500C, calculate the change in mass of the cathode **[3mks]**

……

……

……

……

……

11. [a] Define the term half-**life** **[1mk]**

……

……

[b]Name two particles likely to be emitted when a radioactive nuclide undergoes radioactivity **[2mks]**

……

……

[c]The half-life of a radioactive nuclide is 3 hours. Given that its initial mass is 288g, determine the remaining mass after 12 hours. **[2mks]**

……

……

……

……

12. The reduction potentials of elements M and N are;

$M^{2+}_{[aq]} + 2e^- \rightleftharpoons M_{[s]}, E^\theta = +0.44V$

$N^{+}_{[aq]}\ e^- \rightleftharpoons N_{[s]}, E^\theta = -1.64V$

Using the above reduction potentials, predict whether a reaction would occur between $N^{+}_{[aq]}$ and $M_{[[s]}$ **[3mks]**

.....

.....

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.....

.....

13. An hydrocarbon can be represented as: $C_2\ H_2$

[a] Name the hydrocarbon **[1mk]**

.....

[b] State two reagents that can be reacted together to generate the hydrocarbon **[2mks]**

.....

[c] Identify the group of hydrocarbons into which C_2H_2 belongs to **[1mk]**

.....

14. [a] Define allotropy and give an element with allotropes apart from sulphur **[2mks]**

.....

.....

.....

[b]In an experiment to investigate a certain property of sulphur, Maina added few drops of conc HNO_3 to sulphur in a test tube and warmed the mixture

[i]State one observation made **[1mk]**

.....

[ii]Write a chemical equation of the reaction that occurred **[1mk]**

……

……

15. Chlorine is commonly used in the manufacture of $Ca(OCl)_2$

[i] State one use of the above compound of chlorine **[1mk]**

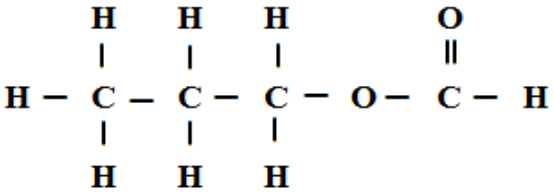
……

[ii] Write a chemical equation leading to the production of $Ca(OCl)_2$ **[1mk]**

……

……

16. A compound can be represented as



[a] What name is given to the above class of **compounds** **[1mk]**

……

[b] Name two reagents that can be reacted together to generate the above compound **[2mks]**

……

……

……

[c] State two conditions necessary for the reaction leading to formation of the above compound to occur **[2mks]**

……

……

……

17. Using dots and crosses, show bonding in carbon {II} oxide **[2mks]**

18. When 20g of a compound containing carbon, hydrogen and oxygen was burnt in the air, 29.3g of carbon{IV} oxide and 11.7g of water were produced. Determine its empirical formulae.
{C=12, H=1 , O=16} **[3mks]**

……

……

……

……

……

19. Few drops of hydrochloric acid were added into a test tube containing lead {II} Nitrate solution

{a} State one observation **made** **[1mk]**

……

{b} Write an ionic equation of the reaction that occurred in the test tube **[1mk]**

……

20. In the industrial manufacture of Ammonia one of the raw materials is nitrogen gas

{a} Name one other raw material **[1mk]**

……

{b} Name two possible sources of the raw material you have named in {a} above **[2mks]**

……

……

{c} Name two substances that can be used as catalyst in this process **[2mks]**

……

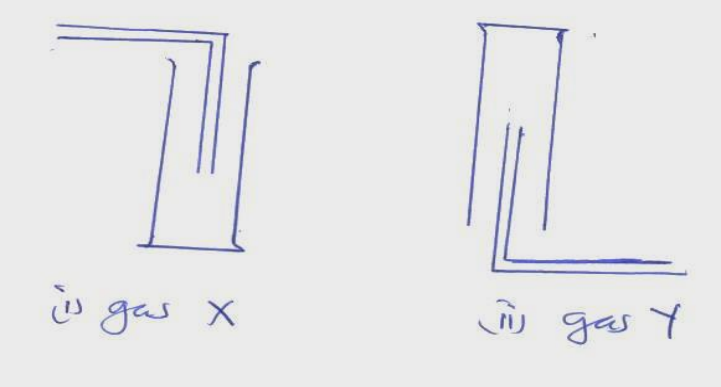
……

{d} State one use of ammonia **[1mk]**

……

……

21. Gas X and Y can be collected as shown below



[a] Name the method used to collect gas Y **[1mk]**

……

[b] How do densities of gas X and gas Y compare? **[1mk]**

……

……

[c] Give an example of a gas that can be collected using the same method as gas Y **[1mk]**

……

22. Element W has two isotopes W – 36 and W-40 which occur in the ratio x:4. Given that R.A.M of W is 37.25, find the value of x **[2mks]**

……

……

……

……

23. Describe an experiment that can be used to determine whether a given sample of a liquid is pure **[2mks]**

……

……

……

……

24. A given mass of gas T diffuses through a porous plug in 48 seconds while a similar mass of gas R diffuse in 70 seconds. Given that the density of gas T is 0.6g/cm3, find the density of gas R **[2mks]**

……

……

……

……

25. The electron configuration of elements A, B, C, D and E are as given below

Element	Electron configuration
A	2, 8, 1
B	2, 8
C	2, 7
D	2, 8, 6
E	2, 8, 3

{a} Which element has the highest electrical conductivity **[1mk]**

……

{b} Which letter represents the most reactive metal **[1mk]**

……

{c} Which letter represents the most reactive non-metal **[1mk]**

……

****

KCSE 2024 JOINT MOCK EXAM

SERIES 1

233/2

CHEMISTRY

PAPER 2 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS:

a) *Write your name and index number and class in the spaces provided.*

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

c) *All working MUST be clearly shown where necessary.*

d) *Mathematical tables and electronic calculators may be used.*

FOR EXAMINER'S USE ONLY

QUESTION	MAXIMUM SCORE	SCORE
1	11	
2	9	
3	13	
4	13	
5	10	
6	13	
7	11	
Total score	**80**	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

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

				N		S		
K	Q		O			P	F	M
	R							

a) What name is given to the group of elements to which Q and R belong? **(1 mark)**

……

b) Write the formula of the compound formed when Q and P combine. **(1 mark)**

……

c) Name the type of bond formed in (b) above. **(1 mark)**

……

d) How does the atomic radii of O and P compare? Give a reason. **(2 mrks)**

……

……

……

e) Draw a dot (**.**) and cross (x) diagram for the compound formed between N and F. **(1 mark)**

f) Explain how you would obtain a pure sample of the carbonate of K from its mixture with Lead carbonate powder. **(2 marks)**

……

……

……

g) Give one use of element M. **(1 mark)**

……

h) The melting point of M is -189^{o}C lower than that of F -102^{o}C. Explain this difference in their melting points. **(2 marks)**

……

……

……

2. The list below shows the formulae of some organic compounds. Use letters T1 to T6 to answer the questions that follow.

T_1 – $CH_3CH_2CH_2CH_2CH_3$

T_2 – $CH_3CH_2CH_2COOC_2H_5$

T_3 – $CH_3CH_2CH_2CH_2OH$

T_4 – $CH_3CH_2CH_2COOH$

$_{T5}$ – $CH_3CH_2CHCH_2$

T_6 – CH_3CCCH_3

(a) i) Select two compounds which are not hydrocarbons **(1mk)**

……

(ii)Would decolorize both bromine water and acidified potassium manganite (VII) **(1mk)**

……

(iii)Would produce hydrogen gas when reacted with potassium metal **(1mk)**

……

(b) Select a compound which would produce bubbles of a gas when reacted with sodium carbonate. **(1mk)**

……

c) (i) Identify the compound that is likely to undergo additional polymerization.

Give a reason for your answer. Using two molecules show how polymerization occurs.

I. Compound **(1mk)**

……

II. Reasons **(1mk)**

……

……

III. Polymerization **(1mk)**

……

……

(ii) Name the process by which compound T_2 is formed and identify the compounds that were used to form it.

I. Process **(1mk)**

II. Compounds **(1mk)**

(i)

(ii)

3. a) What is meant by the term molar enthalpy of combustion? **(1mks)**

……

……

b) The enthalpies of combustion of carbon, hydrogen and ethanol are given below.

$C_{(s)} + O_{2\,(g)} \longrightarrow CO_{2\,(g)}\ \Delta H = -393 kJmol^{-1}$

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

Enthalpy of combustion of ethanol $\Delta H = -1369 kJ/\ mol$

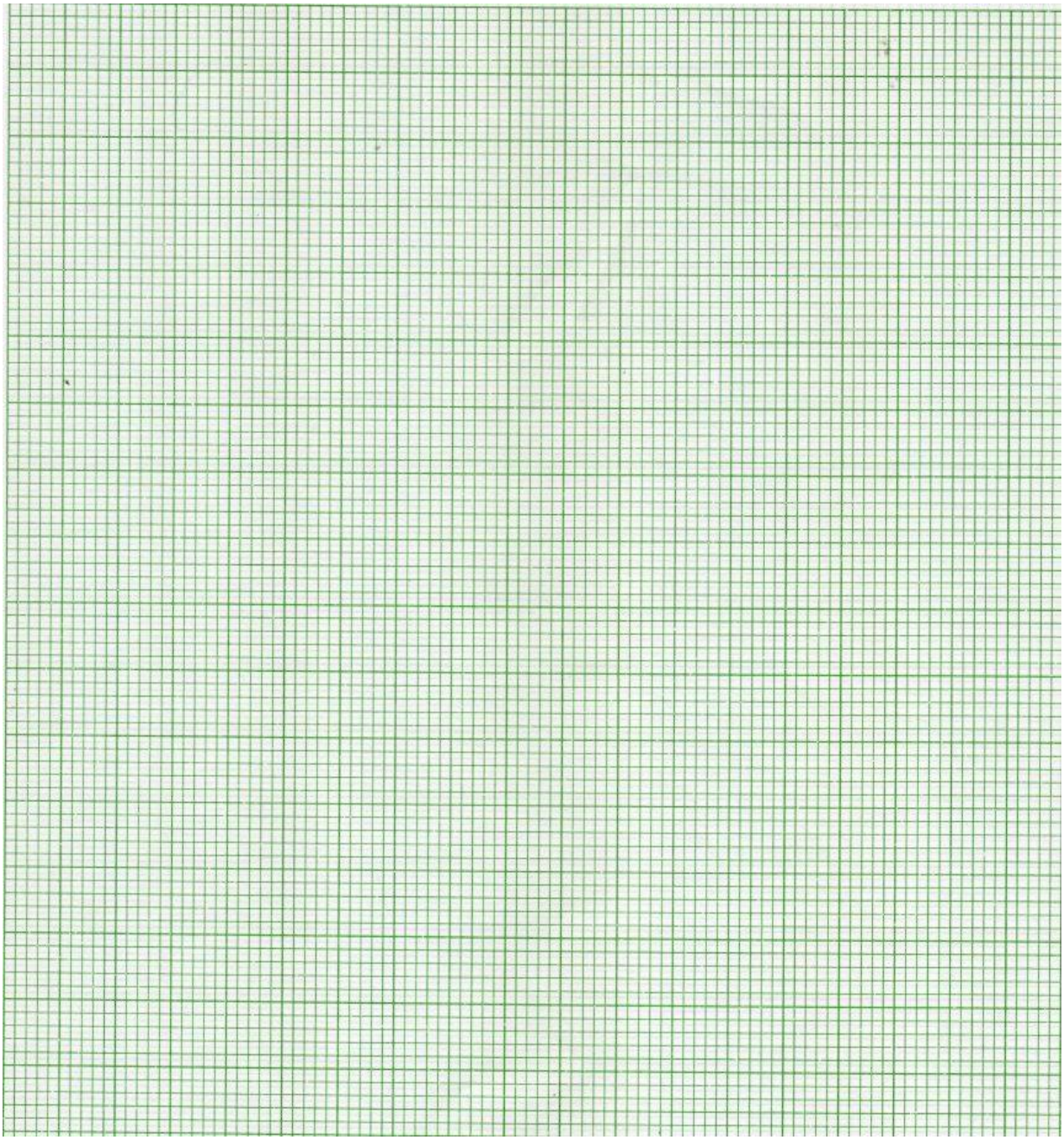
i) Draw an energy cycle diagram that links the enthalpy of formation of ethanol to enthalpies of combustion of Carbon, hydrogen and ethanol **(2 marks)**

ii) Determine the enthalpy of formation of ethanol **(2 marks)**

c) An experiment was carried out where different volumes of dilute nitric (v) acid and Aqueous potassium hydroxide both at 25^{o}C were mixed and stirred with a thermometer. The highest temperature reached by each mixture was recorded in the table below.

Volume of nitric (V) acid (cm^3)	4	8	12	16	20	24	28	32	36
Volume of potassium hydroxide cm^3	36	32	28	24	20	16	12	8	4
Highest temperature of mixture	19.8	22.2	24.6	27.0	27.0	25.0	23.0	21.0	19.0

i) Plot a graph of highest temperature (vertical axis) against volume of nitric(v) acid. (horizontal axis) **3mks**



ii) Using your graph, determine the;

a) Highest temperature reached **(1 marks)**

b) The volume of the acid that reacted when the highest temperature is reached. **(1marks)**

c) The amount of heat liberated during the neutralization process

(Specific heat capacity is $4.2Jg^{-1}K^{-1}$ and the density of solution is $1.0gcm^{-3}$ **(2 marks)**

d) The molar enthalpies of neutralization for dilute hydrochloric acid and dilute nitric (v) acid are -55 $kJmol^{-1}$ while that of ethanoic acid is -52.2kJ/mol. Explain this observation. **(1mks)**

4 (a) The standard electrode potentials for the elements chloride and magnesium are:

$Cl_{2\,(aq)} + 2e^- \rightarrow 2Cl^-_{(aq)}$ $E^\theta = +1.36V$

$Mg^{2+}_{\,(aq)} + 2e^- \rightarrow Mg_{(s)}$ $E^\theta = -2.36V$

i) Which one for the two elements will act as an oxidizing agent? Explain your choice.**(2 marks)**

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

$Cl_{2(aq)} + Mg_{(s)} \rightarrow MgCl_{2(aq)}$ **(1mark)**

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

Metal	E^{θ} (volts)
P	+1.50
Q	+0.44
R	+0.34
S	–0.76

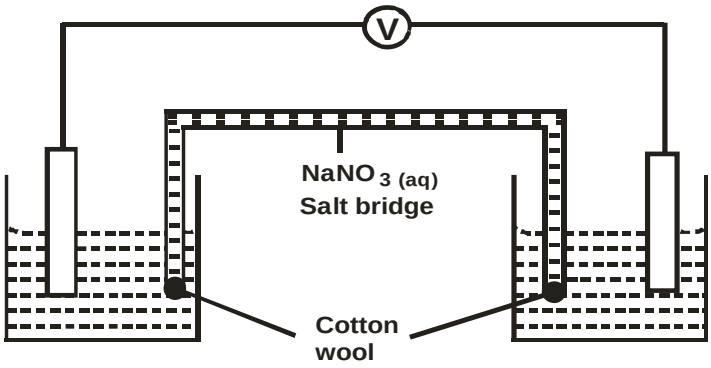
i) Which one of the metals cannot be displaced from a solution of its ions by any other metals in the table? Explain. **(2 marks)**

……

……

……

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



I) On the diagram label the metals P and Q , the flow of electrons and indicate the ions in solution **(2 marks)**

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

a) Electrode P **(1 mark)**

b) Electrode Q **(1 mark)**

III) State **two** functions of the salt bridge. **(2 marks)**

……

……

IV) What must be observed about the choice of a salt bridge? **(1 mark)**

……

……

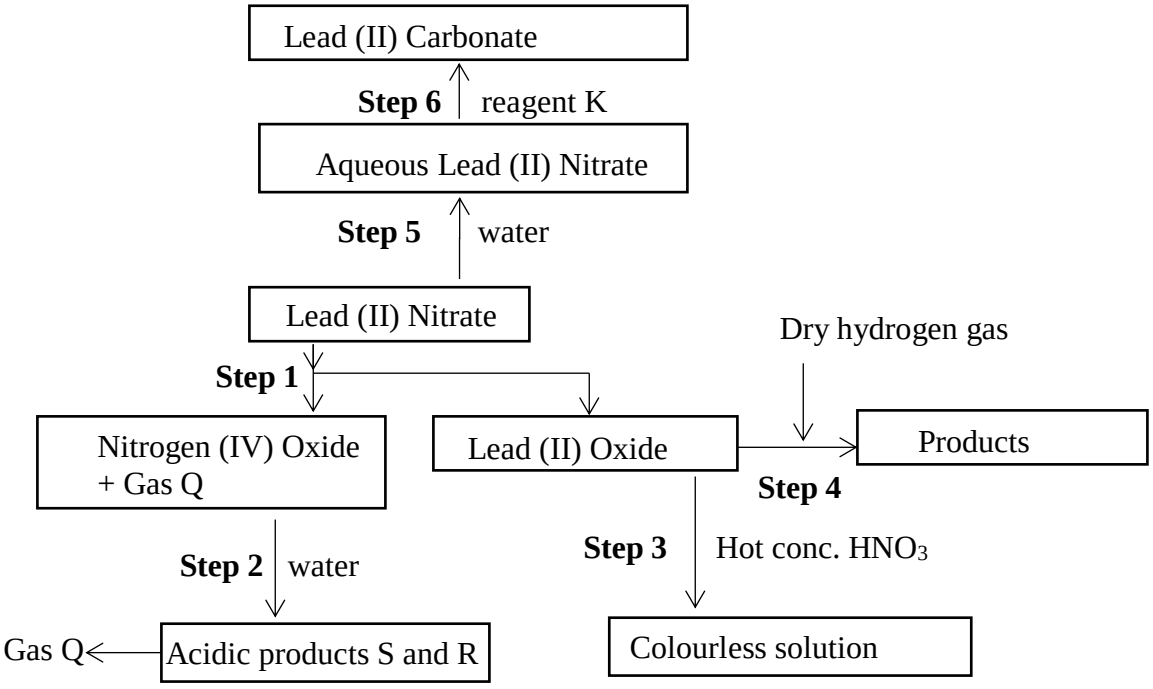
iii) A metallic couple of the metal S and Z produced a voltage of +1.71volts.

(Assume that S has the higher negative electrode potential)

I. Calculate the standard electrode potential for metal Z. **(1 mark)**

II. Arrange the metals P, Q, R and Z in their decreasing order of reactivity. **(1 mark)**

5. The flow chart below shows some reactions starting with lead (II) nitrate. Study it and answer the questions that follow.



(a) i) State the conditions necessary in Step 4 **(1mk)**

……

……

ii) Identify

I) Reagent K **($^1/_2$mk)**

II) Gas Q **($^1/_2$mk)**

III) Acidic products S and R. **(1mk)**

iii) Write

I) The ionic equation for the reaction in step 6. **(1mk)**

II) The equation for the reaction in Step 4. **(1mk)**

b) The use of materials made by Lead in roofing and water pipes is being discouraged. State

i) Two reasons why these materials have been used in the past**.** **(2mks)**

ii) One reason why their use is discouraged. **(1mk)**

c) The reaction between Lead (II) Nitrate and sulphuric (vi) acid starts and stops immediately.

Explain **(2mks)**

……

……

……

6.(a) A student was supplied with a colourless liquid suspected to be water.

(i) Describe one chemical test that could have been used to show that the liquid was water **(2mk)**

……

……

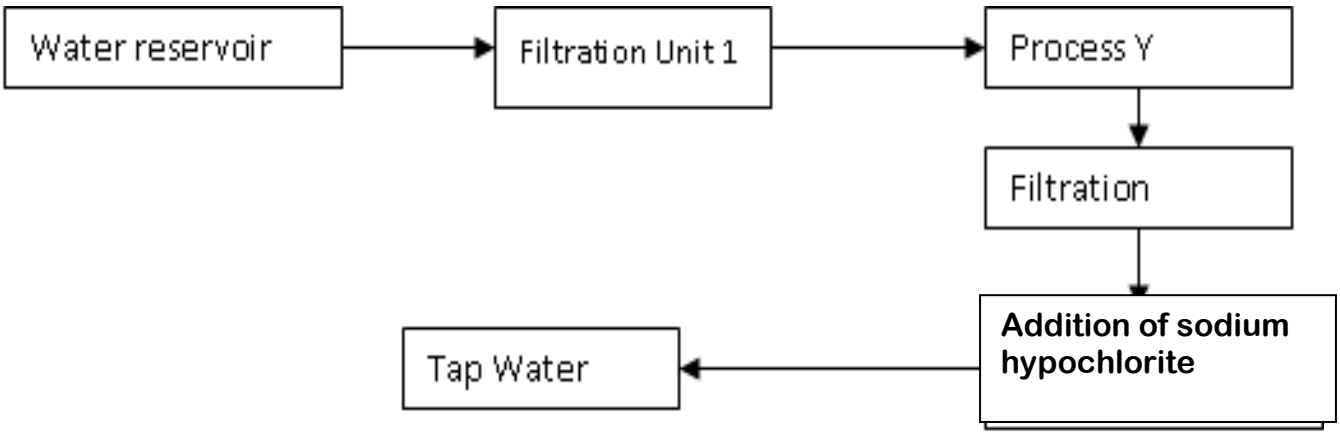
……

ii) How could it have been shown that the liquid was pure water? **(1mk)**

……

……

(b) The flow chart below shows the various stages of water treatment. Study it and answer the questions that follow



(i) Which substances are likely to be removed in filtration unit I? **(1mk)**

……

……

(ii) What is the purpose of process Y **(1mk)**

……

iii) What is the purpose of the addition of sodium hypochlorite **(1mk)**

……

……

(c) It was confirmed that magnesium sulphate was present in the tap water

(i) What type of hardness was present in the water? **(1mk**

……

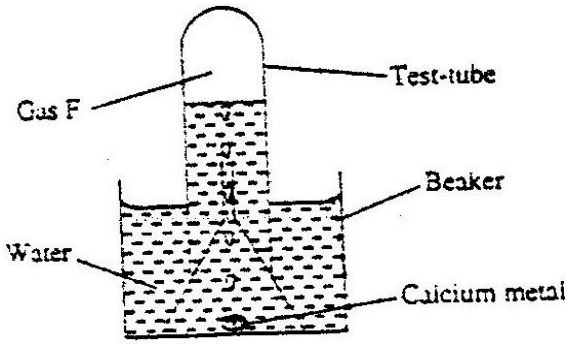
(ii) Explain one method that can be used to remove the water hardness. **(2mks)**

……

……

……

d. The set-up below was used to collect gas F, produced by the reaction between water and calcium metal.



(i) Name gas F **(1mk)**

……

(ii) At the end of the experiment, the solution in the beaker was found to be a weak base. Explain why the solution is a weak base. **(2 marks)**

……

……

……

(iii) Give one laboratory use of the solution formed in a beaker. **(1 mark)**

……

……

7 (a) (i) Name the allotropes of sulphur **(1mk)**

……

……

(ii) Sulphur is mined using the Frasch process which uses super-heated water at 170^0c and hot compressed air.

I) Explain how water at 170^0c is obtained. **(1mk)**

II) State one role of the super-heated water **(1mk)**

(iii) State and explain what happens when wet petals of red flowers are put in a gas jar full of sulphur (iv) oxide **(2mark**

……

……

……

iv) Write an equation for the reaction of sulphur (IV) oxide and concentrated Nitric (V) acid.

(1mark)

(v) I) Name the catalyst used in contact process **(1mark)**

(II) An equilibrium exists as

$2SO_{2(g)} + O_{2(g)} \rightleftharpoons 2SO_{3(g)}$

State and explain what happens if

a) More oxygen is added to the system **(2 marks)**

b) Pressure is decreased **(2 marks)**

KCSE 2024 JOINT MOCK EXAM

SERIES 1

233/3

CHEMISTRY

PAPER 3

TIME: 2¼ HOURS

SCHOOL…… **SIGN……**

(Kenya Certificate of Secondary Education)

CONFIDENTIAL

In addition to the apparatus and fittings found in the chemistry laboratory,each candidate should be provided with the following:

1.5g solid T accurately weighed
About 250cm^3 of solution B
About 150cm^3 of solution R
Distilled water
One burette
One pipette
One 100cm^3 measuring cylinder
One filter paper
One filter funnel
2 conical flasks (250 ml)
One Thermometer
Phenolphthalein indicator
Solid C(About 6CM long magnesium ribbon)
Solution D about 50 cm^3 of 2.0M Sulphuric (IV) acid
Stop watch
One 10cm^3 measuring cylinder
One 100cm^3 glass beaker
6 clean test tubes
One boiling tube
About 0.5g of solid G
About 0.5g of solid H

Bunsen burner
A glass rod
About 0.5g of $NaHCO_3$

ACCESS TO
2M Sodium hydroxide
2M Ammonium hydroxide
Aqueous Barium nitrate
2M Nitric acid
Acidified Potassium chromate (VI)
Acidified Potassium manganate (VII)
Bromine water

NOTE
Solid T = Benzoic acid

Solution R(0.01M H_2SO_4)
(i) Dissolve 56cm^3 of conc H_2SO_4 in about 500cm^3 of distilled water. Shake well and make up to 1 litre.
(ii) Take 10 cm^3 of the solution prepared in (i) above and dilute it with distilled water to make it up to 1 litre of solution R.

Solution B(0.02M NaOH)
(i) Dissolve 4.0g of NaOH in distilled water and make it up to 1 litre of solution.
(ii) Take 200 cm^3 of the solution prepared in (i) above and dilute it with distilled water to make it up to 1 litre of solution B.

Solid G= Sodium carbonate
Solid H= Oxalic acid
Solid C= Magnesium ribbon
Solution D= 2.0M Sulphuric (VI) acid

For Marking Schemes Contact 0746 222 000 / 0742 999 000

KCSE 2024 JOINT MOCK EXAM

SERIES 1

233/3

CHEMISTRY

PAPER 3

TIME: 2¼ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

1. *Write your name and index number in the spaces provided.*
2. *Sign and write the date of examination in the spaces provided.*
3. *Answer ALL the questions in the spaces provided in the question paper*
4. *You are NOT allowed to start working with the apparatus for the first 15 minutes of the 2 ¼ hours allowed for this paper. This time is to enable you to read the question paper and make sure you have all the chemicals and apparatus required.*
5. *ALL working MUST be clearly shown where necessary*
6. *Mathematical tables and electronic calculators may be used.*

FOR EXAMINERS USE ONLY

QUESTION	Max Score	Candidate Score
1	18 ½	
2	8½	
3	13	
TOTAL	40	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

1. You are provided with :

- A monobasic acid, Solid T.
- Sodium hydroxide, solution B.
- 0.01M solution R of a dibasic acid H_2A.

You are required to:

i. Prepare a saturated solution of solid T.

ii. Standardize sodium hydroxide solution B.

iii. Determine the solubility of solid T in water at room temperature.

PROCEDURE

a. Place all the solid T provided into a dry conical flask. Measure out 100cm^3 of distilled water using a measuring cylinder and add it to solid T. Shake thoroughly and leave it to stand. RETAIN IT FOR USE IN PROCEDURE (iii)

b. Fill the burette with solution B, pipette 25cm^3 of solution R into a conical flask. Add 2 or 3 drops of phenolphthalein indicator and titrate against solution B until a permanent pink colour appears. Record the readings in the table below, repeat to obtain three accurate readings.

TABLE 1 **4MKS**

	1	2	3
Final burette reading (cm3)			
Initial burette reading (cm3)			
Volume of solution B used (cm3)			

i. Calculate the average titre. **(1 mark)**

ii. a) Write the equation for the reaction of the dibasic acid and sodium hydroxide. **(1 mark)**

b) Calculate the concentration of sodium hydroxide, solution B in moles per litre. **(2 marks)**

iii. Measure the temperature of the solution of solid T. Using a dry filter paper and dry filter funnel, filter the solution into a dry conical flask. Pipette 25cm^3 of the filtrate into a conical flask. Add 2 or 3 drops of phenolphthalein indicator and titrate against sodium hydroxide, solution B until a permanent pink colour appears. Record the readings in the table below. Repeat to obtain three accurate readings. Temperature of the solution of solid T = _____ ℃. **(1 mark)**

TABLE 2

	1	2	3
Final burette reading (cm^3)			
Initial burette reading (cm^3)			
Volume of solution B used (cm^3)			

(4 marks)

iv. Calculate the average titre of solution B used. **(1 mark)**

v. calculate:

(I) The number of moles of acid T in 25cm^3 of the filtrate**.** **(2 marks)**

(II) The number of moles of acid T in 100cm^3 of solution T. **(1 mark)**

(III) Given that the molecular formula of acid T is $C_7H_6O_2$, calculate the solubility of the acid in grammes per 100cm3 of water. (C=12.0 , H=1.0 , O=16.0)

(1 ½ marks)

2. You are provided with:

- Magnesium ribbon labelled solid C.
- 2.0 M sulphuric (vi) acid labelled solution D.
- A stop watch.

You are required to determine the rate of reaction between magnesium and sulphuric (vi) acid at different concentrations.

PROCEDURE

Place 5 test tubes in a test tube rack and label them 1,2,3,4 and 5. Using a $10cm^3$ measuring cylinder, measure out the volume of 2.0 M sulphuric (vi) acid solution D as shown in the table below. Pour in the corresponding test tubes. To each test tube, add the volume of water as shown in the table below. Cut out five pieces of magnesium ribbon, solid C each exactly 1 cm long. Transfer all the solution in test tube 1 into a $100cm^3$ beaker. Place one piece of magnesium into the beaker and start a stop watch immediately. Swirl the beaker continuously ensuring that the magnesium is always inside the solution. Record the time taken for magnesium to disappear in table 3 below. Wash the beaker and repeat the procedure above for each of the solution in test tube 2, 3, 4 and 5 and complete table 3.

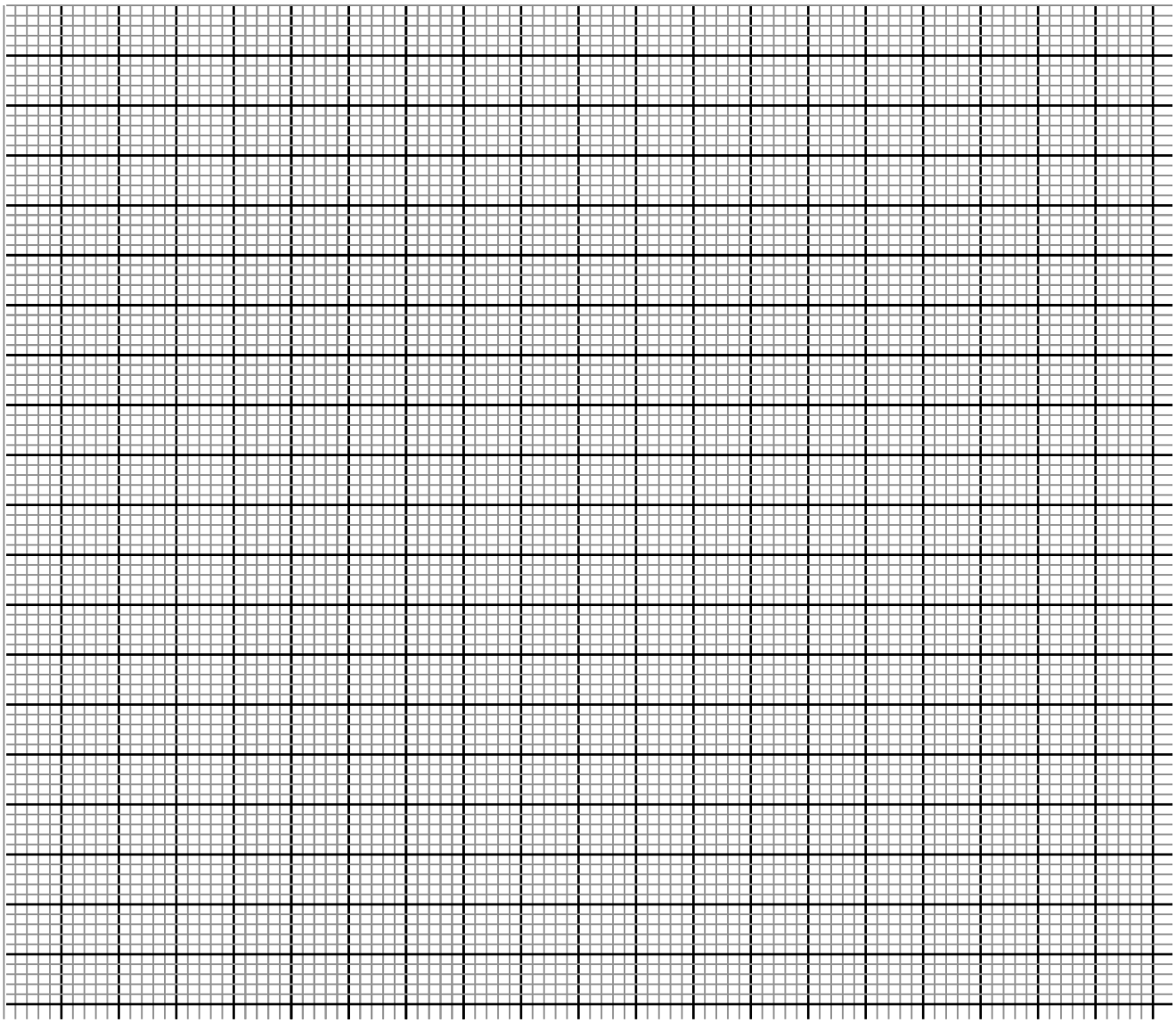
TABLE 3 **(3 ½ MKS)**

TEST TUBE NUMBER	**1**	**2**	**3**	**4**	**5**
Volume of solution D (cm^3)	10	9	8	7	6
Volume of water (cm^3)	0	1	2	3	4
Time taken (sec)					
Rate of reaction ($^1/_{time}$) S^{-1}					

a. Plot a graph of rate of reaction of ($\frac{1}{t}$) (y-axis) against volume of solution D.

(3 marks)

b. Use the graph to determine the time that would be taken for a 1 cm length magnesium ribbon to disappear if the volume of the acid solution D used was 8.5 cm^3. **(1 mark)**



c. In terms of rates of reactions. Explain the shape of your graph. **(1 mark)**

3. a. Place a spatula end full of solid G in a boiling tube and add 100cm^3 of distilled water while shaking. Divide the solution into four portions.

Observation	**Inference**
(1mk)	(½ mk)

I. to the first portion, add sodium hydroxide dropwise till in excess.

Observation	**Inference**
(½ mk)	**(1 mk)**

II. To the second portion, immerse a glass rod into the solution and place the wet rod into a non-luminous flame of a Bunsen burner.

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

III. To the third portion, add a few drops of barium nitrate solution followed by dilute nitric acid.

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

b. You are provided with solid H which is to be dissolved in about $6cm^3$ of distilled water. Divide the resulting solution into 5 portions carry out the tests described and note down your observations and inferences.

I. To the 1st portion add 2-3 drops of acidified potassium dichromate (vi).

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

II. To the second portion add 2-3 drops of acidified potassium manganate (vii)

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

III. To the third portion add 2-3 drops of bromine water.

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

IV. Place a quarter spatula full of sodium hydrogen carbonate in a dry test tube. Add the 4th portion to the $NaHCO_3$ in the test tube.

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

KCSE 2024 JOINT MOCK EXAM

SERIES 1

232/1

PHYSICS

PAPER 1

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

- *Write your name and admission number in the spaces provided above.*
- *Sign and write the date of the examination in the spaces provided above.*
- *This paper consists of two sections **A** and **B**.*
- *Answer ALL the questions in section **A** and **B** in the spaces provided below each question.*
- *All working must be clearly shown.*
- *Non – programmable and silent calculators may be used.*

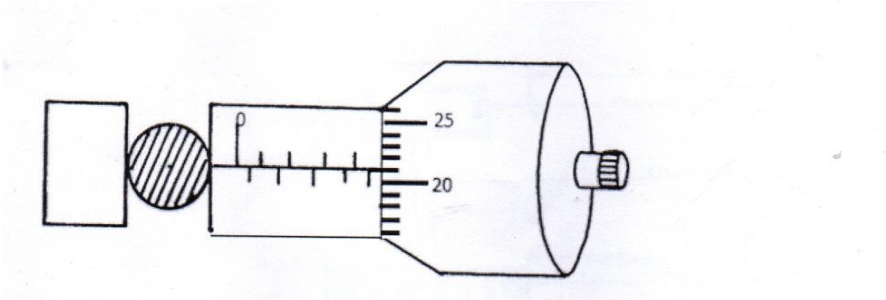
FOR EXAMINERS USE ONLY

SECTION	QUESTION	MAXIMUM MARKS	SCORE
A	1 - 11	25	
B	12	10	
	13	11	
	14	10	
	15	12	
	16	12	
TOTAL		**80**	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

SECTION A (25 MARKS)

1. A spherical ball bearing is held between the anvil and spindle of a micrometer screw gauge. The reading on the gauge when the jaws are closed without anything in between is 0.11 mm.



What is the diameter of the ball bearing? **(2 marks)**

2. a) Boiling water is not used for sterilization of clinical thermometer. State the reason for this.

(1 mark)

b) State how the clinical thermometer is sterilized**.** **(1 mark)**

3. Between mercury and alcohol, state with a reason, which of the two liquids is used in a thermometer to measure temperature in areas where temperatures are below - 40 ^{o}c. **(2 marks)**

4. State what happens to the position of C.O.G of a body in the following states of equilibrium if the body is slightly pushed.

a) Stable equilibrium. **(1mark)**

b) Unstable equilibrium. **(1mark)**

c) Neutral equilibrium. **(1mark)**

5. Using kinetic theory of matter, distinguish between solids and liquids states of matter in terms of intermolecular forces and spaces between particles**.** **(2 marks)**

6. In a vacuum flask, the walls enclosing the vacuum are silvered on the inside. State the reason for this**.** **(1 mark)**

7. The following data was obtained from an experiment to determine the size of palm oil molecule.

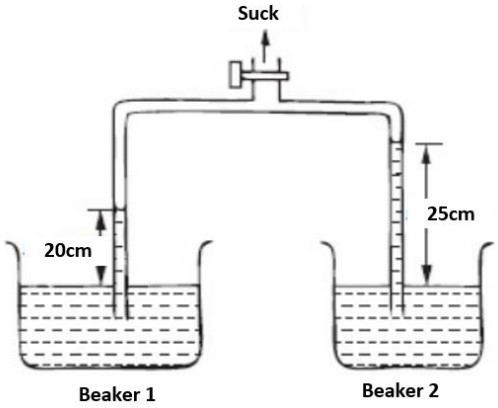
- Volume of 50 drops of palm oil = $1.5 \text{ X } 10^{-9}$ m^3
- Area of a patch from one drop of the oil. = 8.0 cm^2

Determine the size of a palm oil molecule. **(3 marks)**

8. Explain why it is dangerous for a bus to carry standing passengers. **(2 marks)**

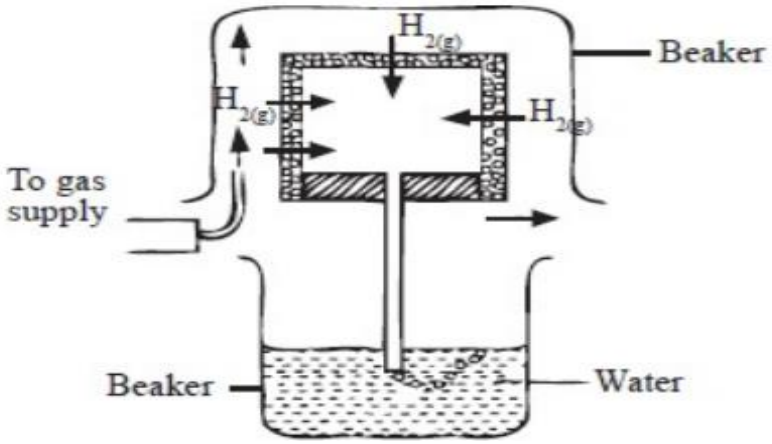
9. State two factors that affects the spring constant of a spring**.** **(2 marks)**

10. Two liquids were sucked up in two identical tubes as shown in the figure below



Given that the liquid in beaker 2 is water of density 1 g/cm^3 determine the density of liquid in beaker 1. **(3 marks)**

11. The figure below shows an arrangement to demonstrate diffusion through a porous pot.



The hydrogen gas is supplied for sometimes then stopped and the beaker removed. State and explain what is likely to be observed when the hydrogen gas supply is stopped. **(3 marks)**

SECTION B (55 MARKS)

12. a) State the law of conservation of linear momentum**.** **(1 mark)**

b) A high jumper usually lands on thick mattress. Explain how the mattress helps in reducing the force of impact**.** **(1 mark)**

c) A bus of mass 2500 kg travelling at a constant velocity of 15 m/s collides with a stationary car of car of mass 800 kg. The impact takes 0.5 seconds before the two move together at a constant velocity for 20 seconds.

Calculate;

i) The common velocity after the impact**.** **(3 marks)**

ii) The distance moved after the impact. **(2 marks)**

iii) The impulsive force. **(3 marks)**

13. a) A body moving at a constant speed in a circular path is said to be accelerating. Explain. **(1 mark)**

b) Define angular displacement. **(1 mark)**

b) A body of mass 450g tied to s a string of length 60 cm, is moved in a horizontal circle at a constant speed of 240 revolutions per minute.

Determine;

i) Angular velocity of the body**.** **(2 marks)**

ii) Tension in the string. **(2 marks)**

c) The above body in b) is released and falls to the ground 2.6 m below it.

Calculate;

i) The time it takes to reach the ground. **(2 marks)**

ii) Maximum horizontal distance it travels from the point of release. **(3 marks)**

14. a) State Archimedes principle. **(1 mark)**

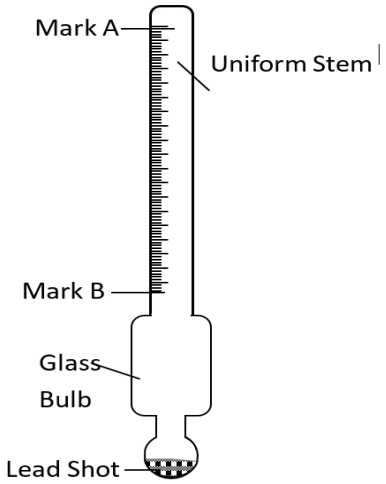
b) An object weighs 5.2 N in air, 3.2 N when completely immersed in water and 1.8 N when completely immersed in an acid.

Calculate;

i) Density of the object. **(3 marks)**

ii) Density of the acid. **(3 marks)**

c) The figure below shows a simple hydrometer which is suitable for measuring density of liquids varying between 0.8 g/cm^3 and 1.2g/cm^3.



i) State the purpose of the lead shots in the glass bulb. **(1 mark)**

ii) State how the hydrometer would be made more sensitive. **(1 mark)**

iii) Indicate on the diagram the mark corresponding to 0.8 g/cm^3 and 1.2 g/ cm^3. **1 mark)**

15. a) Define the term specific latent heat of fusion. **(1 mark)**

b) In an experiment to determine the specific latent heat of vaporization of water, steam at 100 ^{o}c was passed into water contained in a well lagged aluminium calorimeter. The following data measurements were made;

- mass of calorimeter = 100 g
- initial mass of water = 150 g
- initial temperature of water = 18 ^{o}c
- final mass of calorimeter + water + condensed steam = 264 g
- final temperature of the mixture = 68 ^{o}c

(Specific heat capacity of water = 4200J/kgK and specific heat capacity of aluminium = 400J/kgK)

i) Determine;

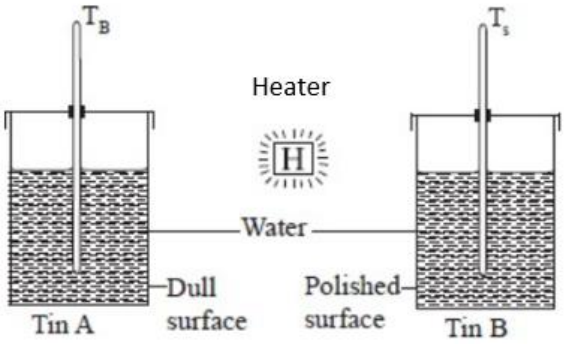
I) Mass of the condensed steam. **(1 mark)**

II) Heat gained by the calorimeter and water. **(3 marks)**

iii) Given that $\mathbf{L_V}$ is the specific latent heat of vaporization of steam, determine the value of $\mathbf{L_V}$.

(3 marks)

c) Two similar cans are partly filled with equal quantities of paraffin. Each holds a thermometer, is covered with a lid and stands on a wooden bench at the same distance from a source of radiant heat as shown below.



i) Explain why heat from the heater could not have reached the cans by;

I) Conduction. **(1 mark)**

II) Convection. **(1 mark)**

ii) Explain why there is a difference in the thermometer readings after some time. **(1 mark)**

iii) How can the set up in the figure above be adjusted in order to produce the same results? **(1 mark)**

16. a) Define velocity ratio of a machine. **(1 mark)**

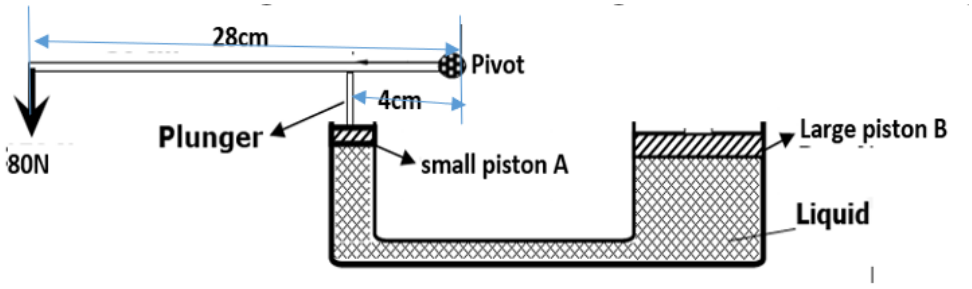
b) The effort piston of a hydraulic machine is of radius 2.8 cm, while that of the load piston is of radius 14 cm. the machine raises a load of 120 kg at a constant velocity. If the machine has an efficiency of 80%.

Calculate;

i) The velocity ratio of the hydraulic machine**.** **(2 marks)**

ii) The effort needed to raise the load**.** **(3 marks)**

c) The figure below shows a hydraulic press that is worked by applying a force of 80 N ta the end of a lever 28 cm long pivoted at the other end. The smaller piston is 4 cm from the pivot. The area of the piston A is 2 cm^2 and that of B is 10 cm^2.



Determine;

i) The force applied to piston A. **(2 marks)**

ii) The force exerted on the piston B by the liquid. **(2 marks)**

iii) The mechanical advantage of the hydraulic press. **(2 marks)**

KCSE 2024 JOINT MOCK EXAM

SERIES 1

232/2

PHYSICS

PAPER 2 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

INSTRUCTION TO CANDIDATES.

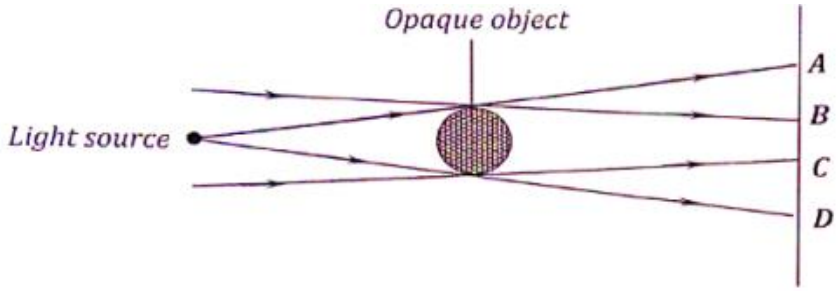
. Write your ***name*** and ***admission number*** in the spaces provided above
. This paper contain ***two sections***; Section I and Section II.
. Answer all the questions in section **I** and II. In the spaces provided
. Marks may be given for correct working even if the answer is wrong.
. Calculators and KNEC Mathematical tables may be used EXCEPT where stated otherwise.
. Show all the steps in your calculations, giving your answers at each stage in the spaces below each question.

FOR EXAMINER'S USE ONLY

SECTION	QUESTION	MAX MARKS	CANDIDATE'S SCORE
A	1-13	25	
B	14	07	
	15	11	
	16	12	
	17	11	
	18	07	
	19	09	
	TOTAL	80	

SECTION A 25 Marks

1. The figure1 below shows three point source of light with an opaque object placed between them and the screen



State and explain the nature of shadow formed a long B and C **(2marks)**

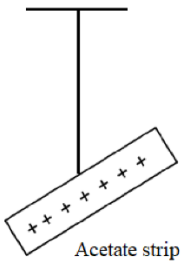
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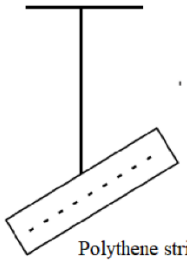
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2. The diagrams below show a positively charged acetate strip and a negatively charged polythene strip freely suspended and isolated.





Two rods X and Y are brought up in turn to these strips. X attracts the acetate strip but repels the polythene strip. Rod Y does not repel either the acetate or the polythene. State the type of charge on each rod.

X …… **(1 mark)**

Y …… **(1 mark)**

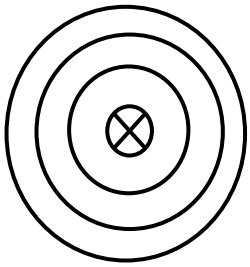
3. (a) State any one way of reducing the magnetic force of attraction of a **magnet** **(1mark)**

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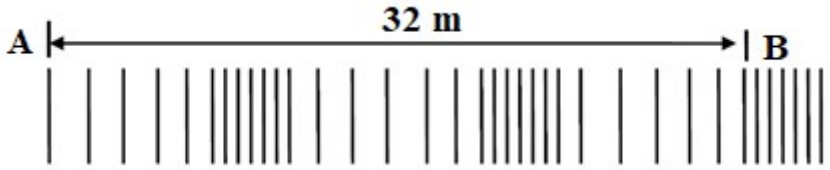
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(b) Show the direction of the magnetic field in the conductor carrying current shown below.

(1mark)



4. The diagram below shows waves generated from a tuning fork. If the wave takes 0.1 second to move from point A to B. determine the frequency of the wave. **(2marks)**



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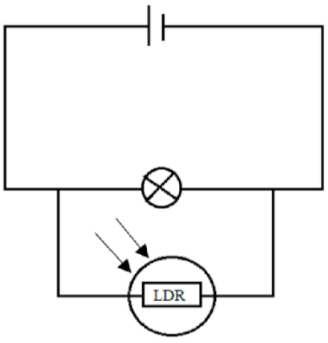
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5. Other than current state one other factor that affect the magnitude of force on a current carrying conductor placed in a magnetic field. **(1mark)**

……

6. A student connected the set up below in the laboratory. Explain the observation made on the bulb when the set-up below is taken to a dark room **(1 mark)**



……

……

7. A radioactive carbon – 14 decays to nitrogen by beta emissions as shown.

$$^{14}_{6}C \rightarrow {}^{X}_{7}N + {}^{0}_{Y}e$$

Determine the values of X and Y in the equation

X=…….. …….. (1mark)

Y = …… (1mark)

8. (a) state the reason for topping up a lead-acid accumulator with distilled water. **(1mark)**

……

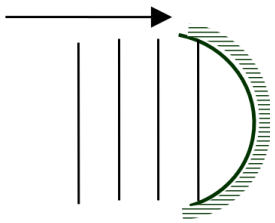
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(b) State one quatity that is used to determine whether accumulators require charging or not.

(1mark)

……

9. Figure 8 shows wave fronts of water waves approaching a concave surface.



(i) Complete the diagram to show the wave fronts formed after striking the surface. **(1 mark)**

(ii) What is the effect on velocity of the above if it moves from shallow to deep region **(1marks)**

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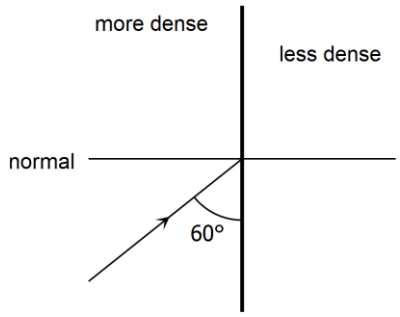
10. A person standing 110 m from the foot of a cliff claps his hands and hears a sound 0.75 seconds later. Find the speed of sound in air. **(2 marks)**

……

……

……

11. Figure 9 below shows light travelling from more optically dense to less optically dense medium.



a) On the same diagram, sketch a ray to show the direction of the refracted ray. **(1 mark)**

b) If the refractive index of the denser medium is 1.42, calculate the angle of refraction. **(2marks)**

……

……

……

……

12. Eleven (11) images are formed when two mirrors are inclined at an angle between them.

Determine the size of angle between the inclined mirrors **(2 marks)**

……

……

……

……

13. (a) The figure10 below is part of electromagnetic spectrum.

A		Visible light	UV	

Name one detector of A **(1 mark)**

……

(b) Define focal length of a curved reflecting surface **(1 mark)**

……

……

……

SECTION B 55 MARKS

14. a) (i) State any one condition necessary for two sources of waves to be coherent **(1 mark)**

……

……

(ii) A student walking on a straight perpendicular to two coherent signal generators hears alternating loud and soft sounds. Explain why at some point the sound heard is softer **(1mark)**

……

……

b) Explain why radio wave signals are easier to receive than TV waves signals in a place surrounded by hills. **(1mark)**

……

……

c) In an experiment using a ripple tank the frequency, f of the electric pulse generator was reduced to one third of its original value. How does the new wave length compare with the initial wavelength? **(1mark)**

……

……

d) In a double slit interference experiment, explain the effect on the appearance of the fringes of: (i) Reducing the separation of the slits but keeping the width of each slit constant. **(1mark)**

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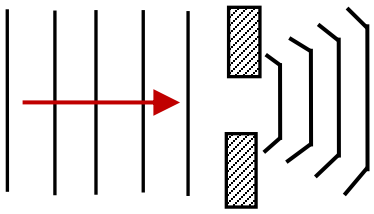
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(iii) Making each of the two slits wider but keeping the slit separation constant**. (1mark)**

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e) The figure 11 below shows wave fronts before and after passing through an opening.

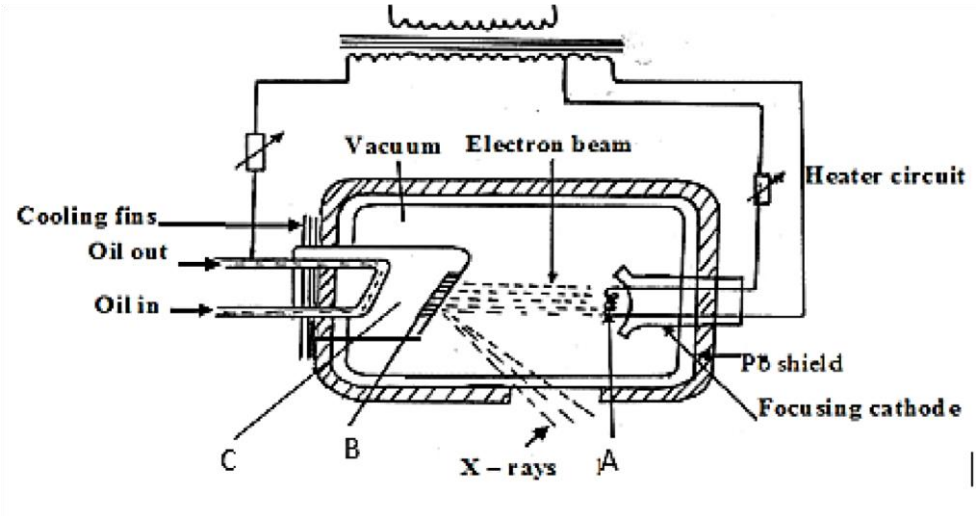


State what would be observed on the pattern after passing the opening if the wavelength of the wave is increased. **(1 mark)**

……

……

15. (a) The figure 12 below shows a X-ray tube.



(i) Name the part labelled C **(1 mark)**

……

(ii) State the property of the material labelled B on the diagram which makes it suitable for use in the X-ray tube. **(1 marks)**

……

(iii) Why is C inclined at an angle of 45^{o}? **(1 mark)**

……

……

(iv) State the adjustment that can be made to vary

I. The quality of X-rays **(1 mark)**

……

II. The quantity of the X-rays. **(1 mark)**

……

(v) An x-ray tube has an accelerating potential of 100KV. Determine the maximum frequency of the x-rays produced.*(Plank's constant = 6.63×10^{-34} Js, e = 1.6×10^{-19}C)* **(2 marks)**

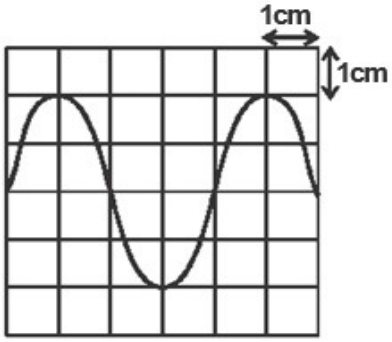
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(b) In a CRO, waveform given below was displayed on the screen when the sensitivity at the Y plate was10V/cm and time base set at 20 milliseconds/cm.



Determine:

(i) The peak voltage **(2marks)**

……

……

……

(i) The frequency of the signal **(2marks)**

……

……

……

16. (a) $^{226}_{88}Ra$ decays into $^{222}_{86}Rn$ by emission of an alpha particle. Write a nuclear equation for the decay **(1 mark)**

……

b) i)What do you understand by the term half-life of a radioactive substance? **(1 mark)**

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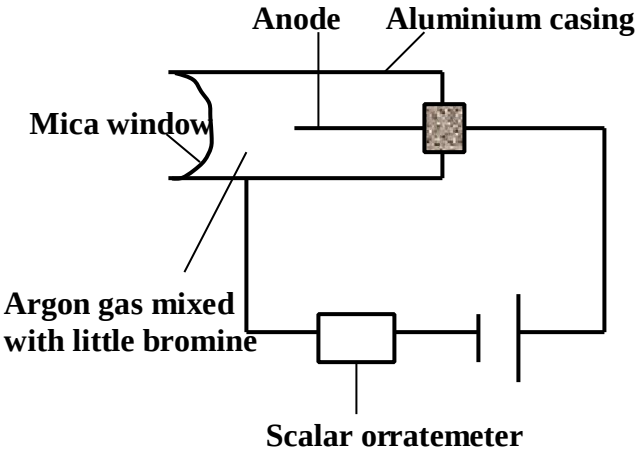
ii)A G.M tube registers 20 counts. When a radioactive source is brought close to it, it registers 3220 counts and 120 counts 30 hours later. What is the half-life of this substance? **(2 marks)**

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c) The figure 14 below shows a G.M tube.



i) Explain the purpose of the bromine **(1 mark)**

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(ii)Briefly explain how the Geiger Muller tube works to detect radiations. **(2 marks)**

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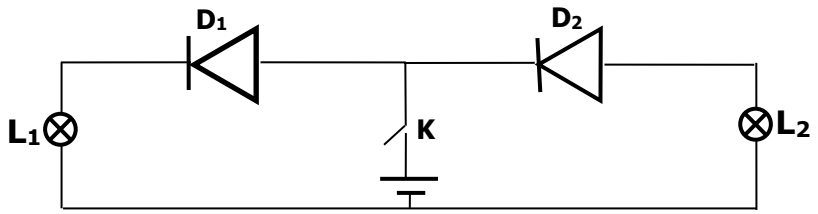
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(iii) When beta and alpha radiations are passed through a magnetic field, the beta radiations are deflected more than the alpha radiations. Give a reason for this observation**. (1 mark**)

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(d) The figure below is a circuit with two identical bulbs and components, Diodes 1 and 2.



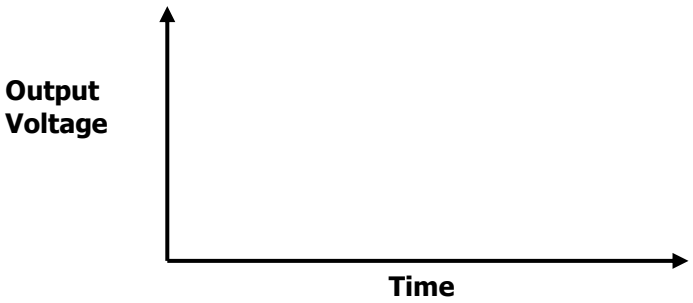
(i) State and explain the observation made when switch **K** is closed. **(2marks)**

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(ii) On the axes provided below, sketch the graph of output voltage against time for a full wave rectifier **(1mark)**



(iii) A capacitor is now connected across the output. Explain its effect on the output. **(1mark)**

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17. (a)You are provided with a rheostat, 2 cells, a voltmeter, an ammeter, a switch and a fixed resistor.

i) Draw a circuit diagram that can be used to verify Ohm's law. **(2 marks)**

ii) Describe how the above set up can be used to determine Ohms law. **(3marks)**

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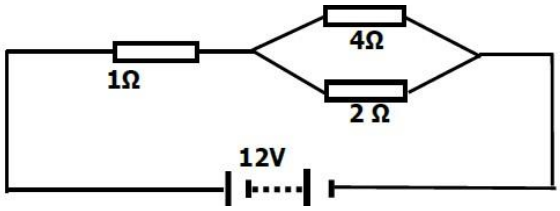
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(c) Study the circuit diagram below and answer the questions that follow.



Calculate the current through the 4Ω resistor **(3 marks)**

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(d) (i) An electrical emersion heater is rated as **240V, 500W**. What does this information mean?

(1mark)

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……

(ii) Calculate the resistance of the element used in the heater. **(2marks)**

……

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18. (a)A ray of light travelling from water to glass makes an angle of incident of 30^0. Find the angle of refraction in the glass. Refractive index of water = $\frac{4}{3}$. Refractive index of glass = $\frac{3}{2}$ **(2 marks)**

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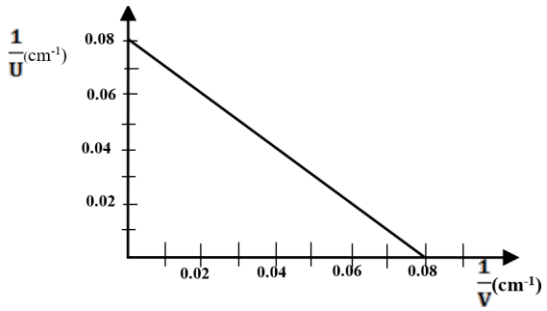
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(b) State one necessary and sufficient condition for total internal reflection to occur **(1mark)**

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c) The graph below shows the variation of **1/V** and **1/U** in an experiment to determine the focal length of the mirror. Determine the focal length. **(2marks)**

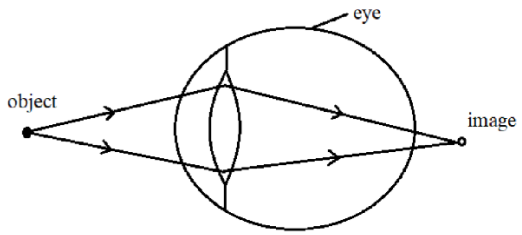


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d) The figure below shows a human eye defect.



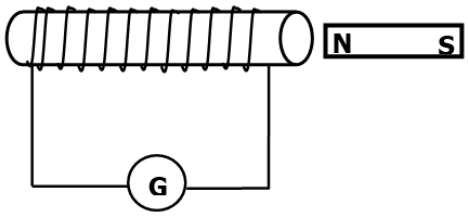
i) State one possible cause of this defect. **(1 mark)**

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ii) On the diagram, show how the defect is corrected. **(1 mark)**

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



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

(ii) State what is observed on the galvanometer if the south pole of the magnet was moved into and then withdrawn from the coil. **(1 mark)**

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(b) A transformer has 800 turns in the primary and 40 turns in the secondary winding. The alternating voltage connected to the primary is 240V and current of 0.5.A. If 10% of the power is dissipated as heat within the transformer, determine the current in the secondary coil. **(2 marks)**

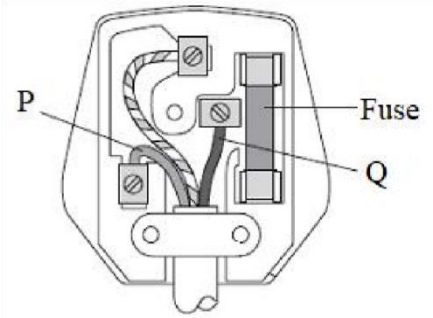
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(c) The diagram below shows a three-pin plug.



(i) Name the colour code of conductors Q **(1 mark)**

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(ii) Why is the earth pin longer than the rest in the three-pin plug shown above? **(1 mark)**

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(iii) Give one advantage of a circuit breaker instead of a fuse in domestic wiring. **(1mark)**

……

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(iv) State one modification can be done to the fuse wire to give it a higher rating? **(1mark)**

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KCSE 2024 JOINT MOCK EXAM

SERIES 1

232/3

PHYSICS

PAPER 3

TIME: 2½ HOURS

SCHOOL…… **SIGN……**

(Kenya Certificate of Secondary Education)

CONFIDENTIAL TO ALL SCHOOLS FOR PHYSICS TEACHERS

INSTRUCTIONS TO SCHOOLS

The information contained in this paper is to enable the head of the school and the teacher in charge of Physics to make adequate preparations for this year's physics practical mock examination. **NO ONE ELSE** should have access to this paper or acquire knowledge of its contents. Great care **must** be taken to ensure that the information herein does not reach the candidates either directly or indirectly. Physics teachers **SHOULD NOT** perform any of the experiments in the same room as the candidates or make the results of the experiments available to the candidates or give any other information related to the experiments. Doing so will constitute an examination irregularity which is punishable.

- The apparatus required by each candidate for the Physics practical examination are set out on page 2 of this paper. It is expected that ordinary apparatus of a Physics laboratory will be available
- The Physics teacher should note that it is his/her responsibility to ensure that each apparatus acquired for this examination agrees with the specification on page 2 of this paper
- Teachers are reminded that electronic calculators may be allowed in this examination room.
- The question paper will **not** be opened in advance

NB:- ANY USE OF APPARATUS OTHER THAN THE ONES SPECIFIED MAY LEAD TO CANDIDATES BEING PENALIZED

Each student will require the following :-

1. 2 new dry cells (size D)
2. 2 cell holders
3. A switch
4. An ammeter (0- 1A)
5. A voltmeter (0 – 5V)
6. 8 connecting wires; 4 with crocodile clips
7. A nichrome wire 1.0m long mounted on a scale labeled X (diameter 0.32 mm)
8. A micrometer screw gauge (can be shared)
9. A candle
10. A lens (f = 20 cm) and a lens holder
11. A screen
12. A metre rule
13. Rubber bung (hard). Height h= 2.8cm, wider diameter D= 2.5cm, narrower diameter d= 2.0 cm
14. Vernier calipers (shared).
15. Electronic beam balance (shared).(which records to 1 d.p.)
16. a retort stand, one boss, one clamp
17. One 500ml beaker ¾ full of water
18. One 100g mass
19. One 50g mass
20. 3 pieces of thread approximately 30cm long

For Marking Schemes Contact 0746 222 000 / 0742 999 000

KCSE 2024 JOINT MOCK EXAM

SERIES 1

232/3

PHYSICS

PAPER 3 (PRACTICAL)

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

INSTRUCTIONS TO CANDIDATES

(a) *Write your name and index number and school in the spaces provided above.*
(b) *Sign and write the date of examination in the spaces provided above.*
(c) *Answer ALL the questions in the spaces provided in the question paper.*
(d) *You are supposed to spend the first 15 minutes of the 2½ hours allowed for this paper reading the whole paper carefully before commencing your work.*
(e) *Marks are given for a clear record of the observations actually made, their suitability, accuracy and the use made of them.*
(f) *Candidates are advised to record their observations as soon as they are made.*
(g) *Non-programmable silent electronic calculators may be used.*

For Examiner's Use Only

Question 1

	d	c	f	g	h (i)	h (ii)	i (i)	i (ii)
Maximum Score	1	4	5	3	1	2	2	1
Candidate's Score								

Question 2

	b	c	d	e	f (i)	f (ii)	f (iii)	g	h	i	j
Maximum Score	1	3	4	3	1	1	2	1	1	3	1
Candidate's Score											

For Marking Schemes Contact 0746 222 000 / 0742 999 000

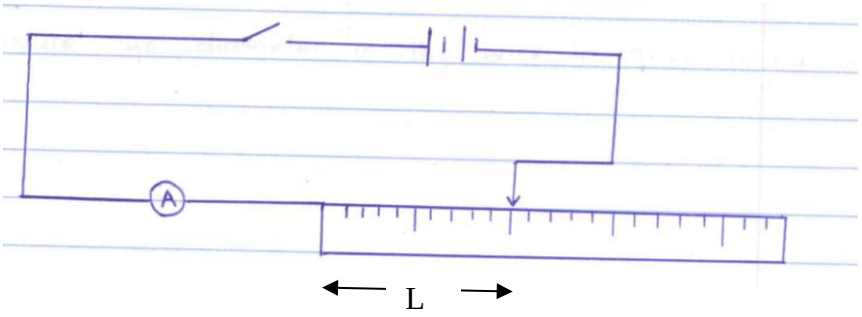
Question 1:

Each student will require the following

- 2 new dry cells
- 2 cell holders
- A switch
- An ammeter (0- 1A)
- A voltmeter (0 – 5V)
- 8 connecting wires
- A nichrome wire 1.0m long mounted on a scale labeled X
- A micrometer screw gauge (can be shared)

Proceed as follows

a) Connect the circuit as shown in the figure below



b) Measure the e.m.f, E (across the cells) before closing the switch

E= …….. **(1mark)**

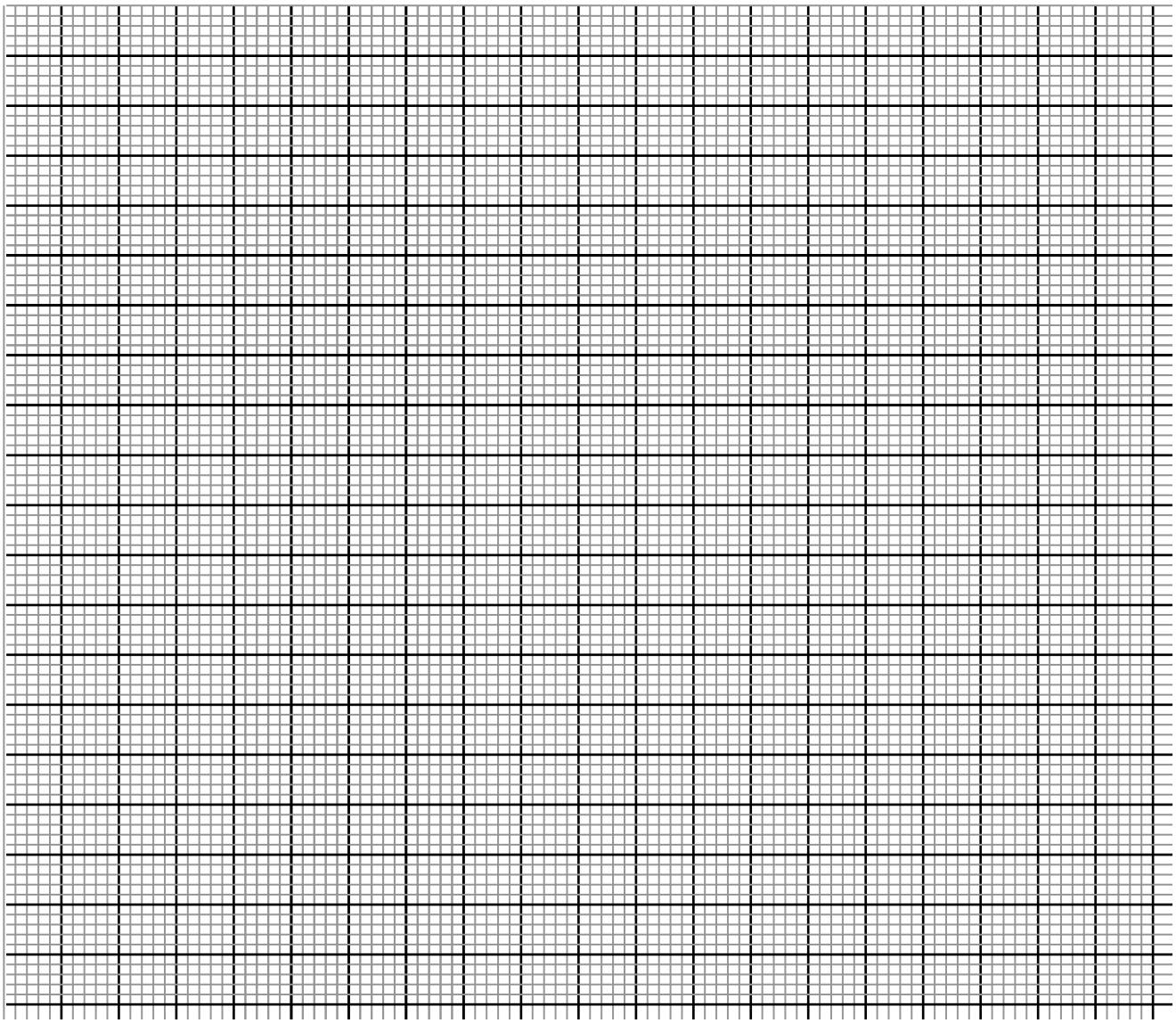
c) Adjust the length L of the wire 0.2 m, close the switch S and read the value of current and record the table below

Length L(m)	0.2	0.3	0.4	0.5	0.6	0.7
Current I (A)						
$\frac{1}{I}$ (A^{-1})						

d) Repeat the procedure in (c) above for the value of lengths given **(4 marks)**

e) Calculate the values of $\frac{1}{I}$ and record in table above

f) On the grid provided, plot a graph of $\frac{1}{I}$ (y axis) against L **(5marks)**



g) Determine the gradient of the graph **3 marks)**

h) i) Measure the diameter of the wire in three points used

d_1 =

d_2=

d_3 =

Average d= **(1mark)**

ii) Determine the cross section area, A, of the wire **(2marks)**

i) From the equation

$\frac{1}{I} = \frac{kL}{AE} + \frac{Q}{E}$ determine,

i) the value of k **(2 marks)**

ii) The value of Q **(1mark)**

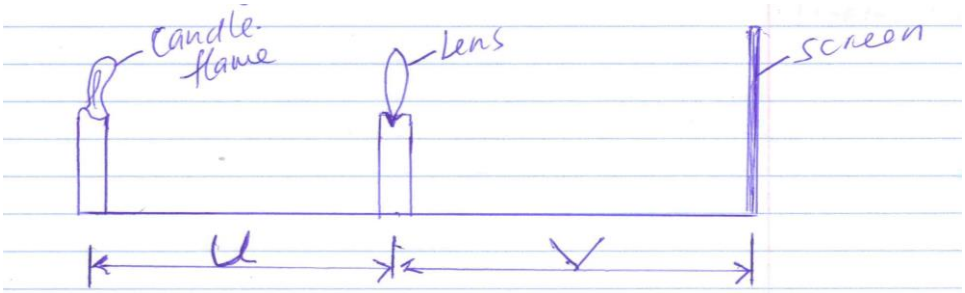
QUESTION 2.

PART A

You are provided with the following

- A candle
- A lens and a lens holder
- A screen
- A metre rule

a) Set up the apparatus as shown in figure below (ensure that the candle flame and the lens are approximately the same height above the bench)



b) Set the position of the lens so that the 40cm from the candle (U=40). Adjust the position of the screen until a sharp image of the candle flame is obtained. Measure the distance, V between the lens and the screen. Record the value of V_1

V_1 = …… cm **(1 mark)**

c) Repeat the procedures in (b) above for other values of U in the table b below. **(3 marks)**

Table b)

U(cm)	45	50	55
V(cm)			
Magnification (m) $\frac{v}{u}$			

d) Given that f = $\frac{v}{m+1,}$ where f is the focal length of the lens, use the results in table above to determine the average values of f. **(4 marks)**

PART B.

You are provided with the following:

- rubber bung.
- vernier calipers.
- beam balance.

Proceed as follows:

e) Using a vernier caliper, measure the lengths D, d, and h as shown in **figure 2.**

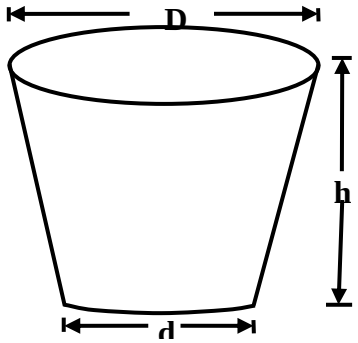


Figure 2

D = ... m **(1 mark)**

d = ... m **(1 mark)**

h = ... m **(1 mark)**

f) (i) Measure the mass, M of the rubber bung using the beam balance.

M = ... kg (**1 mark)**

(ii) Given that$Q = \frac{d+D}{4}$, determine the value of Q. **(1 mark)**

(iii) Determine the value of r given that $\pi r Q^2 = \frac{M}{d}$ **(2 marks)**

PART C

You are provided with the following

- a metre rule
- a retort stand, one boss, one clamp
- One 500ml beaker ¾ full of water
- One 100g mass
- One 50g mass
- 3 pieces of thread approximately 30cm long

Procedure

g) Balance the metre rule horizontally by suspending it from the stand and clamp with one of the threads.

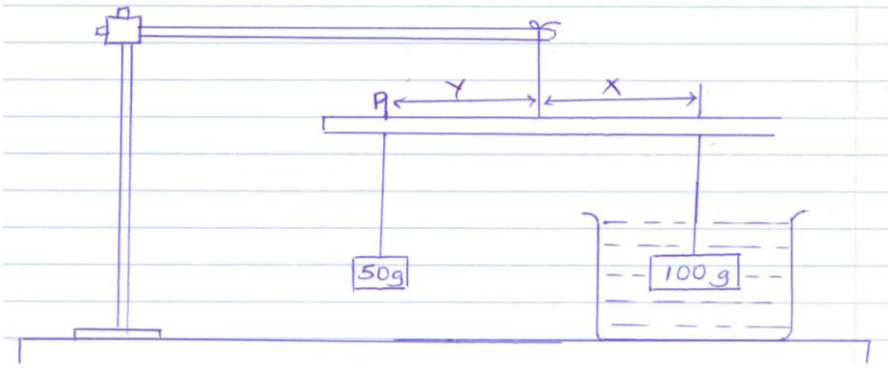
Record the balance point G

G = _____ cm (1 mark)

h) suspend the 100g mass from the metre rule at a point such that x = 5cm from point G, with the 100g mass completely immersed in water in the beaker hang the 50g mass from the metre rule.

Note the point of suspension (p) of the mass

P =_____ (1mark)



i) Calculate the apparent weight of the 100 g mass in water. **(3 marks)**

j) Find the upthrust of 100g mass in water. **(1 mark)**

KCSE 2024 JOINT MOCK EXAM

SERIES 1

121/1

MATHEMATICS

PAPER 1

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

1. Write your name, Adm. No. and class in the spaces provided at the top of this page.
2. The paper contains two sections: Section **I** and **II.**
3. Show all the steps in your calculations, giving your answers at each stage in the spaces below each question.
4. Marks may be given for correct working even if the answer is wrong.
5. Non-programmable silent electronic calculators and KNEC Mathematical tables may be used, except where stated otherwise.

Section I **FOR EXAMINER'S USE ONLY**

Question	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**TOTAL**
Marks																	

Section II

Question	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**TOTAL**
Marks									

Grand Total

For Marking Schemes Contact 0746 222 000 / 0742 999 000

SECTION 1 (ANSWER ALL QUESTIONS IN THIS SECTION)

1. The difference between two numbers is 4 and their product is 165. What is the sum of their reciprocals **(4 marks)**

2. Solve for x and y in the equation:

$4^x(27)^y = 72$ **(2 marks)**

3. Simplify completely**:** **(4 marks)**

$$\frac{1}{x-5} - \frac{x+6}{2x^2-9x-5}$$

4. Equal squares as large as possible are ruled off on a rectangular board 54cm by 78cm. find the number of those squares **(3 marks)**

5. A regular polygon has an interior angle of 150° and a side of length 10cm.

(a) find the number of sides the polygon has **(1 mark)**

(b) Find the area of the polygon **(3 marks)**

6. The line passing through the points P (5, b) and Q (2, 3) is perpendicular to the line $4y + 3x = 1$. Determine the value of b **(3 marks)**

7. Solve the simultaneous equations below by matrix method **(4 marks)**

$\text{Log}_2(2x + 5y) = 4$

$\text{Log}_{17}(3x + 4y) = 1$

8. The cost of a pair of shoes was Ksh. 800. A dealer raised the price by 10% and later reduced it by 20%. What is the current price of the pair of shoes **(2 marks)**

9. Given that $\sin\propto = \frac{\sqrt{5}}{3}$, where $\propto$ is an acute angle, find without using mathematical tables:

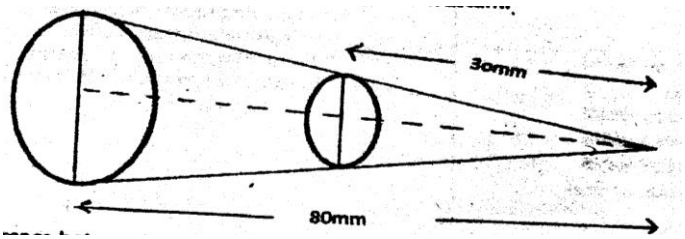
(a) $\tan^2 \propto - \sin^2 \propto$ **(2 marks)**

(b) $\sin(90 - \propto)°$ **(1 mark)**

10. Given that position vector OT = $\begin{pmatrix} 1 \\ -4 \end{pmatrix}$ and the column vector TN = $\begin{pmatrix} 7 \\ 10 \end{pmatrix}$, find the position vector ON **(2 marks)**

11. A pupil stands 20m away from a flag post. The angle of elevation of the top of the post is 30°. Find how far he has to walk towards the post for the angle of elevation to be 82°. (Assume the ground between him and the post is flat. Give the answer to one decimal place **(3 marks)**

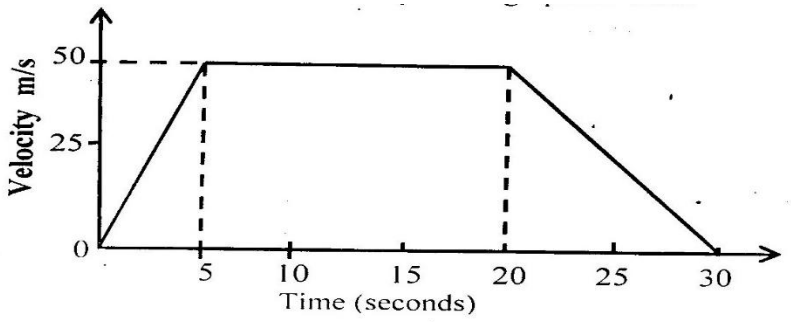
12. A cone 80mm high has mass 7Kg. A frustrum of this cone is formed by cutting off the top 30mm of the cone as shown below. Find the mass of the frustrum **(4 marks)**



13. 10 million shillings was shared by three brothers. Salat got ¼ . Kipgwen got ½ . While Sang' got $\frac{1}{5}$. The remainder was donated to a children home. How much was donated to children home

(3 marks)

14. The figure below is a velocity – time graph for a car.



Find the total distance travelled by the car **(2 marks)**

15. Find the integral values of x which satisfy the compound inequality **(3 marks)**

$3x - 2 \leq 8 + 5x > 12 + 6x$

16. Using a ruler and a pair of compasses only,

(a) Construct triangle ABC in which BC = 8cm, angle ABC= 112.5° and angle BAC = 45°

(2 marks)

(b) Drop a perpendicular from A to meet CB produced at P. Measure length AP and find the area of the triangle ABC **(2 marks)**

SECTION II (50 marks)

Answer **only five** questions in this Section

17. A swimming pool is 20m by 12m and it slopes gently from a depth of 1m at the shallow end to a depth of 3m at the deep end.

(a) Calculate the volume of water in the swimming pool (in m^3) when it is full. **(3 marks)**

(b) If the swimming pool is to be drained by a pump which removes water at the rate of $2.5m^3$ per minute, how long will it take this pump to drain the swimming pool it was full? Give your answer in hours **(3 marks)**

(c) If the sides of the swimming pool and the floor are to be covered with square tiles of side 20cm, find to the nearest 100, the number of tiles required **(4 marks)**

18. The position vectors of A, B and C are A = 3i -2j, B = - 6i+4j and c = -9i -3j.

(a) State the column vectors

(i) AB **(2 marks)**

(ii) CB **(2 marks)**

(b) Find the distance from A to C **(2 marks)**

(c) Find the coordinates of the midpoint of AC **(2 marks)**

(d) If C' is the image of C under translation vector $\begin{pmatrix} 1 \\ -3 \end{pmatrix}$ find the coordinates of C' **(2 marks)**

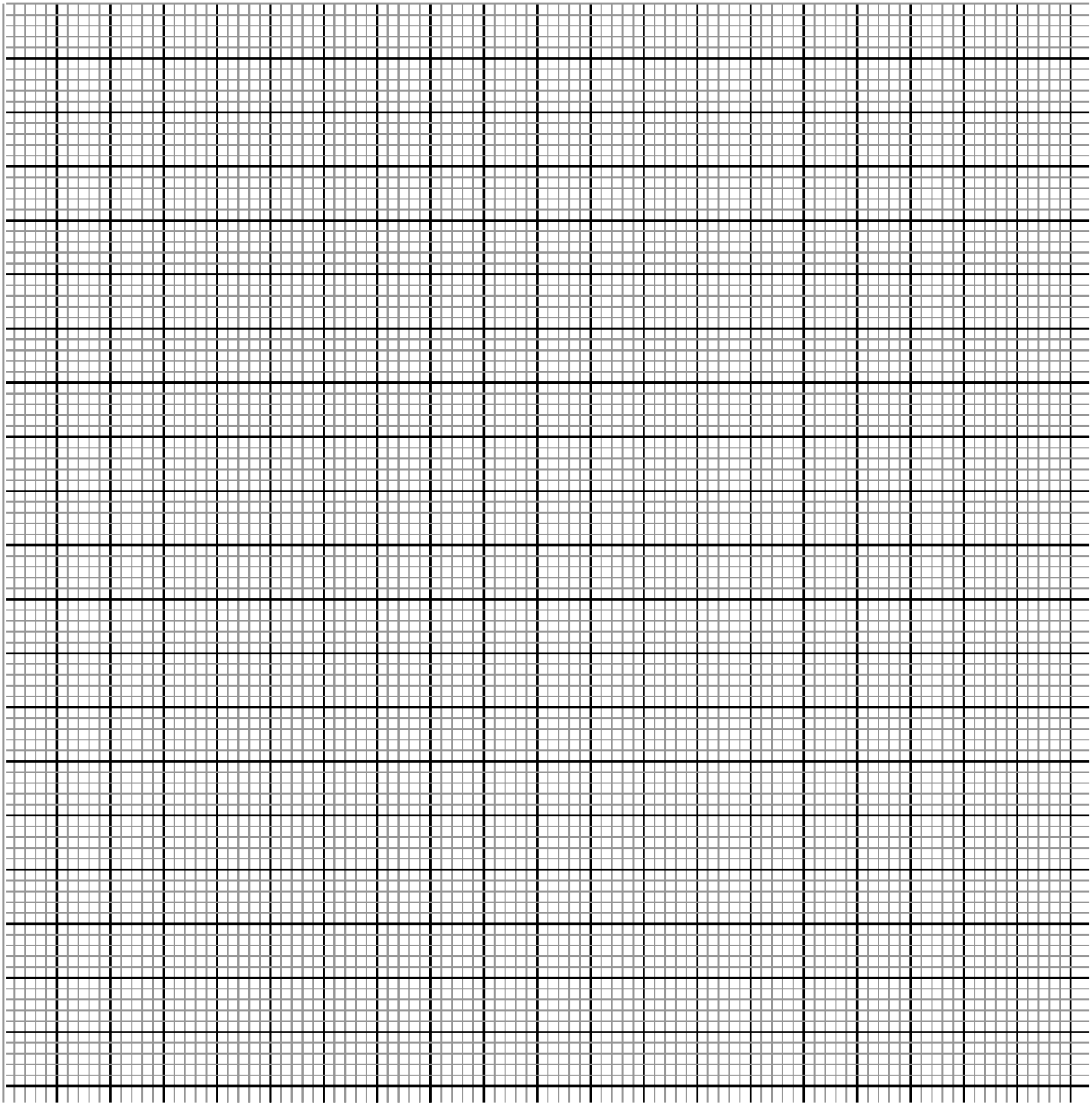
19. The points A'B'C' are the images of A(4,1) B(O,2) and C(-2,4) respectively under a transformation represented by the matrix m = $\begin{pmatrix} 1 & 1 \\ 2 & 3 \end{pmatrix}$

(a) Write down the coordinates of A'B'C' **(3 marks)**

(b) A"B"C" are the images of A'B'C' under another transformation whose matrix N = $\begin{pmatrix} 2 & -1 \\ 1 & 2 \end{pmatrix}$. Write down the co-ordinates of A"B"C" **(3 marks)**

(c) Transformation M followed by N can be replaced by a single transformation P. Determine the matrix for P **(2 marks)**

(d) Determine the inverse of matrix P **(2 marks)**



20(a) Find the equation of a straight line which is perpendicular to 3y – 5x = 5 and passes through the point of intersection of the lines 2x + y = 5 and x – 2y = 0 **(5 marks)**

(b) A straight line y = $^{2}/_{3}\,x - \frac{2}{3}$ meets the x axis at point T.

(i) Determine the coordinates of T **(2 marks)**

(ii) Determine the acute angle between the line y = $\frac{2}{3}x - {}^{2}/_{3}$ and x – axis **(2 marks)**

(iii)Find the y –intercept of line y = $^{2}/_{3}\,x - {}^{2}/_{3}$ **(1 mark)**

21. Bujumba secondary school intends to buy a certain number of chairs for Ksh. 16200. The supplier agreed to offer a discount of Ksh. 60 per chair which will enable the school to get 3 chairs more. Taking y as the originally intended number of chairs.

(a) Write an expression in terms of y for:

(i) Original price per chair **(1 mark)**

(ii) Price per chair after discount **(1 mark)**

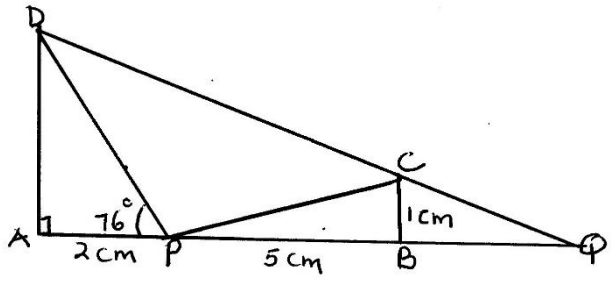
(b) Determine:

(i) The number of chairs the school originally intended to buy **(4 marks)**

(ii) Price per chair after discount **(2 marks)**

(iii) The amount of money the school would have saved per chair if it got the intended number of chairs at a discount of 15%. **(2 marks)**

22. The figure ABCD is a quadrilateral in which AB=7cm, angle DAB = angle ABC = 90°. Angle APD = 76°. Point P lies on AB such that AP = 2cm and PB is 5cm. length BC=1cm. AB produced meets DC produced at Q.



Calculate to one decimal place

(a)The length AD **(1 mark)**

(b) The size of angle CPD **(2 marks)**

(c) The area of quadrilateral ABCD **(2 marks)**

(d) The length BQ **(2 marks)**

(e) The area of triangle CDP **(3 marks)**

23. Andai recorded data on observation of time spent by a local university's first year bachelor of commerce students in the library as follows:

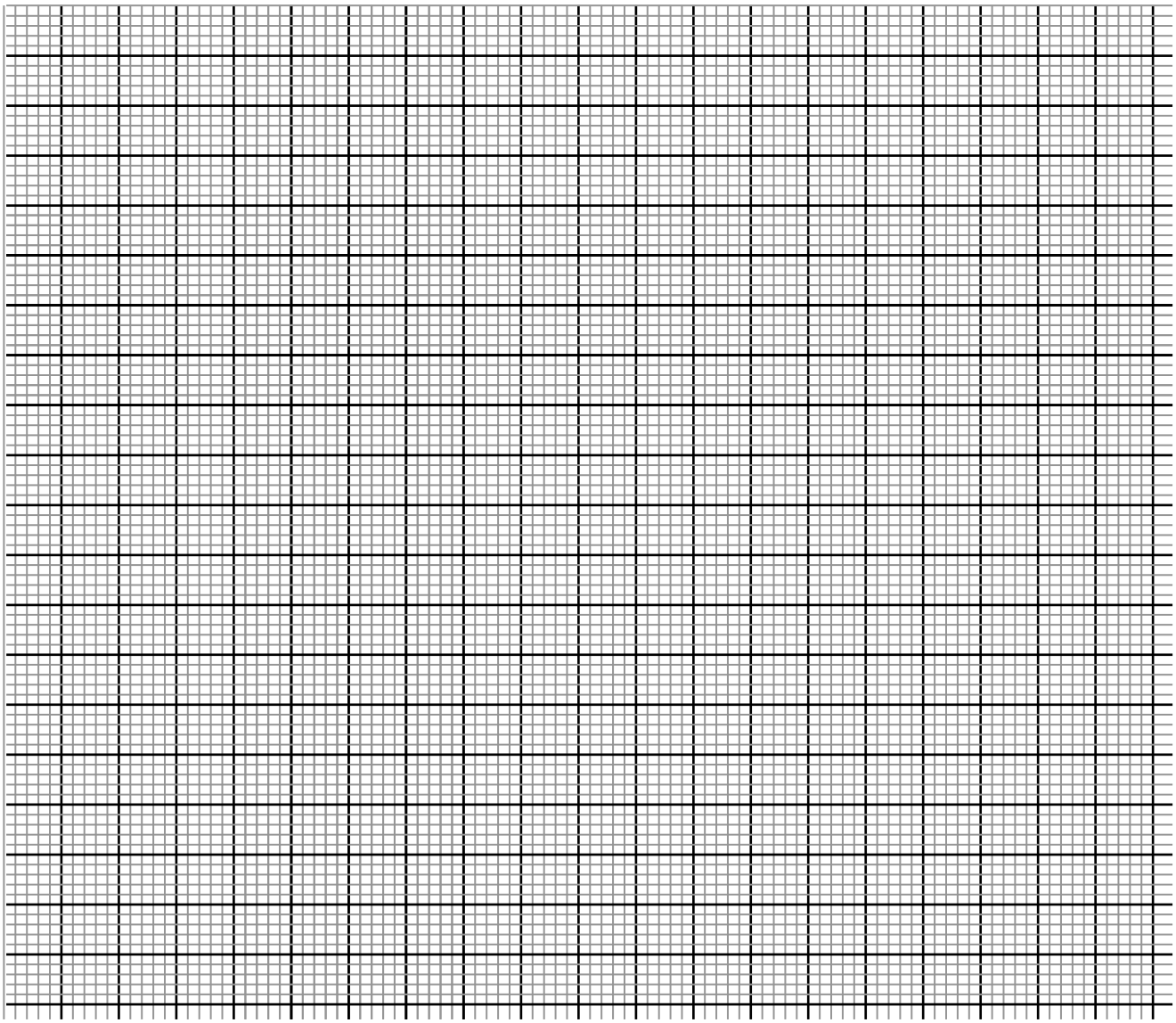
Time spent in minutes	11-20	21-30	31-40	41-50	51-60
Cumulative frequency	70	170	370	470	500

Calculate:

(a) The mean **(4 marks)**

(b) The median **(3 marks)**

(c) On the grid provided, draw a frequency polygon from this data **(3 marks)**



24. The displacement S metres of a moving particle after t seconds is given by $S = 2t^3 - 5t^2 + 4t + 3$.

Determine:

(a) The velocity of the particle when t = 4 seconds. **(3 marks)**

(b) The value of t when the particle is momentarily at rest **(3 marks)**

(c) The displacement when the particle is momentarily at rest **(2 marks)**

(d) The acceleration of the particle when t = 10 seconds **(2 marks)**

KCSE 2024 JOINT MOCK EXAM

SERIES 1

121/2

MATHEMATICS

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

1. *Write your name and Index number in the spaces provided at the top of this page.*
2. *The paper contains two sections: Section I and II.*
3. *Show all the steps in your calculations, giving your answers at each stage in the spaces below each question.*
4. *Marks may be given for correct working even if the answer is wrong.*
5. *Non-programmable silent electronic calculators and KNEC Mathematical tables may be used, except where stated otherwise.*

Section I FOR EXAMINER'S USE ONLY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	TOTAL
Marks																	

Section II

Question	17	18	19	20	21	22	23	24	TOTAL
Marks									

Grand Total

For Marking Schemes Contact 0746 222 000 / 0742 999 000

1. Use logarithms to evaluate **(4mks)**

$$\sqrt[3]{\frac{24.36 \times 0.066547}{1.48^2}}$$

2. Express the following in surd form and simplify by rationalizing the denominator **(3mks)**

$$\frac{1}{cos60° - sin45°}$$

3. Make q the subject of the formula **(3mks)**

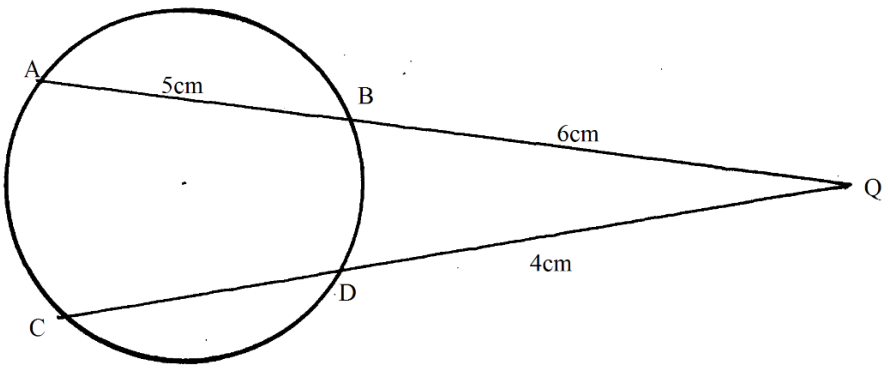
$$P = \sqrt[3]{\frac{nq-m}{q}}$$

4. Without using logarithms tables or calculator evaluate **(3mks)**

$\log_{10} 96 + \frac{3}{4}\log_{10} 625 - \log_{10} 12$

5. The volume V of a cylinder varies jointly as its height, (h) and the square of its radius, (r), calculate the percentage increase in its volume V, when radius increases by 5% and height, h increases by 10%. **(3 mks)**

6. Chords AB and CD in the figure below intersects externally at Q. If AB=5cm BQ=6CM and DQ=4cm, calculate the length of chord CD **(2mks)**



7. Jane can do a piece of work in 4 days while Mary can do the same piece of work in 7 days. Mary and Jane did the job together for two days before Jane fell sick. Mary was left to complete the job. How long did it take to do the job **(3mks)**

8. Solve the equation below in the range $\theta \leq x \leq 180°$ **(3mks)**

2 sin (3x+10) = -1.674

9. Expand and simplify $(3x - y)^4$ hence use the first three terms of the expansion to approximate the value of $(6 - 0.2)^4$ **(3mks)**

10. The prefects body of a certain school consists of 7 boys and 5 girls. Three prefects are to be chosen at random to represent the school at a certain function at Nairobi. Find the probability that the chosen prefects are boys**.** **(2mks)**

11. The sides of a triangle were measured and recorded as 8.4 cm, 10.5 cm and 15.32 cm .Calculate the percentage error in it's perimeter 2d.p. **(3marks)**

12. A(3,2) and B(7,4) are points on the circumference of a circle. Given that chord AB passes through the centre of the circle determine the equation of the circle. **(4marks)**

13. Use matrix method to determine the co-ordinates of the point of intersection of the two lines. **(3mks)**

$3x-2y=13$

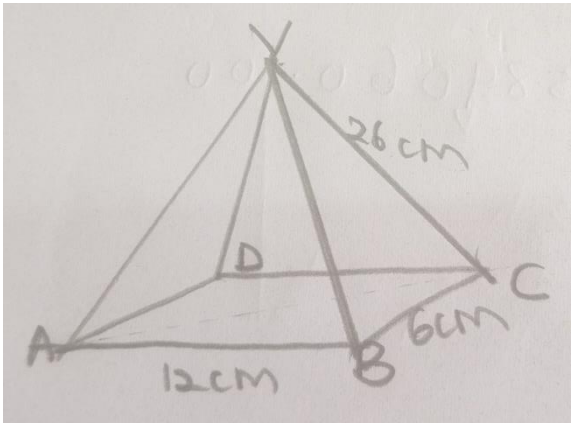
$2y+x+1=0$

14. The sum of two numbers is 9. The sum of the square of the number is 41. Find the numbers **(4 Marks)**

15. Draw a line DF=4.6cm. Construct the locus of a point K above DF such that the angle DKF=90°, **(3mks)**

16. A right pyramid has a rectangular base of 12 cm by 16cm. its slanting lengths are 26 cm. Determine:

(a) The length of AC **(1 mk)**



(b) The angle AV makes with the base ABCD. **(2 mks)**

SECTION II (Answer only five questions)

17. (a) An arithmetic progression is such that the first term is -5, the last is 135 and the sum of the progression is 975. Calculate:

i. The number of terms in the **series** **(4mks)**

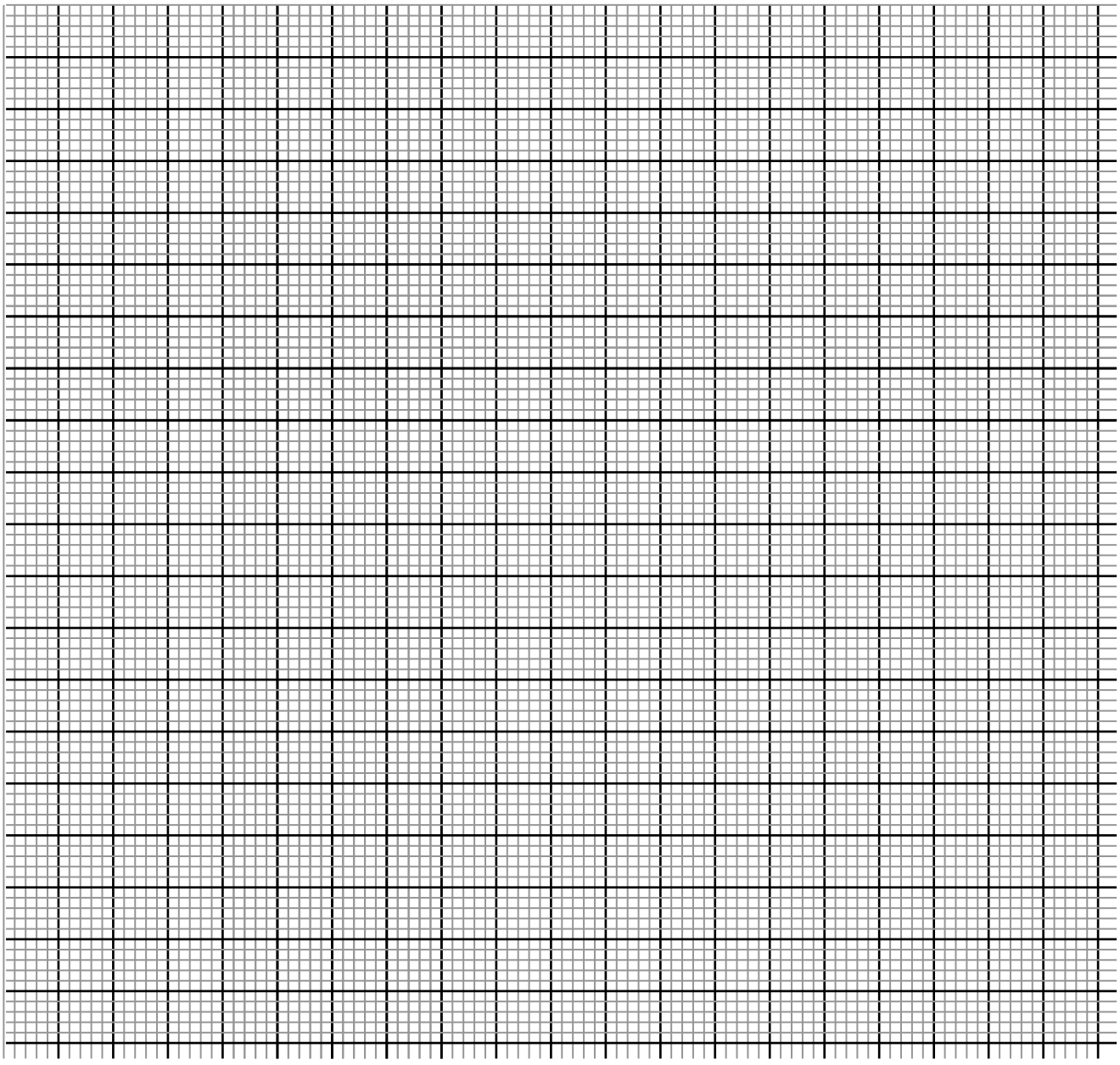
ii. The common difference of the progression **(2mks)**

(b) The sum of the first three terms of a geometric progression is 27 and first term is 36. Determine the common ration and the value of the fourth term **(4 marks)**

18. A′(−6,0), B′(−2,−3) and C′(−2,0) are the vertices of the image of triangle ABC under a transformation described by the matrix $\mathbf{M}=\begin{pmatrix}1 & -2\\ 0 & 1\end{pmatrix}$

(a) Determine the coordinates of triangle ABC **(3 marks)**

(b) (i) On the same grid, draw triangles ABC, A′B′C′ **(2 marks)**



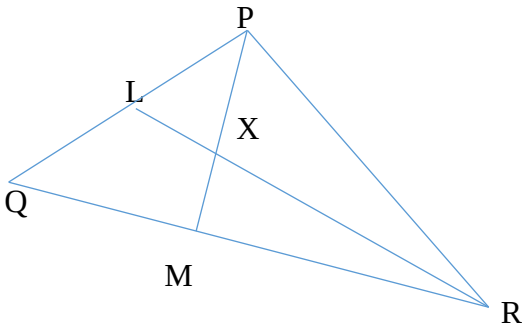
(ii) Describe fully the transformation **M** **(1 mark)**

(c) Triangle A″B″C″ is the image of triangle A′B′C′ such that A″(0,6), B″(6,2) and C″(0,2)

(i) Draw triangle A″B″C″on the same axes **(1 mark)**

(ii) Find a single matrix of transformation that maps triangle ABC onto triangle A″B″C″ **(3 marks)**

19. In the triangle PQR below, L and M are points on PQ and QR respectively such that PL : LQ = 1 : 3 and Qm : mR = 1 : 2. Pm and RL intersect at X. Given that PQ = $\tilde{\boldsymbol{b}}$ and PR = $\tilde{\boldsymbol{c}}$



Q L m XP R

a) Express the following vectors in terms of $\tilde{\boldsymbol{b}}$ and $\tilde{\boldsymbol{c}}$.

i) QR **(1 mark)**

ii) Pm **(1 mark)**

iii) RL **(1 mark)**

b) By taking PX = kPm and RX = hRL where h and k are constants. Find two expressions of PX in terms of h, k, b and c. Hence determine the values of the constants h and k. **(6 marks)**

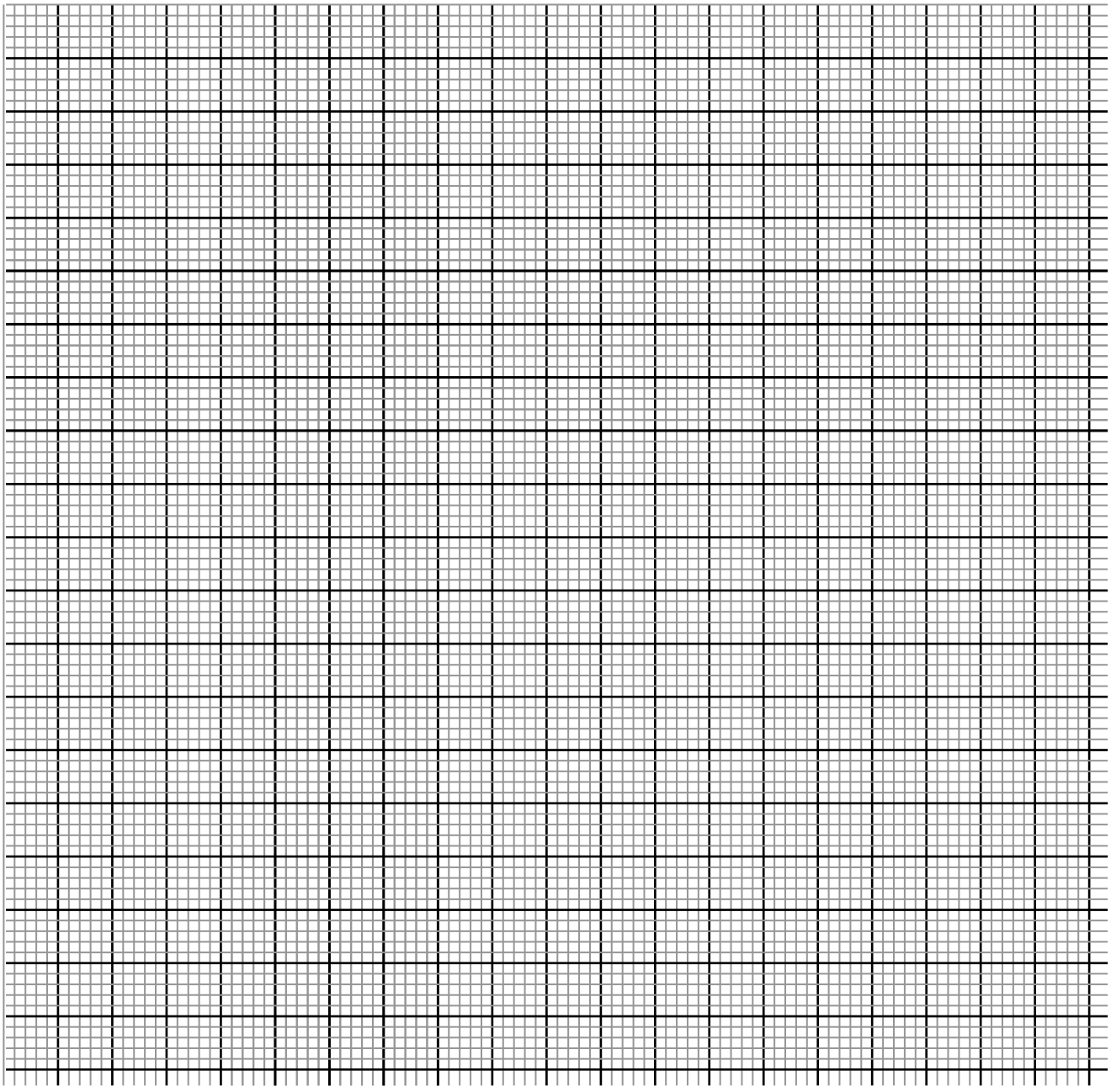
c) Determine the ratio LX : XR. **(1 mark)**

20. The curve given by the equation $y = x^2 + 1$ is defined by the values in the table below.

a) Complete the table by filling in the missing values.

X	0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
Y	1.0		2.0		5.0		10.0		17.0		26.0		37.0

b) Sketch the curve for $y = x^2 + 1$ for $0 \leq x \leq 6$



c) Use the mid-ordinate rule with 6 ordinates to find the area of the region bounded by the curve y = $x^2 + 1$, the axis the lines x = 0 and x = **6** **(2mk)**

d) Use method of integration to find the exact value of the area of the region in (C) above. **(2mk)**

e) Calculate the percentage error involved in using the mid- ordinate rule to find the area. **(2mk)**

21. The table below shows the taxation rates for income earned.

Income in Ksh p.m	Tax rates %
1 – 9680	10
9681 – 18800	15
18801 – 27920	20
27921 – 37040	25
Excess over 37041	30

In that year, Mr. Hamisi paid a net tax of KSh. 5,512 per month. He gets a house allowance of KShs. 10,000, medical allowance of KShs. 2400 and acting allowance of KShs. 2820 per month. He was entitled to a monthly personal relief of KShs. 1162. He has a life insurance policy for which he pays a monthly premium of KSh. 1,500 and claims a relief at a rate of 10% of the premium paid per month. The following deductions also made every month.

(i) N.H.I.F. KSh. 320

(ii) Co-operative society shares KSh. 6000

(iii) Union dues KSh. 200

(a) Calculate Mr. Hamisi's monthly basic salary in KSh. **(7 Marks)**

(b) Calculate his net monthly salary. **(3 Marks)**

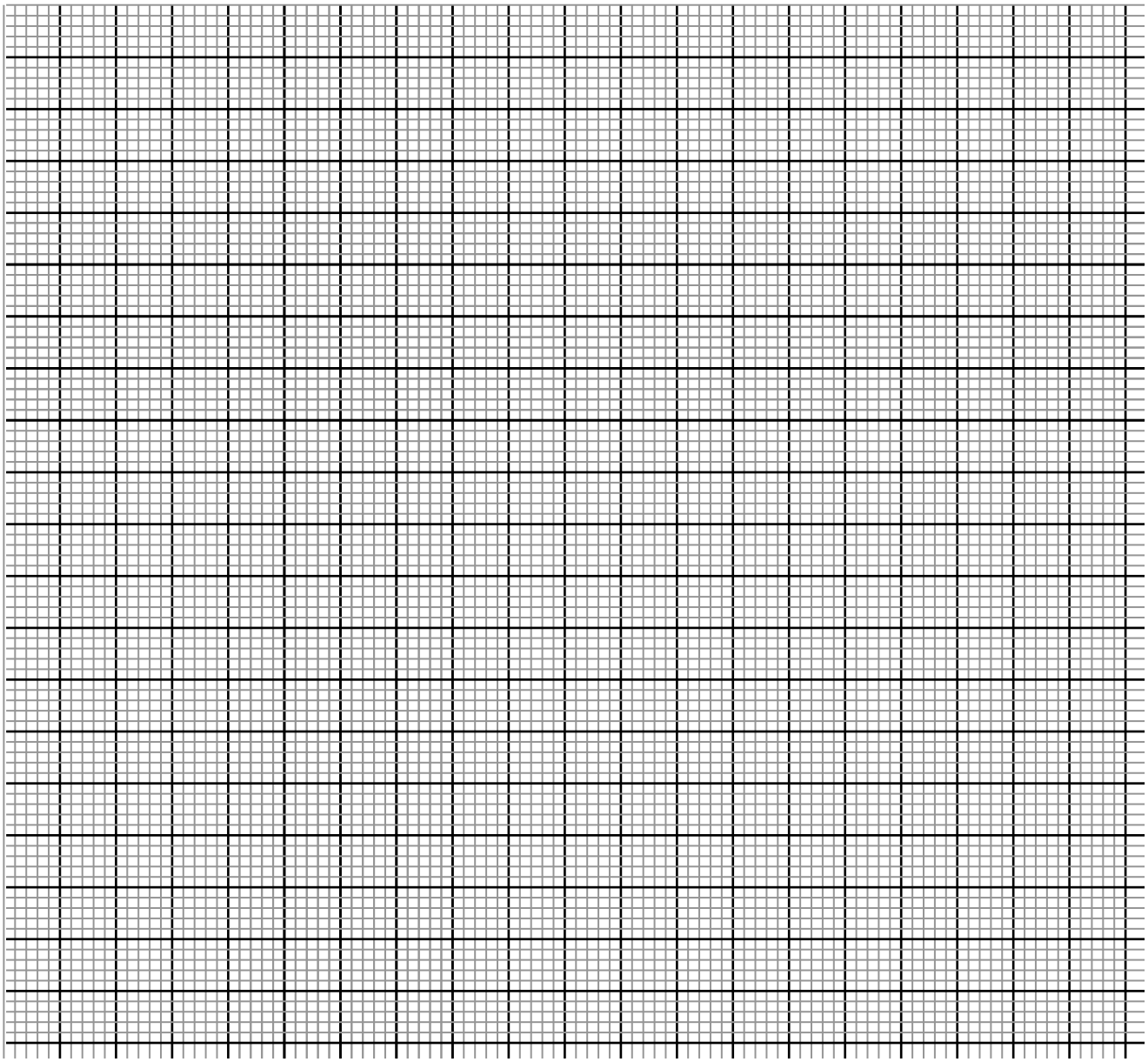
22. The table below gives the marks obtained in a mathematics test by 47 students.

Marks	41-45	46 -50	51-55		61-65	66-70
No. of students	3	7	14	13	7	3

a) (i) Fill in the missing class **(1mark)**

(ii) State the modal class ***(1 mark)***

(b) Draw a cumulative frequency curve to represent the above data. **(3 marks)**



(c) Use your graph to estimate

(i) Median ***(1 mark)***

(ii) Lower quartile ***(1 mark)***

(iii) Upper quartile ***(1 mark)***

(d) Calculate the quartile deviation ***(2 marks)***

23. An aircraft leaves town P (30^oS, 17^oE) and moves directly towards Q (60^oN, 17^oE). It then moved at an average speed of 300 knots for 8 hours Westwards to town R. Determine

a) The distance PQ in nautical miles. **(2 marks)**

b) The position of town R. **(4 marks)**

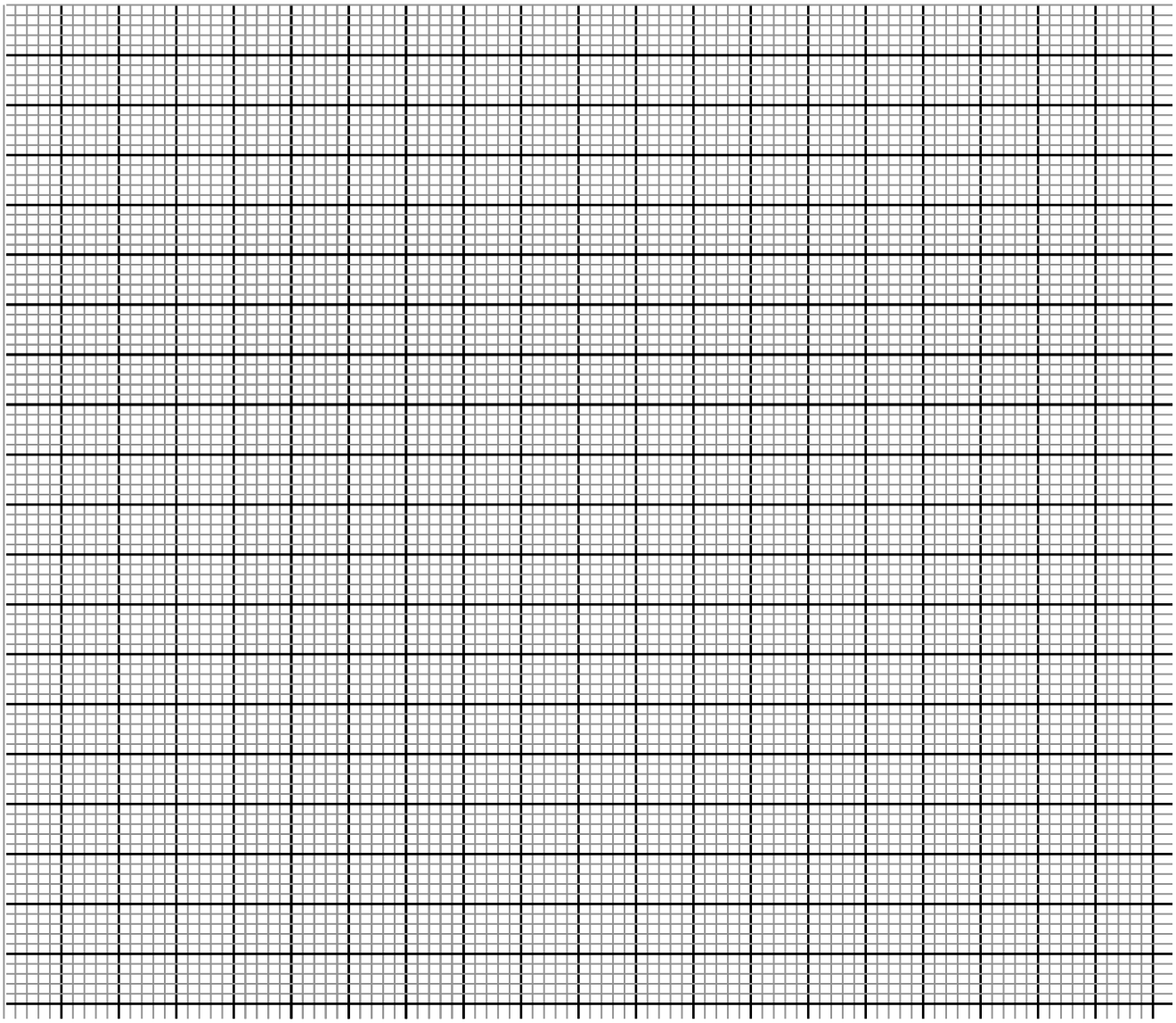
c) The local time at R if local time at Q is 3.12p.m **(2 marks)**

d) The total distance moved from P to R in kilometers. (Take 1nm = 1.853km) **(2 marks)**

24. A certain uniform supplier is required to supply two types of shirts: one for girls labeled G and the other for boys labeled B. The total number of shirts must not be more than 400. He has to supply more of type G than of type B. However the number of type G shirts must not be more than 300 and the number of type B shirts must not be less than 80. By taking x to be the number of type G shirts and y the number of type B shirts.

(a) Write down in terms of x and y all the inequalities representing the information above. ***(4 marks)***

(b) On the grid provided draw the inequalities and shade the unwanted regions. ***(4 marks)***



(c) Given that type G costs Ksh500 per shirt and type B costs Ksh. 300 per shirt

(i) Use the graph in (b) above to determine the number of shirts of each type that should be made to maximize profit. ***(1 mark)***

(ii) Determine the maximum profit ***(1 mark)***

KCSE 2024 JOINT MOCK EXAM

SERIES 1

451/1

COMPUTER STUDIES

PAPER 1 (THEORY)

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

INSTRUCTIONS TO CANDIDATES

- *Write your Name, Admission number in spaces provided above.*
- *This paper consists of **TWO** sections.*
- *Answer **ALL** questions in section **A**.*
- *Answer Question 16 and any other **THREE** Questions from Section **B***
- *All answers MUST be written in the spaces provided on this question paper.*

For Examiner's Use Only

Questions	Maximum Score	Actual Score
1-15	40	
16	15	
17	15	
18	15	
19	15	
20	15	
TOTAL		

For Marking Schemes Contact 0746 222 000 / 0742 999 000

SECTION A: 40 MARKS

Answer all the questions in this Section.

1. State two reasons for the increased use of Laptop computers in modern workplaces **(2marks)**

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2. What precautions would you take in the computer laboratory incase users are complaining of overheating and suffocation. (**2marks)**

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3. Convert the decimal number 15.373_{10} to its binary number system equivalent. **(3marks)**

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4. With an aid of a diagram describe the difference between Repeat Until and While… Do (**3marks)**

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5. State three circumstances which may force an individual to acquire an impact printer instead of non-impact printer. (**3marks)**

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6. Sam prepared a five-page brochure of Maseno School using Ms-publisher. He wanted to insert a school badge in each page of the publication. State two methods he need to apply to execute this task. **(2marks)**

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7. State the difference between ones complement and twos complement (**2marks)**

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8. Explain the impact of Information Technology on organization in each of the following areas.

(2 marks)

(a) Competition.

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(b) Pace of growth.

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9. State four benefits of cloud storage in computing. (**4marks)**

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10. Describe the functions of the following disk management operations.

(a) Defragmentation **(1mark)**

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(b) Partitioning (**1mark)**

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11. Describe four ways through which an organization can minimize threats to it data integrity.

(4marks)

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12. Study the following three sections of code and name accordingly (**3marks)**

10101010110	**MOV AL, 10**	**<OL> Chemistry**
01010101010	**MOV DL, 25**	** Biology**
01000010101	**MUL DL**	** Physics </OL>**
10100010110		

(a) **(b)** **(c)**

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13. Identify how the operating system will label the following drives in case a computer has one floppy drive, one hard disk partition into two and a DVD. (**3marks)**

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14. Five students Jane, Beryl, Baroness, Linda, and Jael scored the following marks in mathematics: 45, 76, 34, 65 and 45. The marks were recorded in cell C3 to C7. Write down the most appropriate function that can be used to give those positions so that they can be awarded in descending order. **(3marks)**

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15. Match the following statements with repeater, router or a bridge. **(2 marks)**

	STATEMENT	**DEVICE**
(a)	Operates at data link layer	
(b)	Determine the best path for data to follow	
(c)	Regenerates signals	
(d)	Forwards everything which it doesn't recognize	

SECTION B: 60 MARKS

ANSWER QUESTION NUMBER 16 ANY OTHER THREE QUESTIONS FROM THIS SECTION

16.

(i) Define the following terms as used in programming. **(3marks)**

(b) Machine dependent

(c) Bug

(d) Syntax

(ii) Give two reasons to justify why most programmers prefer using compilers instead of interpreters. (**2marks)**

(iii) Describe two limitations of machine language. **(2marks)**

(iv) Study the pseudo code below and design its equivalent flowchart (**8marks)**

```
Start
 Count=1
 For count =1 to 5 Do
Get Value 1 and Value 2
 If Value 1 > Value2 Then
 Maximum =Value1
 Else
 Maximum =Value2
 Endif
 Display Maximum
 Count=Count+1
Stop
```

17.

(i) The five-bit number 00101 is used to represent decimal number 5, show three methods of coding for negative 5. (**3marks)**

(ii) Convert the binary number $10101111010110111000 01_2$ into its

(a) Octal equivalent (**2marks)**

(b) Hexadecimal (**2marks)**

(iii) Convert 10101.010101_2 to decimal (**3marks)**

(iv) Use 8-bit twos to subtract 35_{10} from 17_{10} **(3marks)**

(v) Perform the following calculation **(2marks)**

$110001_2+1111_2-11111_2$

18.

(i) Define the term desktop publishing. **(2marks)**

(ii) List three nonprinting guides used in Desktop publishing **(3marks)**

(iii) Explain the following features as used in DTP when manipulating graphical objects.

(a) Fill (**1mark)**

(b) Stroke **(1mark)**

(vi) Describe any three types of action queries. (**3marks)**

(iv) Describe the function of the following features of a query grid.

(a) Criteria **(1mark)**

(b) Show **(1mark)**

(v) Mention three functions of database management software. **(3marks)**

19.

(i) State three causes of system entropy. (**3marks)**

(ii) Describe three main ways of maintaining a computer-based system. **(3marks)**

(iii) State three advantages of using pilot changeover strategy in system development **(3marks)**

(iv) State a stage in system development life cycle where each of the following activities are carried out.

(a) Identifying shortcomings of the system **(1mark)**

(b) Prepare training manuals **(1mark)**

(c) Calculating the cost benefit analysis **(1mark)**

(v) State three outcomes that may result from using incorrect requirement specifications during system development. **(3marks)**

20.

(a) Define the following terms.

(i) Downloading **(1mark)**

(ii) Uploading **(1mark)**

(iii) Blog **(1mark)**

(b) Briefly describe how internet platform have revolutionized business operations in the 21st century. (**3marks)**

(c) Mention three emerging issues that make many people have a negative perception about internet. **(3marks)**

(d) Explain the following terms as used in data processing.

(i) Multiprocessing **(1mark)**

(ii) Batch processing **(1mark)**

(e) Explain the following types of errors.

(i) Overflow error (**1mark)**

(ii) Truncation error **(1mark)**

(f) Mention two application areas of real processing **(2mark)**

KCSE 2024 JOINT MOCK EXAM

SERIES 1

451/2

COMPUTER STUDIES

PAPER 2

TIME: 2½ HOURS

SCHOOL…… **SIGN……**

(Kenya Certificate of Secondary Education)

CONFIDENTIAL INSTRUCTIONS

The information contained in this document is to enable the headteacher of the school and the teacher in charge of Computer Studies (451/2) to make adequate preparation for this year's examination.

Each school offering Computer Studies should ensure that:

1. Each candidate is provided with a computer which has:
   - a new blank CD-RW (i.e. compact disk re-writable)
   - a DVD writing drive
   - The following software installed:
   a)DTP - MS publisher or PageMaker
   b) Word processor - MS Word
   c)Spreadsheet - MS Excel
   d) Database - MS Access
2. Enough computers and fast printers. Two shifts of candidates are recommended.
3. Provide IBM compatible computers
4. Computer teacher should disable the network and computer related examination in the beginning of each session.

KCSE 2024 JOINT MOCK EXAM

SERIES 1

451/2

COMPUTER STUDIES

PAPER 2 (PRACTICAL)

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

Instructions to candidates

a) Indicate you name and index number at the top right hand corner of each printout.

b) Write your name and index number on the CD/Removable provided.

c) Write the name and version of the software used for each question attempted in the answer sheet.

d) Answer **all** the questions

e) All questions carry equal marks.

f) Passwords **should not be used** while saving in the CD/Removable provided.

g) All answers must be saved in your CD/Removable provided.

h) Make a printout of the answers on the answer sheet.

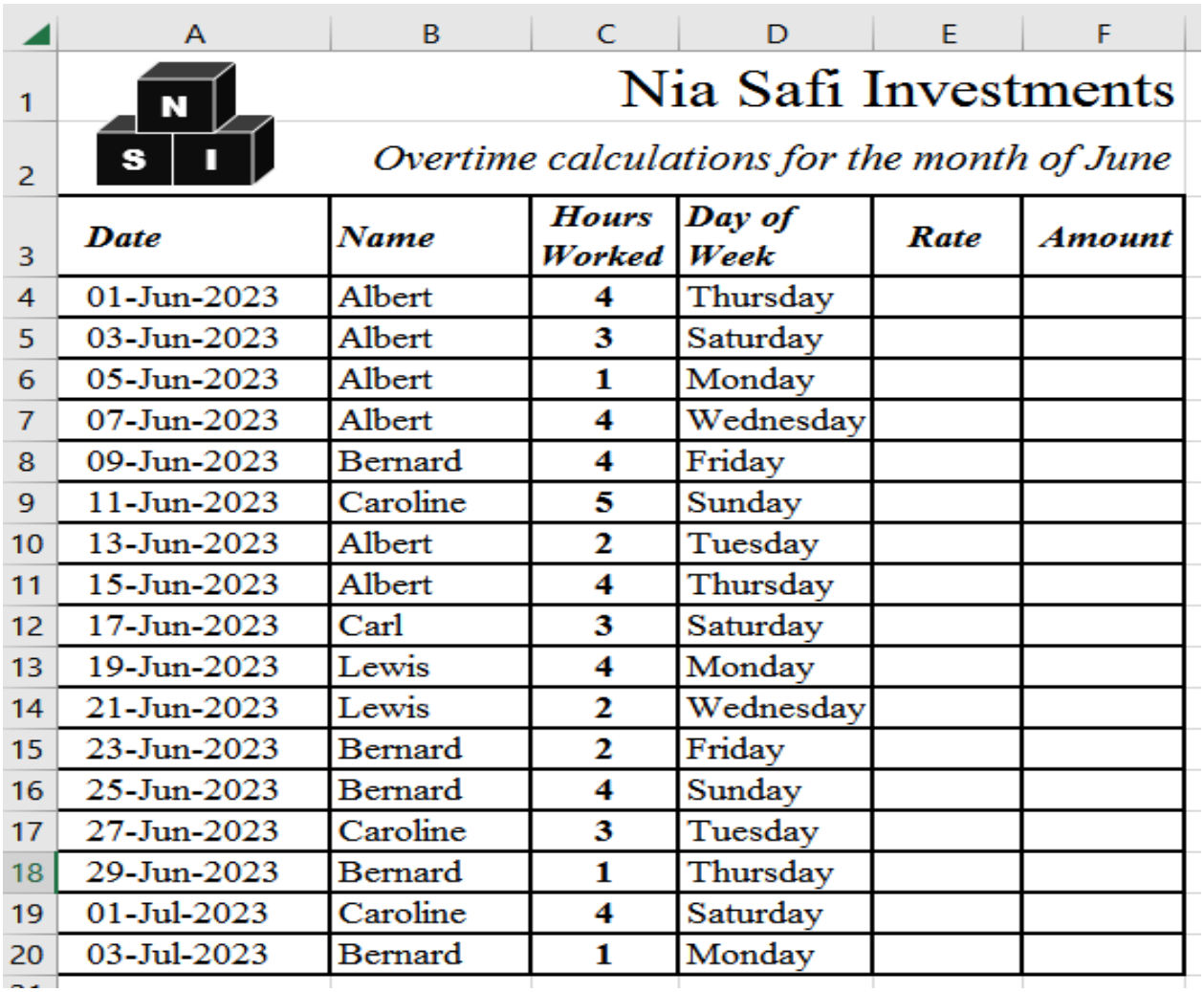
i) Arrange your printouts and staple them together.

j) Hand in all the printouts and the CD/Removable used.

k) Candidates should answer the questions in English.

For Marking Schemes Contact 0746 222 000 / 0742 999 000

1. The table in Figure 1 below was captured from a Nia Safi Investments spreadsheet.



	A	B	C	D	E	F
1			Nia Safi Investments			
2			*Overtime calculations for the month of June*			
3	***Date***	***Name***	***Hours Worked***	***Day of Week***	***Rate***	***Amount***
4	01-Jun-2023	Albert	**4**	Thursday		
5	03-Jun-2023	Albert	**3**	Saturday		
6	05-Jun-2023	Albert	**1**	Monday		
7	07-Jun-2023	Albert	**4**	Wednesday		
8	09-Jun-2023	Bernard	**4**	Friday		
9	11-Jun-2023	Caroline	**5**	Sunday		
10	13-Jun-2023	Albert	**2**	Tuesday		
11	15-Jun-2023	Albert	**4**	Thursday		
12	17-Jun-2023	Carl	**3**	Saturday		
13	19-Jun-2023	Lewis	**4**	Monday		
14	21-Jun-2023	Lewis	**2**	Wednesday		
15	23-Jun-2023	Bernard	**2**	Friday		
16	25-Jun-2023	Bernard	**4**	Sunday		
17	27-Jun-2023	Caroline	**3**	Tuesday		
18	29-Jun-2023	Bernard	**1**	Thursday		
19	01-Jul-2023	Caroline	**4**	Saturday		
20	03-Jul-2023	Bernard	**1**	Monday		

(a) In a new Spreadsheet, enter the information exactly as it appears and save your work as **NSI-Task1**. **(11 marks)**

(b) Enter the table in **Figure 2** below from cell **A23** in the same spreadsheet. **(3 marks)**

Rates Of Pay	
Day of the Week	***Rate (Ksh)***
Saturday	**150.00**
Sunday	**200.00**
Any other Day	**100.00**

(c) Using the information in **Figure 2** and appropriate cell addresses, type a formula in **E4** which you will copy downwards to obtain all the rates of pay in respective cells. **(6 marks)**

(d) Copy the formula in part (c) above to obtain all rates of pay. **(2 marks)**

(e) Using an appropriate Function, work out the Amounts considering that *Amount = Hours Worked × Rate*. **(4 marks)**

(f) Rename the used spreadsheet as '*Calculations*'. **(1 mark)**

(g) Save the work done so far as **NSI-Task2**. **(1 mark)**

(h) Create a duplicate copy of Calculations sheet, hence rename the copy as '*Subtotals'*. **(2 marks)**

(i) Using the data Subtotaling feature, work out the totals paid to every worker within the period. **(3 marks)**

(j) Create another copy of Calculations Sheet as rename it as '*Attendance'*. **(2 marks)**

(k) Replace the information in table from A23 to appear as follows: **(2 marks)**

Attendance Register	
Employee	***Times Attended***
Albert	
Bernard	
Caroline	
Carl	
Lewis	

Figure 1

(l) Using an appropriate function count the ***Times Attended*** by each of the employees into the table in Figure 3 above. **(3 marks)**

(m) Use a 3-D pie chart to represent the data in Figure 3 above. Apply the following settings: **(5 marks)**

- Title: *Times Attended Chart*
- Legend: *Placed at the bottom*
- Labels: *Both Percentages & Values*
- Location: *As a New Sheet named* **Pie-Chart**.

(n) Save the final work as **NSI-Task3**. **(1 mark)**

(o) In **NSI-Task3,** ensure that every worksheet has a header bearing your name, admission number and class. **(2 marks)**

(p) From **NSI-Task3**, print the **Calculations**, **Attendance**, **Subtotals** and **Pie-Chart (2 marks)**

2. (a) Use a DTP software to design the following publication as it is with the following settings:

(i) paper size = **A4**

(ii) orientation = **Landscape**

(iii) page margins = **0.25** inches all around

(i) Guides: Column 1 Width = 5.2"

Space between Columns = 0.75"

Column 2 Width = 5.2"

(ii) File name = **ExcellenceBook** **(6 marks)**

(b) Design the publication as it appears on the following page on the page you have created and fit all the items within the page. **(38 marks)**

(c) Insert your name and admission number as header, then your class and page number as footer. **(4 marks)**

(d) Print the publication. **(2 marks)**

EXCELLENCE COMPUTER STUDIES

BOOK ONE

EXCELLENCE COMPUTER STUDIES

Top Achievers

Volume One

About This Book

This book guides you on gaining excellent skills on the following practical areas:

- *Word Processing*
- *Spreadsheet Applications*
- *Desktop Publishing*
- *Database Management*

Ksh. 250

For Marking Schemes Contact 0746 222 000 / 0742 999 000

KCSE 2024 JOINT MOCK EXAM

SERIES 1

441/1

HOME SCIENCE

PAPER 1 (THEORY)

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

Instructions to candidates

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

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

*(c) This paper consists of **3 sections A, B** and **C**. Answer **all questions in section A and B** and **any two** from section **C**. All answers must be written in the answer booklet provided.*

*(d) All Answers must be written in **English***

FOR EXAMINER'S USE ONLY

Section	Question	Maximum score	Candidates score
A	1-19	40	
B	20	20	
C	21-23	20	
		20	
Total score		100	

For Marking Schemes Contact 0746 222 000 / 0742 999 000

SECTION A COMPULSORY (40MKS)

Answer all questions in this section in the spaces provided

1. State the meaning of the term patching as used in repair of clothes. **(2mks)**

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2. Give 2 reasons why clothes should be mended before washing **(2mks)**

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3. Mention 3 factors influencing the choice of a color scheme for a bedroom **(3mks)**

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4. Suggest 4 ways of preserving meat at home **(2mks)**

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5. Mention 2 ways used to disinfect garments before washing **(2mks)**

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6. Give 2 examples of self neatened seams that are worked on a school blouse **(2mks)**

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7. Distinguish between a sprain and a fracture **(2mks)**

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8. Mention 3 factors considered when choosing a method of cooking **(3mks)**

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9. Outline 3 signs and symptoms of food poisoning at home **(3mks)**

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10. Explain the meaning of the term fibre as used in clothing and textiles **(1mk)**

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11. State 2 qualities considered when choosing dressmaker's pins **(2mks)**

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12. State the role of a tension disc on a sewing machine **(1mk)**

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13. Suggest 2 handmade stitches that can be used to neaten the raw edge of a seam **(2mks)**

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14. Outline 3 reasons for proper drainage at school **(3mks)**

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15. Give 2 reasons why vitamin C should be adequate in the diet **(2mks)**

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16. Give 2 reasons why convinience foods may be preferred at home **(2mks)**

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17. Identify 2 methods of purifying water at home **(2mks)**

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18. Identify 4 fat soluble vitamins **(2mks)**

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19. Mention 2 problems experienced by consumers today (**2mks)**

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SECTION B (20MKS)

COMPULSORY

Answer question 20 in the spaces provided;

20. You have been left at home to carry out tasks in preparation for guests intending to visit over the weekend

a)Describe the procedure you will follow to launder a white cotton tablecloth **(8mks)**

b) Describe the thorough cleaning of the fridge used to preserve some food items **(7mks)**

c) Describe the cleaning of a ceramic cup for use at the table **(5mks)**

SECTION C (40MKS)

Answer any two questions from this section in the spaces provided

21.a) Describe 3 characteristics of the buffet style of meal service **(6mks)**

b) Explain 4 points considered when buying a family house **(8mks)**

c) Describe 3 ways of improving breastmilk supply for a lactating mother **(6mks)**

22.a) Outline 3 reasons for interfacing a waistband **(6mks)**

b) Explain 3 reasons for sufficient lighting in the kitchen **(6mks)**

c) Outline 4 qualities of a good toilet brush **(8mks)**

23.a)Outline 3 reasons why consumers should not buy a cooker on hire purchase **(6mks)**

b) Describe 3 preparations done on a fabric before cutting out **(6mks)**

c) Describe 4 qualities of a good play item for a 2 year old child **(8mks)**

The End

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KCSE 2024 JOINT MOCK EXAM

SERIES 1

441/2

HOME SCIENCE

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

HOMESCIENCE

PAPER 2

CLOTHING CONSTRUCTION

TIME: 2 ½ HRS

Instructions to candidates

1. This paper consist of three printed pages

2. ***Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing.***

3. Candidates ***must*** *use machine stitches appropriately in the construction of the garment.*

4. Hand stitches used ***instead*** *of machine stitches will not be marked.*

5.Hand stitches will only be allowed for the making of hemming and tacking stitches.

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THE TEST

A pattern of a girls dress has been provided .You are advised to study the sketches ,read instructions and layout carefully before you begin the test.

1.MATERIALS PROVIDED

A Bodice front

B Bodice back

C Skirt front

D Skirt Back

E Sleeve

F Collar

G Cut out a crossway strip measuring 18cm long and 9cm wide.

2.Plain light weight cotton fabric 70cm long by 90 cm wide.

3.cotton sewing thread to match the fabric.

4,One large envelope.

THE TEST

Using the materials provided, cut out and make the **LEFT SIDE,** of the girls dress to show the following processes.

a) Cutting out **(17mks)**

b) Making of the dart at the front bodice **($6^1/_2$mks)**

c) Making of a shoulder seam using a double stitched seam **(8mks)**

d) Making of the side seam on bodice skirt using an open seam **(11mks)**

e) Attaching of the bodice pieces to the skirt pieces using a plain seam and neatening half of the back seam using loop stitches **(11mks)**

f) Preparation of the collar and attaching of the collar using a crossway strip **($15^1/_2$mks)**

h) Making of the underarm seam using an open seam **(6mks)**

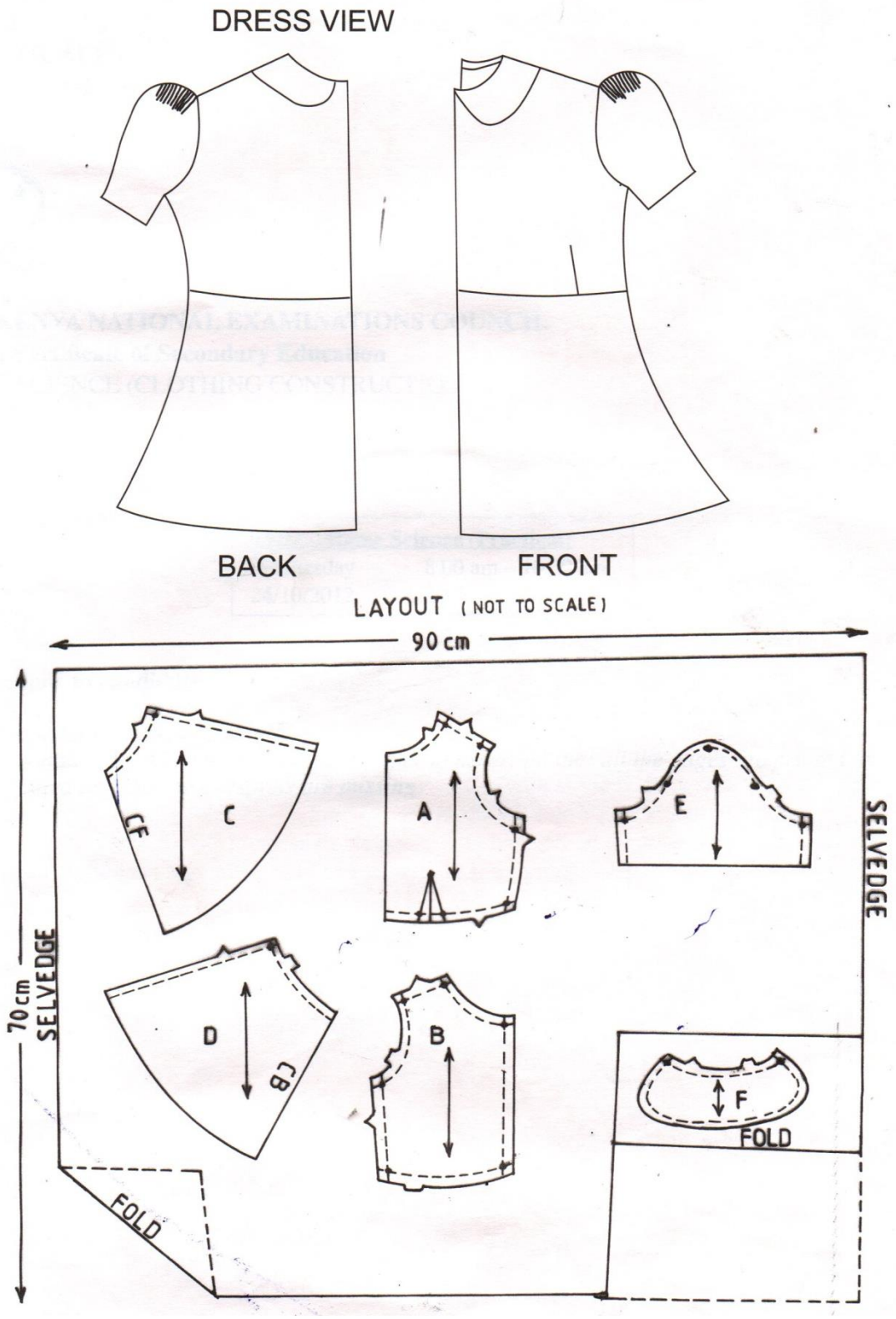
i) Preparation and attachment of the sleeve .Do not trim or neaten the seam allowance **($8^1/_2$)**

j) Overall presentation($6^1/_2$ mks)

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OMIT

The management of the lower hem of the skirt and the sleeve.



KCSE 2024 JOINT MOCK EXAM

SERIES 1

441/3

HOME SCIENCE

PAPER 3

TIME: 1¾ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

(Kenya Certificate of Secondary Education)

[FOOD AND NUTRITION] Practical

Time: 1 ¼ Hours

Planning session: 30 minutes

Practical session 1 ¼ hours

INSTRUCTIONS TO CANDIDATES

- Read the test carefully.
- Textbooks and recipes may be used during planning session as reference materials
- You will be expected to keep to your order of work during the practical session.
- You are not allowed to bring additional notes to the practical session.

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THE TEST

You are planning to go for a picnic with your friends using the items listed below to prepare, cook and pack two items to be eaten away from home, include a refreshing drink

Ingredients

-Self raising flour/bread

- Sugar

-Tomatoes

-Milk

-Margarine

-Eggs

-Fruits in season

-carrots

Planning Session.

Use separate sheets of paper for each task listed below and a carbon paper to make duplicate copies and proceed as follows: -

(i). Identify the dishes and write down their recipes

(ii). Write down your order of work.

(iii). Make a list of the food stuff, equipment and materials you would require.

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CALL/TEXT/WHATSAPP

0746-222-000
0742-999-000

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