FORM 3 ENDTERM 2 EXAMS

ALL SUBJECTS

Compilation of Standard set of End of Term 2 Questions for the Current Class to ALL Secondary Schools in Kenya.

SUBJECTS COMPILED;

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

SERIES 1

For Marking Schemes

Mr Isaboke 0746-222-000 / 0753-222-000

MWALIMU CONSULTANCY

FORM 3 ENDTERM 2 EXAMS

SERIES 1

313/1

CHRISTIAN RELIGIOUS EDUCATION

PAPER 1

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES:

- ***a)*** *There are **six** questions in this paper.*
- ***b)*** *This paper has got **two** pages.*
- ***c)*** *Answer any **five** questions.*
- ***d)*** *Each student must verify that all pages and questions are present in the paper.*
- ***e)*** *All answers must be in the answer sheets provided.*
- ***f)*** *All answers must be in English.*

FOR EXAMINERS' USE ONLY

Question	1	2	3	4	5	6	**TOTAL**
Score							

*Answer any **five** questions*

1. **(a) Identify** seven teachings on the relation between human beings and the environment from Genesis stories of creation. **(7mks)**

(b) With reference to the story of the fall of human in Genesis 3, state the effects of sin on Adam and Eve. **(8mks)**

(c) State **five** consequences of breaking taboos in traditional Africa communities. **(5mks)**

2. **(a) Describe** the covenant ceremony between God and Abraham. (Genesis 15:1-9) **(8mks)**

(b) State the characteristics of the covenant between God and Abraham. **(7mks)**

(c) Identify five lessons that Christians learn about God from the call of **Abraham. (5mks)**

3. **(a)** Describe the contest between prophet Elijah and prophet of Baal at Mount Carmel (1st Kings **18:17-40)** **(8mks)**

(b) State seven problems faced by Prophet Elijah in Israel. **(7mks)**

(c) Identify qualities of Prophet Elijah that a Christian leader should posses. **(5mks)**

4. **(a) State five** ways in which prophetic messages were compiled. **(5mks)**

(b) Outline the message of hope that prophet Amos gave to Israel if they turned to God. **(7mks)**

(c) Give reasons why Christians repent their sins. **(8mks)**

5. **(a)** Outline six response that Jeremiah made to God during his call **Jere 1:4-19** **(6mks)**

(b) Show how the letter Jeremiah wrote to the exiles gave them hope for restoration**. Jere. 29;4-15** **(7mks)**

(c) Suggest seven reasons why Christians should accept pain and suffering in their daily lives. **(7mks)**

6. **(a)** Name the specialists in traditional African Communities. **(5mks)**

(b) Explain reasons why cleansing rituals were performed in Traditional Africa**n Communities.** **(8mks)**

(c) Outline seven reasons why the church is opposed to female genital mutilation. **(F.G.M.) (7mks)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

313/2

CHRISTIAN RELIGIOUS EDUCATION

PAPER 2

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES:

- ***a)*** *There are **six** questions in this paper.*
- ***b)*** *This paper has got **two** pages.*
- ***c)*** *Answer any **five** questions.*
- ***d)*** *Each student must verify that all pages and questions are present in the paper.*
- ***e)*** *All answers must be in the answer sheets provided.*
- ***f)*** *All answers must be in English.*

FOR EXAMINERS' USE ONLY

Question	1	2	3	4	5	6	**TOTAL**
Score							

Answer any five questions from this paper.

1. **(a) Outline** Isaiah's prophecy on the suffering servant. (**Isaiah 53)** **(7 mks)**
   (b) Describe the annunciation of the birth of John the Baptist (Luke 1:5-25) **(8 mks)**
   (c) State five ways in which a Christian couple should respond to **childlessness.** **(5 mks)**

2. **(a) Describe** the commissioning of the Twelve Disciples of Jesus according to **Luke 9:1-9** **(8 mks)**
   (b) Give six reasons why Jesus faced opposition from the Pharisees and the scribes during his Galilean ministry. **(6 mks)**
   (c) State six ways in which Christians are taking care of the needy. **(6 mks)**

3. **(a) Outline** the preparations made towards the celebration of the last supper. **(7 mks)**
   (b) Relate the parable of the prodigal son Luke 15:11-32. **(7 mks)**
   (c) State the lessons learnt about God from the parable of the prodigal son. **(6 mks)**

4. **(a) Outline** Paul's instructions on the use of spiritual gifts for the purpose of order in the church. **(7 mks)**
   (b) In what ways was unity demonstrated by Christians in the early church? **(7 mks)**
   (c) State six factors that threaten unity in the church today. **(6 mks)**

5. **(a) Describe** the call of the first disciples of Jesus. **(7 mks)**
   (b)Give reasons why Christians should observe Jesus teaching on the cost of discipleship**(5 mks**
   (c) With reference to the sermon on the plain describe four teachings of Jesus from the beatitudes. **(8 mks)**

6. **(a) Describe** the body of Christ(Corinthians 12:12-27) **(8 mks)**
   (b) What lessons can Christians learn from the events of the day of Pentecost? **(5 mks)**
   (c) Outline seven ways in which the gift of prophecy is used in the church today. **(7 mks)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

311/1

HISTORY AND GOVERNMENT

PAPER 1

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

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

MARKS TABLE

SECTION A	17	18	19	20	21	22	TOTAL

SECTION A: 25 MARKS

Answer all the questions in this section.

1. Give the ***main*** source of information on unwritten history **(1mark)**

2. Give ***two*** functions age set among the Agikuyu in pre-colonial Kenya. **(2 marks)**

3. Give ***two*** ways of interaction between Kenya societies in the 19th century**.** **(2 marks)**

4. Identify the name of the council of elders among Mijikenda community**.** **(1 mark)**

5. Why was 1957 elections in important in history of Kenya. **(1 mark)**

6. Give ***two*** contributions of the early missionaries in the field of education **(2 marks)**

7. Give ***two*** characteristics of a good constitution. **(2 marks)**

8. Identify ***two*** special groups whose rights are protected by Kenyan constitution**.** **(2 marks)**

9. State ***two*** reasons why colonial government encouraged settler farming in Kenya **(2 marks)**

10. Identify ***two*** communities that showed mixed reactions in Kenya. **(2 marks)**

11. Identify ***one*** reason why trade unions were not formed in Kenya by 1914. **(1 mark)**

12. Name ***two*** cash crop that Africans were prohibited from growing in colonial Kenya**.** **(2 mark)**

13. Name the body in charge of election in Kenya. **(1 mark)**

14. Identify ***two*** features of independent schools and churches in colonial Kenya. **(2 mark)**

15. Give the political parties that represented Kenya during the 2nd Lancaster House Conference of **1962.** **(2 mks)**

SECTION B (45 MARKS)

Answer any three questions from this section

16. a) Give three reasons why early visitors came to the East African Coast**.** **(3 marks)**

(b) Explain six factors which led to the decline of Coastal towns after 1500A**.D(12 mks)**

17. (a) Give ***five*** reasons why the Maasai collaborated with the British during the colonial period in Kenya. **(5 ks)**

(b) Explain ***five*** reasons why the Nandi resisted the British for so long. **(10 marks)**

18. **(a)** Identify ***five*** results of Devonshire White Paper of 1923. **(5 marks)**

(b) Explain ***five*** consequences of colonial land policies in Kenya. **(10 marks)**

19. **(a)** Give ***five*** characteristics of early political organizations in Kenya. **(5 marks)**

(b) Explain five problems faced by trade union movements in Kenya during colonial period. **(10 marks)**

SECTION C (30 MARKS)

Answer any two questions from this section

20. (a) Name ***five*** members of African Elected Members Organization. **(5 marks)**

(b) Describe ***five*** impacts of the First Lancaster House Conference of 1960**.** **(12 marks)**

21. a) State ***three*** methods that were used by African Nationalist during the struggle for independence**.** **(3 marks)**

b) Explain the role of women in the Mau Mau movement**.** **(12 marks)**

22. (a) Identify ***five*** levels of conflicts **(5 marks)**

(b) Explain ***five*** factors that promote national unity in Kenya. **(12 marks)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

311/2

HISTORY AND GOVERNMENT

PAPER 2

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

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

b) *Answer **ALL** the questions in section **A**, **THREE** questions from section **B** and **TWO** questions from Section **C.***

c) *Answers to **all** the questions **must be** written in the answer booklet provided.*

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

MARKS TABLE

SECTION A	17	18	19	20	21	22	TOTAL

SECTION A (25 Marks)

(Answer ALL the Questions in this section)

1. State ***two*** arms of Government. **(2 Mark)**

2. Identify ***one*** theory explaining the origin of man. **(1 Mark)**

3. Name ***two*** species of Homo sapiens. **(2 Marks)**

4. Name any ***two*** centers of Agricultural Revolution. **(2 Marks)**

5. State the ***two*** main methods of trade. **(2 Marks)**

6. Give ***two*** examples of regional trade. **(2 Marks)**

7. Identify ***two*** means of transport that comprised early land transport. **(2 Marks)**

8. Identify the sailing ship used by the Greeks. **(1 Mark)**

9. Identify ***one*** early source of energy. **(1Mark)**

10. Give the major limitation of using water as a source of energy. **(1 Mark)**

11. List ***two*** factors for the growth of Meroe. **(2 Marks)**

12. Identify ***one*** historical building in Kilwa. **(1 Mark)**

13. Identify the symbol of national unity among the Shona. **(1 Mark)**

14. State ***two*** sources of the principles on which the British constitution is made. **(2 Marks)**

15. Name ***one*** missionary society that came to spread Christianity in Africa. **(1 Mark)**

16. State ***one*** function of Emirs in Northern Nigeria. **(1 Mark)**

17. Who was the first Prime Minister of India. **(1 Mark)**

SECTION B (45 Marks)

*(Answer **Any Three** Questions from this section)*

18. (a) State ***five*** stages of evolution of man before Homo erectus. **(5 Marks)**

(b) Describe the way of life of human beings during the late stone age period. **(10 Mark)**

19. (a) Give ***three*** negative impacts of scientific inventions in agriculture. **(3 Marks)**

(b) Explain factors that have hindered industrialization in Africa. **(12 Marks)**

20. (a) State ***five*** methods used by the British to colonize Buganda kingdom. **(5 Marks)**

(b) What benefits did the Buganda people get as a result of their collaboration? **(10 Marks)**

21. (a) How did the attainment of independence of Ghana contribute to liberation of other African countries? **(3 Marks)**

(b) Describe African Nationalists activities that intensified the struggle for independence in South Africa. **(12 Marks)**

SECTION C (30 Marks)

*(Answer **Any Three** Questions from this section)*

22. (a) Identify the privileges enjoyed by assimilated Africans in the four communes in Senegal **(5 Marks)**

(b) Explain reasons why French policy of assimilation failed. **(5 Marks)**

23. (a) Outline three features of direct rule in Zimbabwe. **(3 Marks)**

(b) What were the disadvantages of indirect rule system of administration? **(12 Marks)**

24. (a) State the terms of the Rudd Concession treaty of 1883. **(3 Marks)**

(b) State six grievances of the Ndebele and the Shona during the Chimurenga war of 1896- 1897 **(12 Marks)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

312/1

GEOGRAPHY

PAPER 1

TIME: 2¾ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

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

b) *Answer **ALL** the questions in **section A.***

c) *In section **B,** answer **questions 6** and any other **TWO** questions.*

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

FOR EXAMINER'S USE ONLY

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1 – 5	25	
B	6	25	
		25	
		25	
TOTAL SCORE			

SECTION A

(Answer all questions in this section)

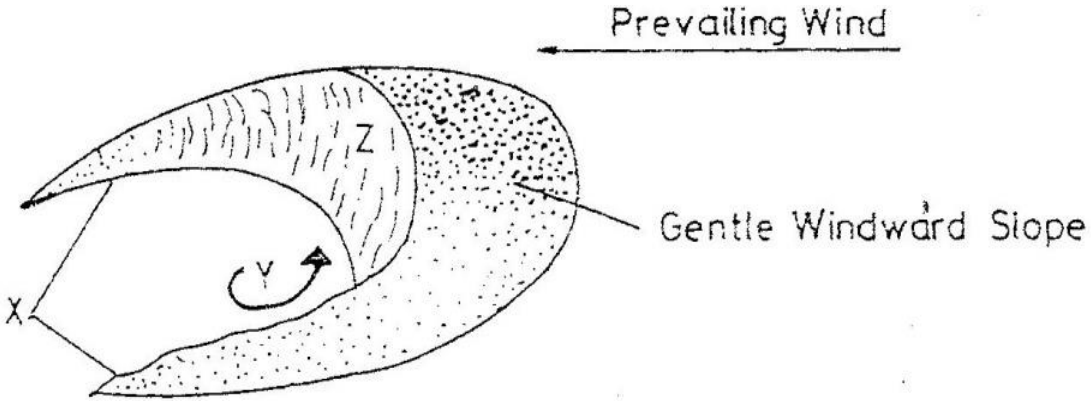
1) (a) Give two components of the solar system. **(2mks)**

(b) State three effects of the movement of the earth around the sun**.** **(3mks)**

2) (a) How does a land breeze occur? **(2mks)**

(b) Name three ocean currents found on the coasts of West **Africa.** **(3mks)**

3) The diagram below represents a barchans, use it to answer question (a).



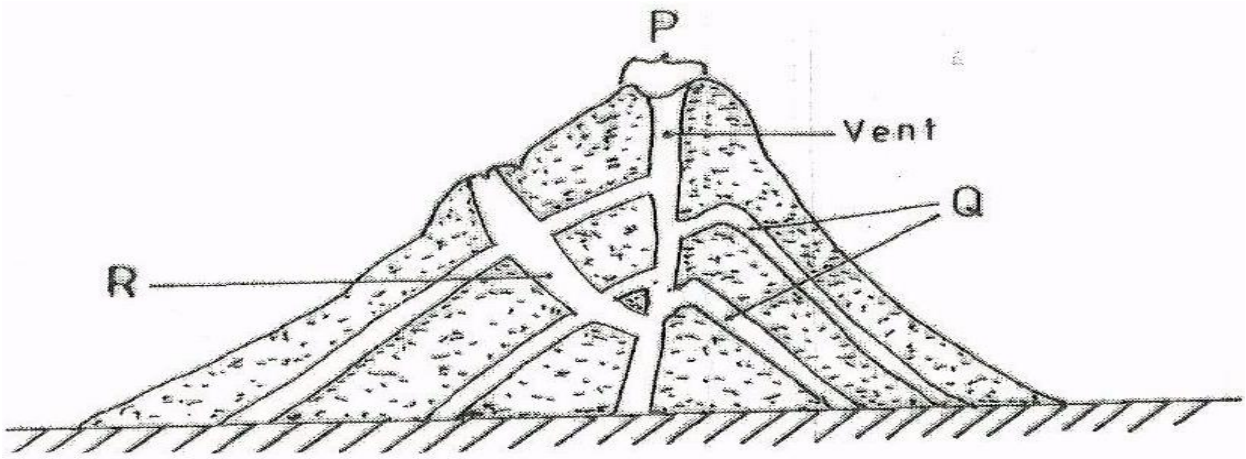
a) (i) Name the feature marked X. **(1mk)**

(ii) The air current marked Y. **(1mk)**

(iii) The slope marked Z. **(1mk)**

b) State two ways in which wind transports its loads. **(2mks)**

4) The diagram below shows a composite volcano.



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

ii) Give two ways in which vulcanicity influences human activities**.** **(2mks)**

5) (a) What is the difference between ice sheet and ice berg? **(2mks)**

(b) Name three types of glacier moraine. **(3mks)**

SECTION B

*Answer question **6** and any other **TWO** questions in this section.*

6. **(a**) Study the map of Tambach **1:50 000 (sheet 90/3)** provided and answer the Following questions.

(i) Name ***three*** human features found in grid square 8260. **(3 marks)**

(ii) Measure the length of all-weather road loose surface C 51from the junction near the mining camp to the southern edge of the map. Give your answer in Kilometers. **(2 marks)**

(iii) Convert the map scale into a statement scale? **(2 marks)**

(iv) Give **two** ways through which relief has been represented in the area covered by the map. **(2 marks)**

(c) Draw a square 15cm by 10cm to represent the area enclosed by easting 78 and 95 and northing 60 and 70. **(1 mark)**

On it mark and label the following features.

(i) River Kerio. **(1 mark)**

(ii) Lake Kamnorok. **(1 mark)**

(iii) Seasonal swamp. **(1 mark)**

(iv Tambach Municipality **(1 mark)**

(d) (i) Describe the drainage of the area covered by the map. **(6 marks)**

(ii) Citing evidence from the map, state ***five*** functions of Tambach town. **(5 marks)**

6) (a) (i) Apart from the Rift valley, name other relief feature formed as a result of faulting.**(3mks)**

(ii) With the aid of a well labeled diagram, describe how Rift Valley may have been formed by tensional forces. **(8mks)**

(b) Explain three ways in which faulting influences drainage **system.** **(6mks)**

(c) Explain four ways in which features resulting from faulting are of significance to the economy of Kenya. **(8mks)**

7) **(a)** What is natural vegetation? **(2mks)**

(b) Name the temperate grassland found in the following countries.

i) Canada. **(1mk)**

ii) Russia **(1mk**

iii) Australia**. (1mk)**

(c) Explain how precipitation influences distribution of vegetation in an area. **(4mks)**

(d) Describe the characteristics of the Savannah vegetation region. **(6mks)**

(e) Give two reasons why Tundra region has scanty vegetation. **(2mks)**

(f) You are planning to carry out field study in a forest within your district.

i) Give four reasons why it is important to seek permission. **(4mks)**

ii) Identify four challenges you are likely to encounter during the field study. **(4mks)**

8) **(a) (i)** What is underground water? **(2mks)**

(ii) Explain how the following factors influence the presence of underground water.

(a) Amount of rainfall. **(2mks)**

(b) Vegetation cover. **(2mks)**

(c) Slope gradient. **(2mks)**

(b) (i) What is an artesian basin? **(2mks)**

(ii) State three conditions leading to the formation of artesian basi**n.** **(3mks)**

(c) (i) Identify three factors which influence the formation of Karst features. **(3mks)**

(ii) State four significance of Karst regions. **(4mks)**

(d) Your class is planning to carry out field study in a Karst landscape.

a) Give two reasons why it is important to seek permission from the school authorities. **(2mks)**

b) Identify three challenges that you are likely to encounter during field study. **(3mks)**

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

(b) Give two reasons why there are no ice sheets in East Africa. **(2mks)**

(c) Describe the formation of the following glacial features.

a) Hanging valley. **(6mks)**

b) Arête. **(6mks)**

(c) Name three erosional features found in glaciated lowland areas. **(3mks)**

(d) Explain three positive effects of glaciations in lowland areas. **(6mks)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

312/2

GEOGRAPHY

PAPER 2

TIME: 2¾ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

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

b) *Answer **ALL** the questions in **section A.***

c) *In section **B,** answer **questions 6** and any other **TWO** questions.*

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

FOR EXAMINER'S USE ONLY

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1 – 5	25	
B	6	25	
		25	
		25	
TOTAL SCORE			

SECTION A

*Answer **All** Questions In This Section.*

1. (a) Name a mineral which occurs in each one of the following places in East Africa.

i) Kwale in Kenya. **(1mk)**

ii) Geita in Tanzania **(1mk)**

iii) Kilembe in Uganda. **(1mk)**

(b) State two problems caused by dereliction of the land due to mining. **(2mks)**

2. (a) Name three main areas where tropical rain forests are found in the world. **(3mks)**

(b) State TWO factors favouring the development of soft wood forests in Kenya. **(2mks)**

3. Explain how diamonds are processes. **(5mks)**

4. Outline the importance of oil exploitation in the Middle East countries. **(5mks)**

5. Describe the characteristics of softwood forests in Canada. **(5mks)**

SECTION B

Answer Question 6 and Any Other Two Questions In This Section.

6. Study the data in the table below and answer the questions that follow.

Data showing items exported from countries A and B.

Country A		**Country B**	
Exports	**Tonnes**	**Exports**	**Tonnes**
Maize	12600	lubricating oil	2200
Coffee	9990	industrial chemicals	2100
Oil cakes	5560	fertilizers	5300
Spices	750	Vehicles	3300
		Wire products	2200
		Paper	2700
Total	**28900**	**Total**	**17,800**

(a) (i) Name the main export of each country. (**2mks)**

(ii) Calculate the percentage of the export item with the least tonnage in each country**.** **(4mks)**

(iii) Draw a divided rectangle 15cm long to represent the export items for country A. **(10mks)**

(iv) State FIVE advantages of using divided rectangles to represent statistical **data** **(5mks)**

(b) Differentiate between

(i) Primary data and secondary data **(2mks)**

(ii) Discrete data and continuous data **(2mks)**

7. (a) State FOUR ways in which minerals occur **(4mks)**

(b)Name FIVE conditions necessary for the formation of petroleum **(5mks)**

(c) Explain how the following factors influence mining.

(i) Capital **(2mks)**

(ii) Value of the mineral. **(3mks)**

(d) Describe how deep shaft mining is carried out. **(6mks)**

(e) Give FIVE uses of Soda ash. **(5mks)**

8. (a) Define the following terms;

(i) Forestry **(2mks)**

(ii) Agro-forestry **(2mks)**

(b) Explain how the following factors influence the distribution and types of natural forests.

(i) Climate **(4mks)**

(ii) Altitude **(2mks)**

(iii) Soils **(2mks)**

(c) Explain FIVE reasons why tropical rain forests are difficult to exploit. **(10mks)**

9. (a) Differentiate between human geography and economic geography. **(2mks)**

(b) Name at least FIVE human activities in Kenya. **(5mks)**

(c) Your Geography class organized a field study on wildlife at Lake Nakuru National Park.

(i) Apart from preparing a route map, identify other ways in which the class prepared for the study. **(5mks)**

(ii) Why was it necessary to prepare a route map? **(4mks)**

(iii) Identify the activities the class was involved in during the study. **(6mks)**

(iv) Give THREE methods the class used to record data. **(3mks)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

231/1

BIOLOGY

PAPER 1 (THEORY)

TIME: 2 HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

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

b) *Answer all the questions in the spaces provided.*

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

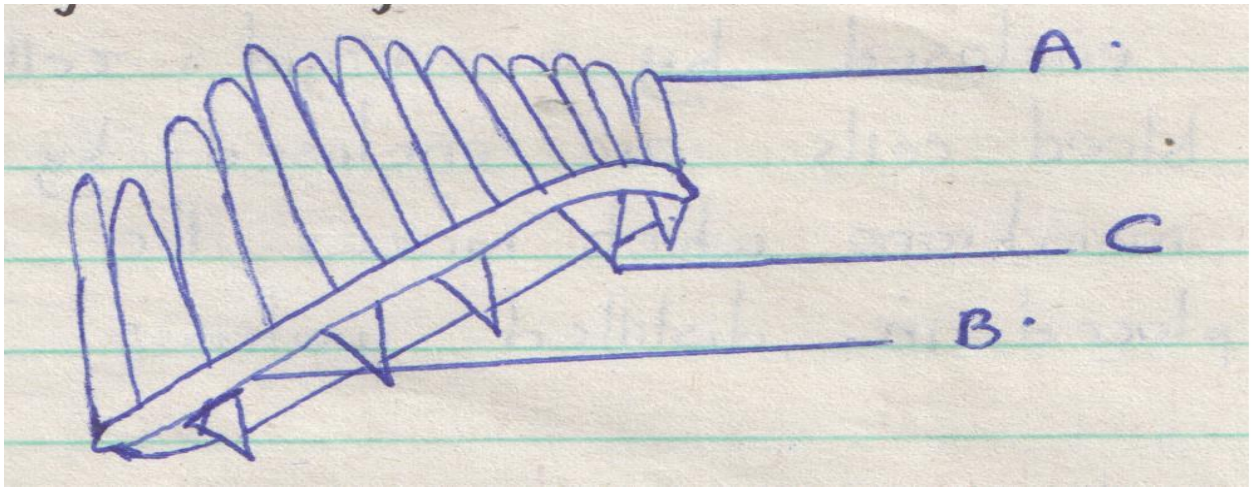
FOR EXAMINERS USE ONLY

QUESTIONS	MAXIMUM SCORES	CANDIDATE'S SCORE
1 – 31	80	

INSTRUCTIONS

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

1. The diagram below is that of a gill of a fish.



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

……

……

b) State the function of part labeled C. **(1mk)**

……

……

c) Explain how structure labeled A is adapted to its function. **(2mks)**

……

……

……

2. (a) Give the products of aerobic respiration in plants and animals**.** **(3mks)**

……

……

……

(b) Name two factors that affect the rate of respiration. **(2mks)**

……

……

3. Explain why red blood cells burst when placed in distilled water while plant cells remain intact.

(3mks)

……

……

……

……

4. Distinguish between diffusion and osmosis. **(2mks)**

……

……

……

5. A form three student came across two different types of fruits which are described as follows:

Fruit A

Has free central placentation, hard epicarp and fibres air-filled mesocarp.

Fruit B

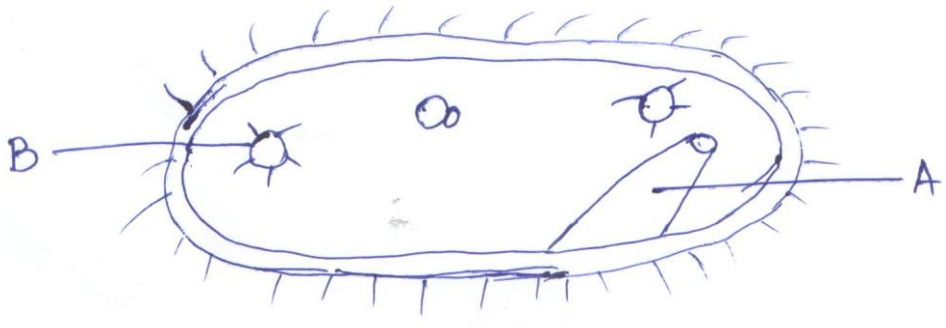
Hasaxile placentation, fleshy mesocarp and brightly colouredepicarp.

a) Suggest the possible agent of dispersal of each type of fruit. **(2mks)**

……

……

6. A student examining pond water came across a certain living organisms which he drew as shown below.



i) Identify the organism shown above. **(1mk)**

……

ii) State the kingdom of the above organism. **(1mk)**

……

iii) Name the structure labeled A. **(1mk)**

……

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

……

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

a) Follicle stimulating hormone.

……

……

b) Oestrogen.

……

……

c) Luteinizing hormone.

……

……

8. During a surgical operation, a doctor accidentally cut two blood vessels A and B. Out of blood vessel A, blood was spurting out while through blood vessel B, blood was flowing smoothly. Identify blood vessels A and B. **(2mks)**

……

……

9. What are the disadvantages of sexual reproduction? **(3mks)**

……

……

……

……

10. During cold weather, very small mammals eat more than their own weight of food per day whereas large mammals eat food which is only a small fraction of their weight. Give an explanation for this. **(3mks)**

……

……

……

……

11. State the function of the following cell organelles. **(3mks)**

a) Lysosomes.

……

b) Ribosomes.

……

c) Golgi apparatus.

……

12. Pregnancy would persist after the expiry of the fifth month of pregnancy even if the two ovaries are surgically removed from the body of female individual. Give an account for this. **(2mks)**

……

……

……

13. List two main branches of biology and for each, give a definition**.** **(2mks)**

……

……

14. What is the role of vascular bundles in plant nutrition? **(3mks)**

……

……

……

15. What do you understand by the term double fertilization in flowering plants? **(2mks)**

……

……

16. Define the following terms as used in ecology. **(3mks)**

i) Carrying capacity.

……

……

ii) Biosphere.

……

……

iii) Ecological niche.

……

……

17. Distinguish between intra-specific and inter-specific competition. **(2mks)**

……

……

……

18. (i) Name the process through which free atmospheric nitrogen is converted into nitrates. **(1mk)**

……

(ii) Name the bacteria found in root nodules of leguminous plants**.** **(1mk)**

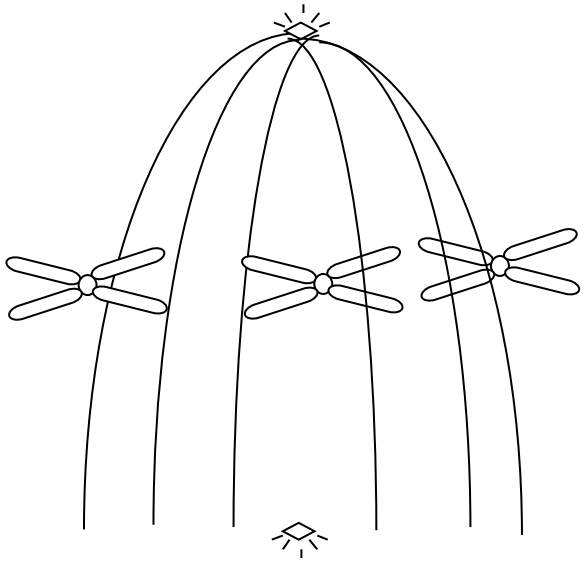
……

(iii) What is the role of bacteria named (a) above. **(1mk)**

……

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

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



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

……

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

……

……

21. (a) What is placentation? **(1mk)**

……

……

(b) Give three types of placentation. **(3mks)**

……

……

……

22. Identify four ways through which the HIV/AIDs virus is transmitted. **(4mks)**

……

……

……

……

……

23. State the mode of asexual reproduction in; **(3mks)**

a) Yeast.

b) Amoeba.

c) *Rhizopus* species.

24. (a) Name one defect of circulatory system in humans. **(1mk)**

……

(b) State three functions of blood other than transport. **(3mks)**

……

……

……

25. What do you understand by the term oxygen debt? **(2mks)**

……

……

……

26. List any two distinguishing features of class arachnida. **(2mks)**

……

……

……

27. Give the name used to refer to fruit development without fertilization. **(1mk)**

……

……

28. During which phase of meiosis does crossing over occur? **(1mk)**

……

FORM 3 ENDTERM 2 EXAMS

SERIES 1

231/2

BIOLOGY

PAPER 2 (THEORY)

TIME: 2 HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

INSTRUCTIONS TO CANDIDATES:

- *Write **your name**,and admission in the spaces provided above.*
- *This paper consists of **TWO** sections **A** and **B***
- *Answer **ALL** the questions in section **A** in the spaces provided*
- *In section **B**, answer Question 6 (Compulsory) and either Question 7 or 8.*

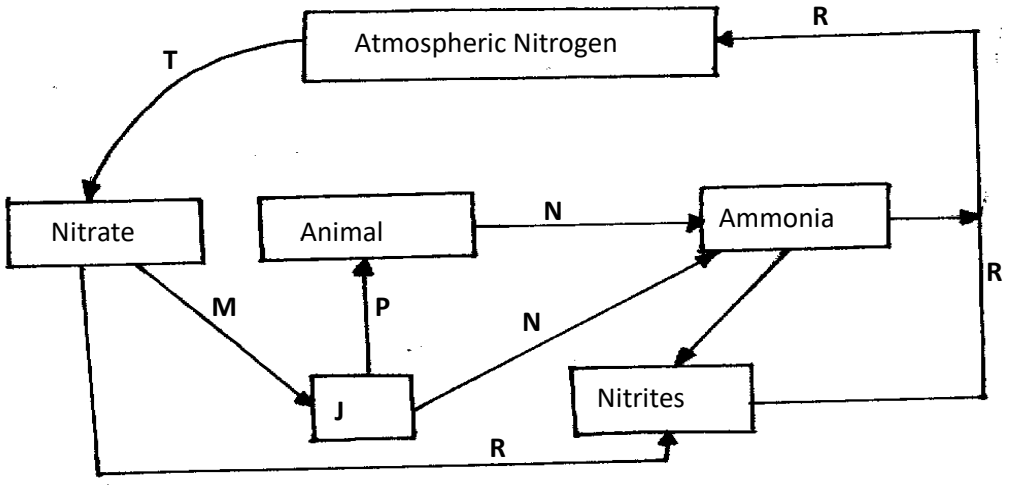
EXAMINER'S USE ONLY

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATES SCORE
	1	8	
	2	8	
	3	8	
	4	8	
	5	8	
	6	20	
	7	20	
	8	20	
TOTAL SCORE		**80**	

SECTION A

*Answer **ALL** the questions*

1. The diagram below represents a nitrogen cycle.



(a) Name the groups of organism represented by **J.** **(1mrk)**

……

(b) Name the process represented by **R,P,M** and **N.** **(4mrks)**

R: .....

P: .....

M: .....

N: .....

(c) Name **one** process represented by **T.** **(1mrk)**

……

(d) (i) Name a structure in roots involved in process **M.** **(1mrk)**

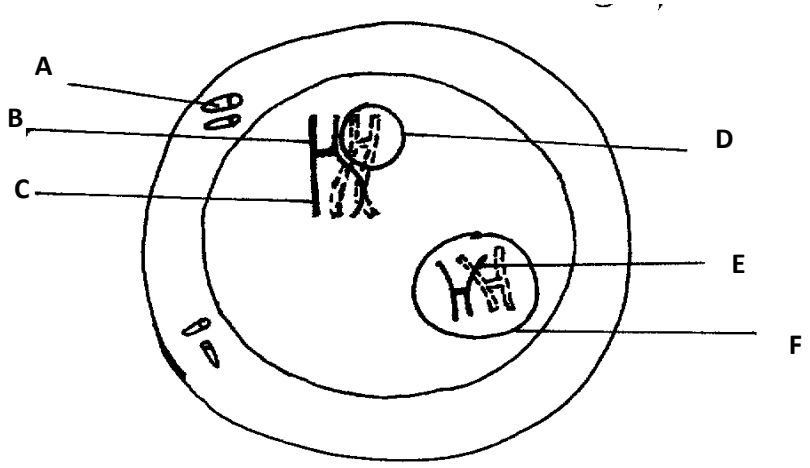
……

(ii) State **one** adaptation of the structure named in d (i) above to its function. **(1mrk)**

……

……

2. The following diagram shows a cell at a certain stage of cell division.



a) Name the type and stage of cell division. **(1mrk)**

Type.....

Stage.....

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

……

……

(ii) What is the significance of the process shown in the diagram above in relation to the behavior of chromosomes? **(1mrk)**

……

……

(c) What is the general name of organs where the above process occurs? **(1mk)**

……

(d) Name the part labeled; **(2mrks)**

C .....

F .....

(e) State the significance of part labeled **A** in relation to the process shown above **?.** **(1mrk)**

……

……

(f) Name **one** cell in plants which is haploid **(1mrk)**

……

3. In an experiment to analyze a 200cm^3 sample of air was treated with pyrogallic acid. This reduced its volume to 168cm^3. Potassium hydroxide was then added and the volume of gas reduced further to 160cm^3

(a) What was the role of pyrogallic acid? **(1mrk)**

……

(b) What was the role of potassium hydroxide? **(1mrk)**

……

(c)Calculate the percentage of oxygen and percentage of carbon (iv) oxide in the sample**.(2mks)**

(d) Suggest the likely biological source of carbon (iv)oxide gas. **(1mrk)**

……

(e) State the behavior of external intercostal muscles during exhalation. **(1mk)**

……

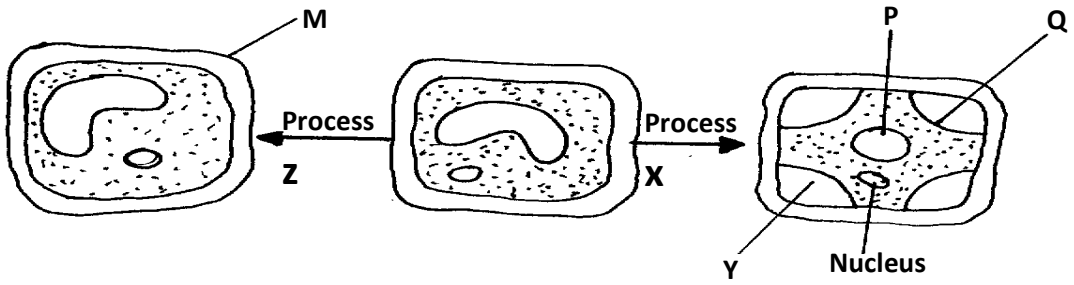
(f) Explain why smokers are more prone to respiratory tract infections than the non- smokers **(2mks)**

……

……

……

4. The diagram below represents **two** process underwent by a plant cell.



(a) Identify process **X**..... **(1mrk)**

(b) Name the state of the cell after undergoing process; **(2mrks)**

(i) X.....

(ii) Z .....

(c) Name the substance which is found in parts labelled; **(2mrks)**

(i) P.....

(ii) Y .....

(d) Name parts labelled **M** and **Q.** **(2mrks)**

M.....

Q.....

(e) Name the cell organelle which is usually referred to as " cell's kitchen". **(1mrk)**

……

5. (a) Name **two** substances transported in blood plasma. **(2mrks)**

(i) .....

(ii) .....

(b) Wanjiru is blood group **A**.

(i) Name an antibody found in her blood plasma. **(1mrk)**

……

(ii) Name an antigen found in her red blood cell. **(1mrk)**

……

(iii) Name the blood groups she can donate to; **(2mrks)**

Blood groups-

……

……

(c) What is meant by the term allergy? **(1mrk)**

……

……

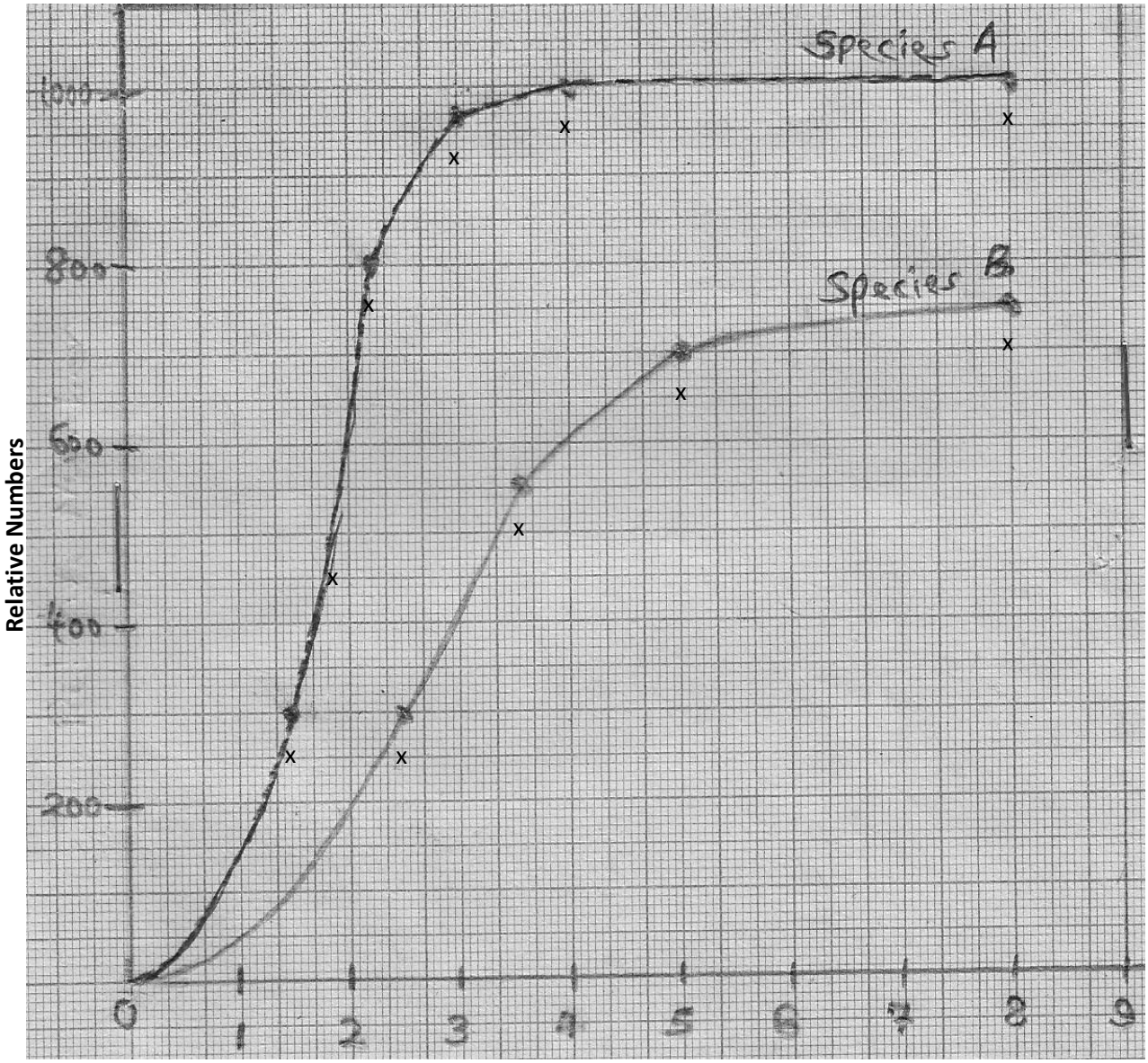
(d) Name **one** substance that can cause allergy. **(1mrk)**

……

SECTION B(40MARKS)

Answer questions 6 (Compulsory) and either question 7 or 8 in the spaces provided.

6. Two herbivorous mammal species were introduced into an ecosystem at the same time and in equal numbers. The graph below represents their populations during the first seven years. Study the graph and answer the questions that follow.



(a)(i) Which species has a better competitive ability? **(1mrk)**

……

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

……

……

(b) Account for the shape of the curve for species **A** between;

(i) One year and three years. **(3mrks)**

……

……

……

(ii) 4 years and eight years. **(3mrks)**

……

……

……

(c) A natural predator of species **A** was introduced into the ecosystem. With a reason, state how the population of each species would be affected? **(4mrks)**

……

……

……

……

(d) State **four** other biotic factors of the ecosystem which affects organisms distribution in their habitat other than the one illustrated in the above graph. **(4mrks)**

……

……

……

……

(e) Name the instruments used to measure the following;

(i) Light intensity..... **(1mrk)**

(ii) Light penetration in water..... **(1mrk)**

(iii) Speed of wind..... **(1mrk)**

(**iv)** Atmospheric pressure..... **(1mrk)**

7. **Describe** how human male reproductive system is adapted to its functions (**20 marks)**
8. **Describe** how seeds and fruits are adapted to different modes of dispersal**. (20marks)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

231/3

BIOLOGY

PAPER 3 (PRACTICAL)

TIME: 1¾ HOURS

CONFIDENTIAL

1. *10m/s of solution E (a mixture of starch and glucose in ration 1:2.*
2. *Iodine solution labelled solution F.*
3. *Benedict's solution labelled solution L.*
4. *Four test tubes in a test tube rack*
5. *Droppers (2)*
6. *Source of heat*
7. *10ml measuring cylinder*
8. *Visking tubing (8cm)*
9. *Two pieces of thread (10cm)*
10. *100ml beaker*
11. *Wash bottle with distilled water*
12. *Means of timing*
13. *Test tube holder.*

FORM 3 ENDTERM 2 EXAMS

SERIES 1

231/3

BIOLOGY

PAPER 3 (PRACTICAL)

TIME: 1¾ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

INSTRUCTION TO CANDIDATES

a) *Write your Name, Adm. No., Class and Date in the spaces provided*

b) *Answer all the questions*

c) *You are required to spend the first 15 minutes of the $1^{3}/_{4}$Hrs around for this paper reading the whole paper carefully before commencing your work*

d) *Answers must be written in the spaces provided in the question paper. Additional Pages must not be inserted.*

FOR EXAMINER'S USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1	11	
2	15	
3	14	
TOTAL SCORE	**40**	

QUESTIONS

1) You are provided with visking tubing a solution labelled E, Iodine solution labelled solution F. Benedict's solution labelled solution L, and a piece of thread.

Tie one end of the visking tubing tightly using the thread provided. With the help of a dropper put 10ml of the solution labelled E into the visking tubing. Tie the other end of the visking tubing tightly.**Ensure that there is no leakage at both ends of the visking tubing**. Wash the outside of the visking tubing with water. Place the visking tubing in a 100ml beaker. Add distilled water into the beaker to reach the level of the liquid in the visking tubing. Allow the setup to stand for 30 minutes or more.

a)Using 2ml in a test tube in each case test for the food substance in the liquid outside the visking tube using. **(3mks)**

TEST	PROCEDURE	OBSERVATION	CONCLUSION
Iodine Solution (Solution F)			
Benedict's solution (Solution L)			

B) Using 2ml in a test tube in each case test for the food substance in the contents of the visking tubing using. **(3mks)**

TEST	PROCEDURE	OBSERVATION	CONCLUSION
Iodine Solution (Solution E)			
Benedict's solution (Solution L)			

C) Account for your results in a and b above. **(4mks)**

……

……

……

……

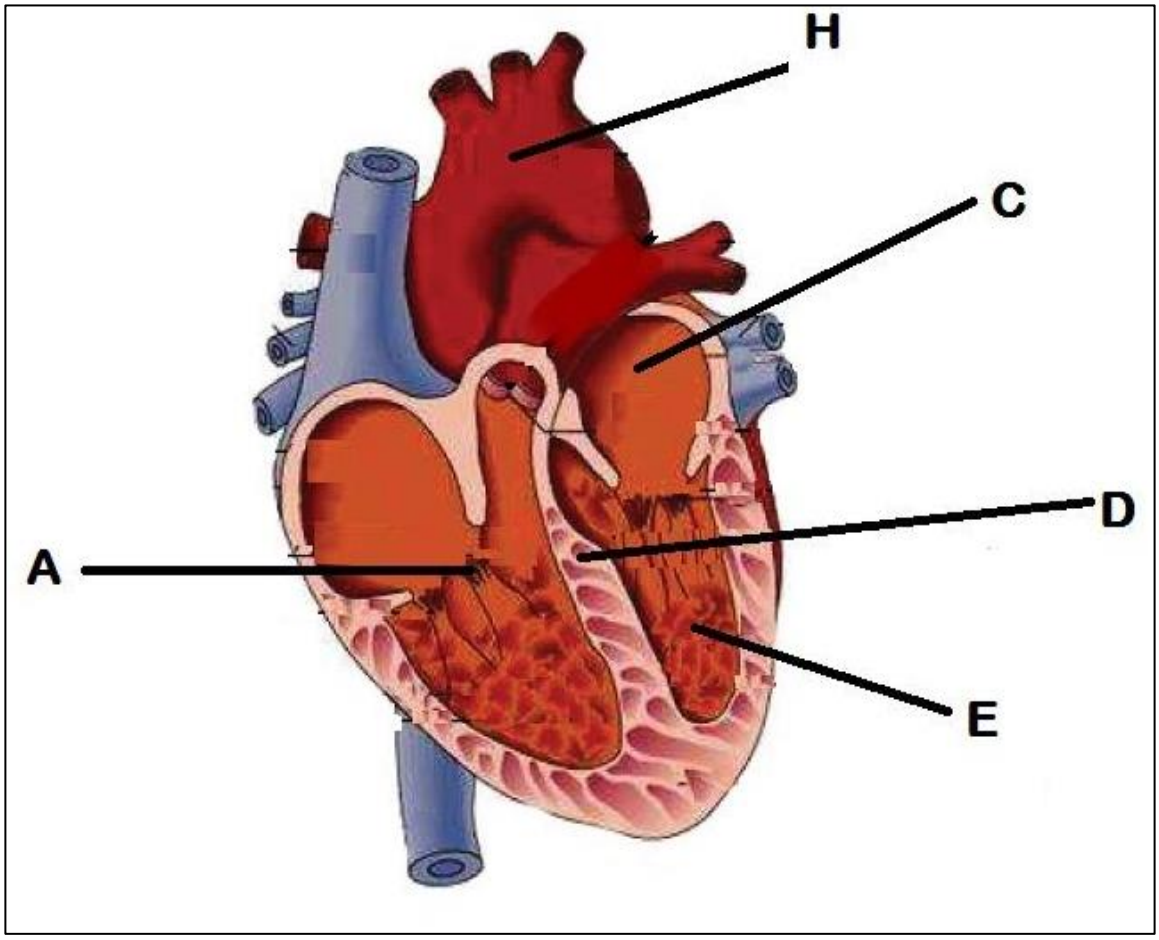
……

d)Highlight the role of the physiological process demonstrated here **(1mk)**

……

……

2) The photograph below is of a mammalian heart. Study it and answer the questions that follow



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

……

……

b) State the role of part D. **(1mk)**

……

c) Account for the structural differences between the parts marked C and E. **(3mks)**

……

……

……

……

……

d) Name:

b) Valve A **(1mk)**

c) State it's function. **(1mk)**

e) Name the part marked C. **(1mk)**

f) i) Name the blood vessel marked H. **(1mk)**

ii)State two functional differences between the arteries and the veins. **(2mks)**

……

……

……

……

g)State 3 structural adaptations of the heart **(3mks)**

……

……

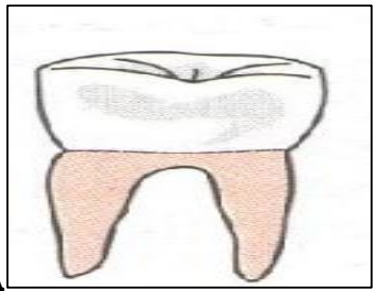
……

……

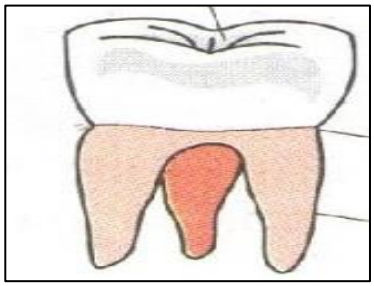
……

3) Study the following illustration of various mammalian teeth and answer the questions that follow.

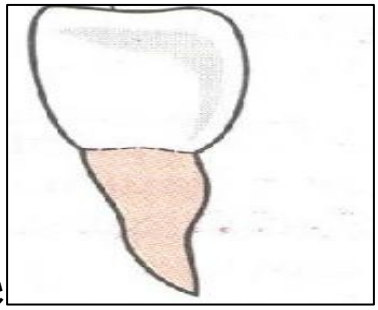
A



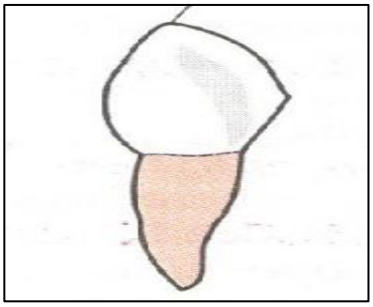
B



C



D



a) Identify the teeth. **(4mks)**

A

B

C

D

b) Complete the table below. **(8mks)**

Tooth	Function	Adaptation
A		
B		

C		
D		

C) Write the dental formula of an adult human being. **(1mk)**

……

……

c) Distinguish between heterodont and homodont animals. **(1mk)**

……

……

……

……

FORM 3 ENDTERM 2 EXAMS

SERIES 1

233/1

CHEMISTRY

PAPER 1 (THEORY)

TIME: 2 HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

233/1

CHEMISTRY

PAPER 1

Time: 2 hours

INSTRUCTIONS TO THE CANDIDATES:-

i) *Write your **name** and admission **number** on the spaces provided.*

ii) *Answer **all** the questions in the spaces provided.*

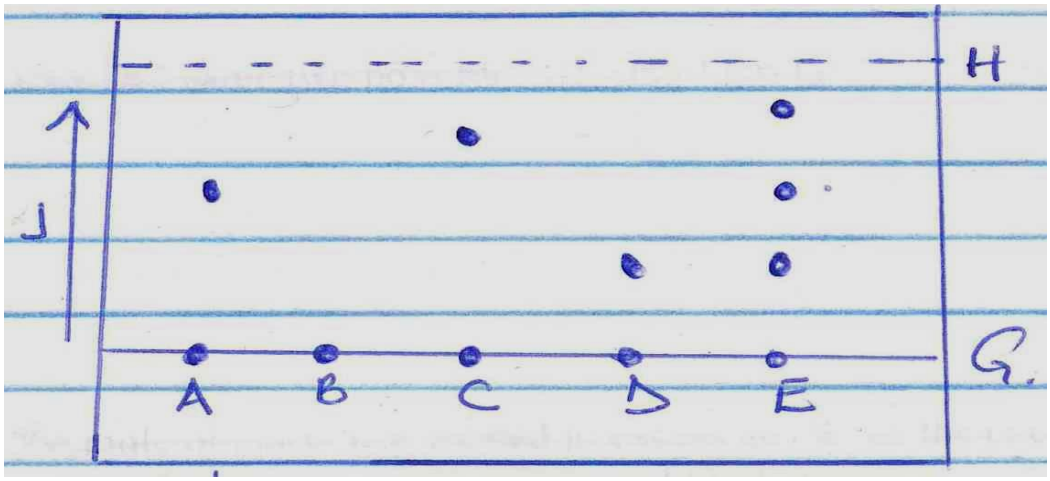
iii) *Mathematical tables and electronic calculators may be used*

iv) *All working **MUST** be clearly shown where necessary.*

Question	Maximum score	Candidate's score
1-30	80	

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

1. The diagram below shows Chromatograms for five different dyes.



a) Name one condition required to separate the chromatograms present in a dye. **(1 mk)**

……

b) What is meant by the solvent front? . **(1 mk)**

……

……

c) Which chromatograms are present in dye E. **(1 mk)**

……

d) Name two industrial applications of chromatography. **(2 mks)**

……

……

……

2. An element Y has the electronic configuration 2.8.5

a) Identify its period _____ **(1mk)**

b) Write a formula of the most stable anion formed when U ionizes. **(1mk)**

……

……

c) Explain the differences between the atomic radius of element Y and its ionic radius**.** **(2mks)**

……

……

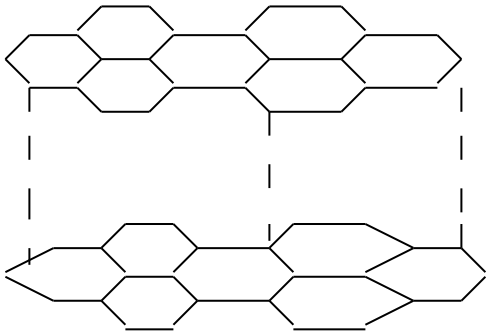
……

3. a) What is meant by allotropy**?** **(1 mark)**

……

……

b) The diagram below shows the structure of one of the allotropes of carbon



a. Identify the **allotrope** **($\frac{1}{2}$ mk)**

……

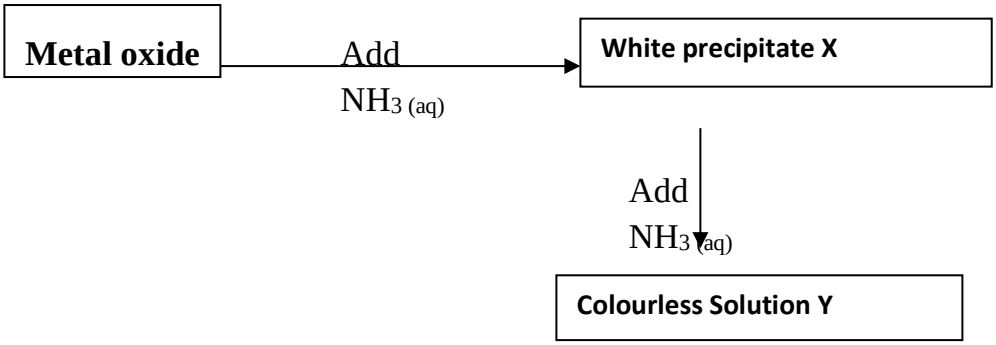
b. State **one** property of the above allotrope and explain how it is related to its structure. **(1½mk)**

……

……

……

4. Study the flow chart below and answer the questions that follow.



a) Identify the metal oxide. **(1mk)**

……

b) Write an ionic equation leading to the formation of the white precipitate X. **(1mk)**

……

c) Give the formula of the ions responsible for the colourless solution Y. **(1mk)**

……

……

5. a) Apart from their location, state any two differences between a proton and an electron. **(2 mks)**

……

……

……

……

(b) Protons and neutrons are found in the nucleus of an atom. State two important roles played by of neutrons in the nucleus of an atom. **(2 mks)**

……

……

……

6. Give equations to show the reactions that take place when;

a) Iron reacts with steam. **(1 mark)**

……

……

(b) Name and give one industrial use of the gas produced in the reactions in (i) above. **(2mks)**

Name:

Use:

7. $20cm^3$ of an unknown gas Q takes 12.6 seconds to pass through small orifice.$10cm^3$ of oxygen gas takes 11.2 seconds to diffuse through the same orifice under the same conditions of temperature and pressure. Calculate the molecular mass of unknown gas Q (O=16). **(3mks)**

8. A compound of carbon, hydrogen and oxygen contains 71.12g by mass of oxygen, 2.2g hydrogen and the rest is carbon. It has relative molecular mass of 90.

a) Determine the empirical formula of the compound. **(3mks)**

b) Determine the molecular formula of the compound. **(2mks)**

9. Study the information in the table and answer questions that follow:

Isotope	Relative abundance %
^{69} R_1	61.3
^{71} R_2	38.7

(a) Determine the number of neutrons of R_1 **(1mk)**

(b) Calculate the relative atomic mass of element **R**. **(2mks)**

10. (a) Identify the type of bond formed in (i) and (ii). **(1mks)**



c) (II)

(I)……..

(II)……..

b) Use dot (.) and cross (x) diagram to draw the structure of Sulphur (IV) oxide. **(2marks)**

11. Complete the table below. **(3 mks)**

Element	Latin Name	Symbol
_____	Plumbum	_____
Copper	_____	Cu
Potassium	_____	K
Tin		Sn

12. (a) State Gay Lussac's law. **(1mk)**

……

……

b) What volume of oxygen will be required for complete combustion of 100cm^3 of carbon (II) oxide. What is the volume of the product formed (All volumes at same temperature and pressure). **(2mks)**

13. If 25.0cm^3 of 0.1 M H_2SO_4 solution neutralized a solution containing 1.06g of sodium carbonate in 250cm^3 of solution, calculate the molarity and volume of the sodium carbonate solution used. **(3mks)**

14. (i) State Charles' law. **(1mk)**

(ii) The capacity of a balloon to hold a gas at 5^oC is $1dm^3$ before it bursts due to expansions show whether it will burst or not at 35^oC at constant pressure. **(2mks)**

15. What is the colour of the following? **(4mks)**

Metal oxide	Colour when hot	Colour when cold
Zinc oxide	(i)	(ii)
Lead (II) oxide	(iii)	(iv)

16. Form two students from Anestar Premier High School reacted three elements as shown in the table below

Element	Reaction with Oxygen	Reaction with water
X	Formed acidic oxide	No reaction
Y	Formed basic oxide	Formed soluble hydroxide gave off hydrogen gas
Z	Formed acidic oxide	Dissolved to form an acidic solution

Which element (s) is likely to be: **(3mks)**

i) Non-metal (s)

ii) Metal (s)

iii) Insoluble in water

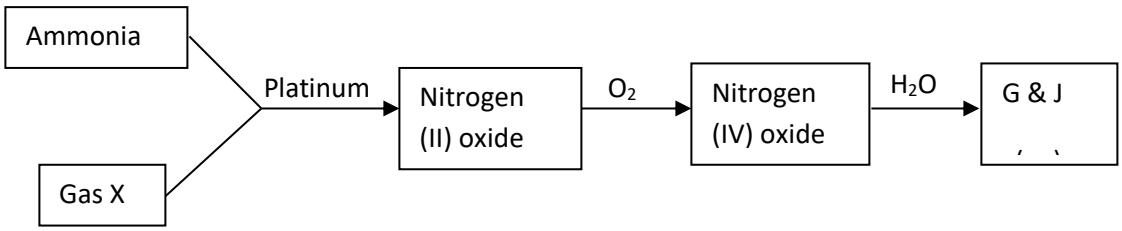
17. State the function of the following parts of a Bunsen burner **(3mks)**

a) Air hole

b) Collar

c) Base

18. Study the flow chart below and answer the questions that follow

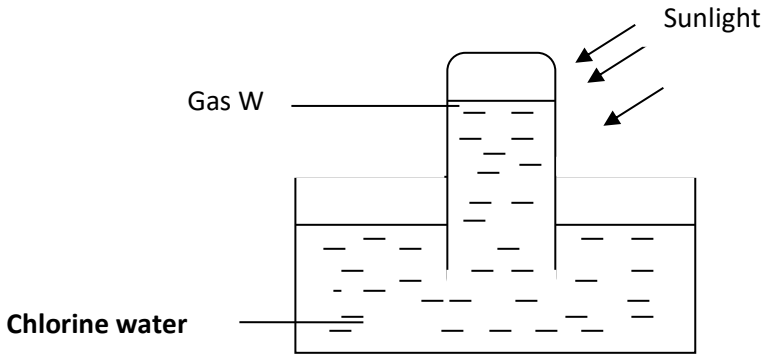


a) Identify gas X **(1mk)**

b) Write an equation for the reaction between ammonia and gas X **(1mk)**

c) Write an equation to show the formation of G and J **(1mk)**

19. The diagram below shows the effect of sunlight on chlorine water



a) Identify gas W **(1mk)**

……

……

b) Write an equation to show the formation of gas W **(1mk)**

……

c) What compounds are present in chlorine water? **(1mk)**

……

……

d) Which compound is left in the beaker after complete formation of gas W? **(1mk)**

……

……

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

Element	Atomic number	Atomic radius	Ionization energy
K	3	0.089	1800
V	11	0.136	1450
T	19	0.174	1150

a) Define the term '**ionization energy**' **(1mk)**

……

……

b) Explain the trend in the ionization energy from element K to T **(2mks)**

……

……

……

c) Compare the trend in the melting and boiling points of elements K **and T.** **(2mks)**

……

……

……

21. Explain using chemical means how you would differentiate between carbon (II) oxide and carbon (IV) oxide. **(2mks)**

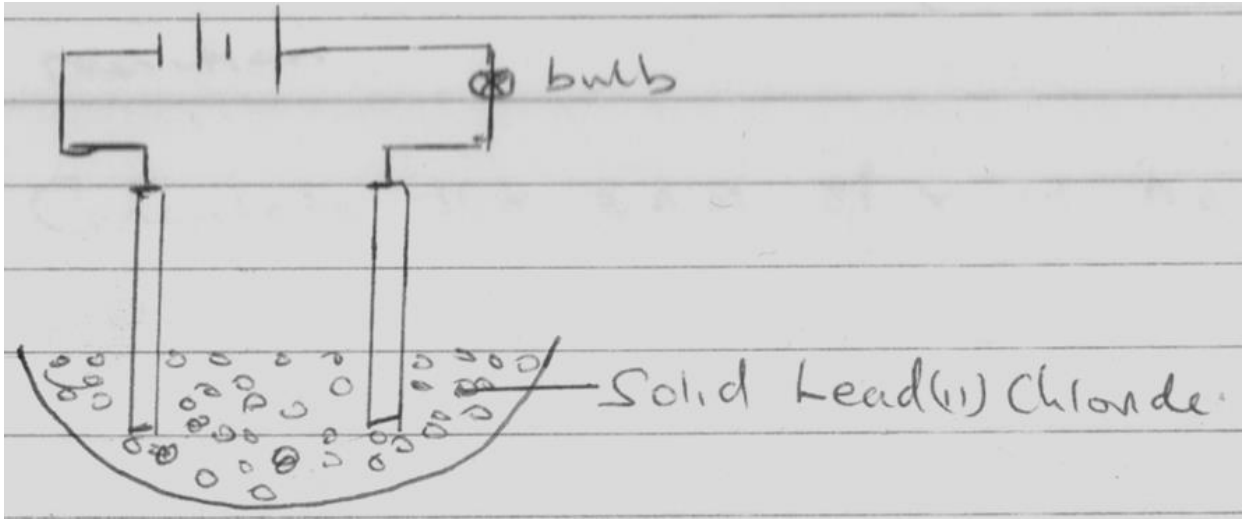
……

……

……

……

22. The following diagram shows the effect of electric current on lead (II) Chloride.



a) When the circuit was completed no current flowed. Explain why. **(1mk)**

……

……

……

b) When lead (II) Chloride was heated to about 300^0C, it melted and there was light on the bulb. State and explain the observation made at the anode. **(2mks)**

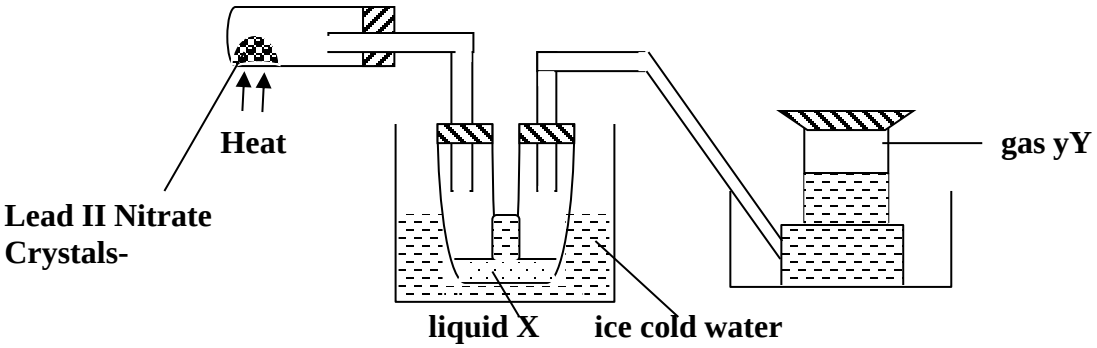
……

……

……

……

23. The set-up below shows the products formed when solid lead (ii) nitrate is heated.



a) Identify:

(i) Liquid **X** …… **(1 mark)**

(ii) Gas Y…… **(1 mark)**

b) When lead (ii) Nitrate crystals are heated, they decrepitate and decompose, what is meant by the term decrepitating**?** **(1 mark)**

……

……

24. Calculate the number of Al^{3+} ions released when $30cm^3$ of 0.1M of Aluminium Sulphate is dissolved in water. ($L = 6.024 \times 10^{23}$). **(3mks)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

233/2

CHEMISTRY

PAPER 2 (THEORY)

TIME: 2 HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

1. Write your name and admission number in the spaces provided above.
2. *Sign and write the date of examination in the spaces provided.*
3. *ANSWER ALL QUESTIONS IN THE SPACES PROVIDED.*
4. *All working must be clearly shown where necessary.*
5. *Mathematical tables or silent electronic calculators may be used.*

QUESTIONS	MAX SCORE	STUDENT SCORE
1	14	
2	14	
3	14	
4	12	
5	13	
6	13	
TOTAL	80	

Answer All Questions In The Spaces Provided.

1) Hydrogen can be prepared by reacting zinc with dilute hydrochloric acid.

a) Write an equation for the reaction. **(1mk)**

……

b) Name an appropriate drying agent for hydrogen gas. **(1mk)**

……

c) Explain why copper metal cannot be used to prepare hydrogen gas. **(2mks)**

……

……

……

d) Hydrogen burns in oxygen to form an oxide.

(i) Write an equation for the reaction. **(1mk)**

……

(ii) State **two** precautions that must be taken before the combustion begins and at the end of the combustion. **(2mks)**

……

……

……

e) Give **two** uses of hydrogen gas. **(2mks)**

……

……

f) When zinc is heated to redness in a current of steam, hydrogen gas is obtained. Write an equation for the reaction. **(1mk)**

……

……

g) Element **Q** reacts with dilute acids but not with cold water. Element **R** does not react with dilute acids. Elements **S** displaces element **P** from its oxide. **P** reacts with cold water. Arrange the four elements in order of their reactivity, starting with the most reactive. **(1mk)**

……

……

2) (I) The number of protons, neutrons and electrons in atoms **A** to **F** are given in the table below the letters do not represent the actual symbol of the elements:-

Atoms	Protons	Neutrons	Electrons
A	3	4	2
B	9	10	10
C	12	12	12
D	17	18	17
E	17	20	17
F	18	22	18

Choose from the table the letters that represent:

(i) An atom of a metal**.....** **(1mk)**

(ii) A neutral atom of a non-metal **.....** **(1mk)**

(iii) An atom of a noble gas **.....** **(1mk)**

(iv) A pair of isotopes **.....** **(1mk)**

(v) A cation **.....** **(1mk)**

(vi) Anion **……...** **(1mk)**

(II) The grid below shows a part of the periodic table. The letters do not represent the actual symbols. Use it to answer the questions that follow:-

C								T
	K					U		
X	Y		M			Q	W	
J								Z

i) How do the atomic radius of element

(i) **X** and **M** compare. Explain. **(2mks**

……

……

……

(ii) U and Q. Explain **(2mks)**

……

……

……

ii) Which letter represent the most reactive metal. Explain. **(2mks)**

……

……

……

iii) (i) Using crosses (**X**) to represent electrons, draw the atomic structure of element **Q** (**1mk)**

(ii) State the period and the group to which element **Q** belong **(2mks)**

Group **……**

Period **……**

(d) (i) The ionic configuration of element **G** is 2.8 **G** forms an ion of the type G^{-1}.

Indicate on the grid, the position of element **G.** **(1mk)**

(ii) To which chemical family does element **G** belong? **(1mk)**

……

(iii) State **one** use of element **U** **(1mk)**

……

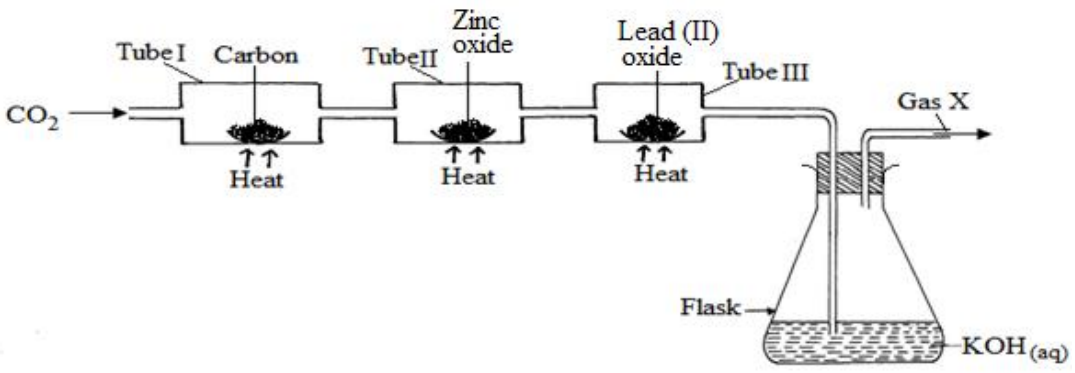
……

(iv) What is the nature of the compound formed between **K** and **U** **(1mk)**

……

……

3) Study the set-up below and answer the questions that follow:



4) (i) Name Gas **X** …… **(1mk)**

(ii) State the effect of releasing gas **X** to the environment **(1mk)**

……

……

5) Write down equations for the reactions taking place in;

(i) Tube **I** **(1mk)**

……

(ii) Tube **II** **(1mk)**

……

(iii) Flask **(1mk)**

……

6) State the observation made in tube **III** **(1mk)**

……

……

7) Write down an equation for the reaction which could be used to generate Carbon (IV) Oxide for the above set up **(1mk)**

……

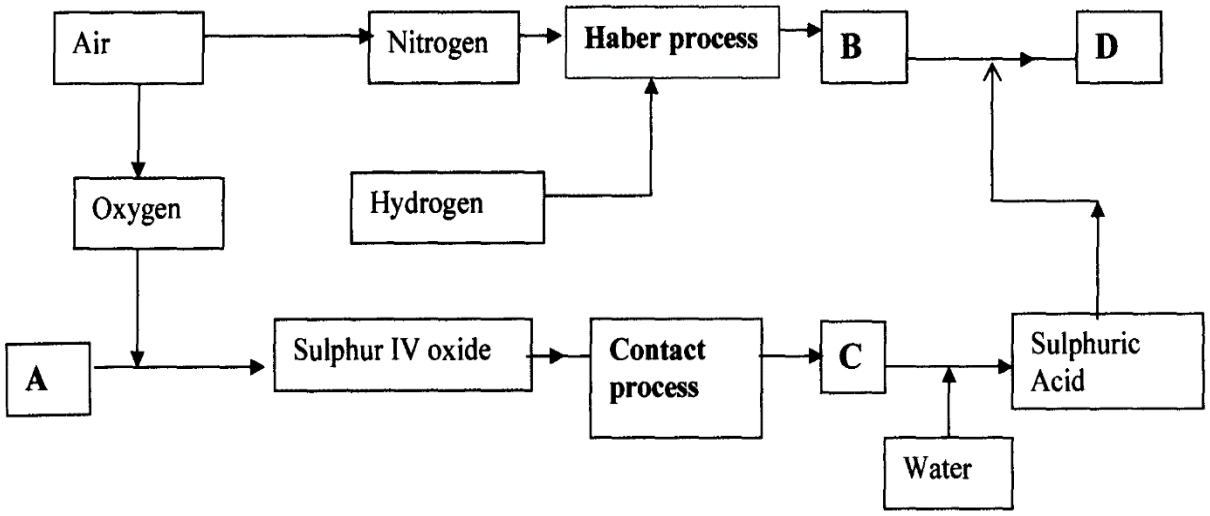
……

(e) Name the reagents used to generate gas **X** in the laboratory **(1mk)**

……

(f) Complete the diagram above to show how excess gas **X** can be collected **(1mk)**

4) The flow chart below illustrates two industrial processes, **Haber** process and the **Contact** process:



(a) (i) Give the name of the process by which air is separated into oxygen and nitrogen **(1mk)**

……

……

Apart from oxygen and nitrogen gases produced from process **(a)(i)** name **one** other gas produced **(1mk)**

……

……

(b) Name the substances represented by the letters **A, B, C** and **D** **(4mks)**

(i) A ……..

(ii) B ……..

(iii) C …….

(iv) D …….

(c) Name the catalysts used in:

(i) Haber Process **……** **(1mk)**

(ii) Contact Process **……..** **(1mk)**

(d) Explain the role of the catalysts in both the Haber and the Contact processes **(1mk)**

……

……

(e) Write a chemical equation for the formation of compound **B** **(1mk)**

……

(f) Calculate the percentage by mass of the nitrogen present in compound **D** **(2 mks)**

(g) Give **one** major use of compound **D** **(1mk)**

……

……

5) (a) Two reagents that can be used to prepare chlorine gas are manganese (IV) oxide and concentrated hydrochloric acid.

(i) Write an equation for the reaction **(1mk)**

……

(ii) Give the formula of another reagent that can be reacted with concentrated hydrochloric acid to produce chlorine gas **(1mk)**

……

(iii) Describe how the chlorine gas could be dried and collected in the laboratory **(2 mks)**

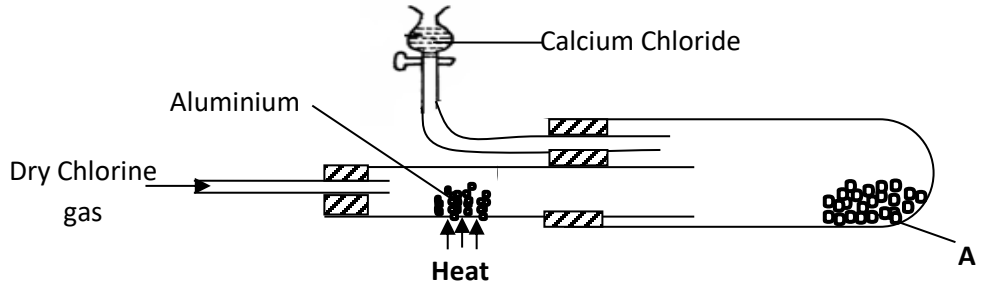
……

……

……

……

(b) In an experiment, dry chlorine gas was reacted with aluminium as shown in the diagram below



(i) Name substance **A** **(1mk)**

……

(ii) Write an equation for the reaction that took place in the combustion tube **(1mk)**

……

(iii) State the function of the calcium chloride in the set-up above **(1mk)**

……

……

6) (a) Sulphur occurs naturally in two different forms called allotropes;

i) What are allotropes **(1mk)**

……

……

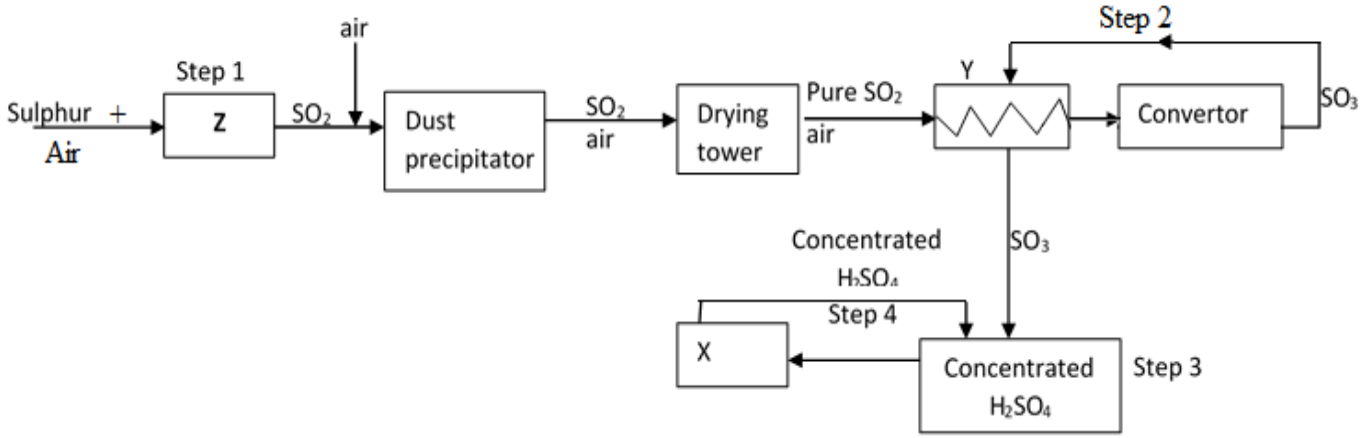
ii) The two allotropes of sulphur are stable at different temperatures, as shown in the equations below.

Rhombic sulphur $\underset{\text{below } 95.5^{o}}{\overset{\text{above } 95.5^{o}}{\rightleftharpoons}}$ monoclinic sulphur

Give the name to the temperature 95.5ºC **(1mk)**

……

b) below is a flow diagram for the contact process for manufacture of sulphuric acid(VI)



iv) Give the name of the chambers labelled **(3mks)**

Z ……

X ……

Y ……

ii) State the **three** conditions in the converter **(1mks)**

……

……

……

iii) Explain why the gases are passed though:

The dust precipitator and drying tower **(1mk)**

……

……

II. The chamber labeled **Y** **(1mk)**

……

……

(iv) Write the balanced equations for the reactions in :

Step 2 **(1mk)**

……

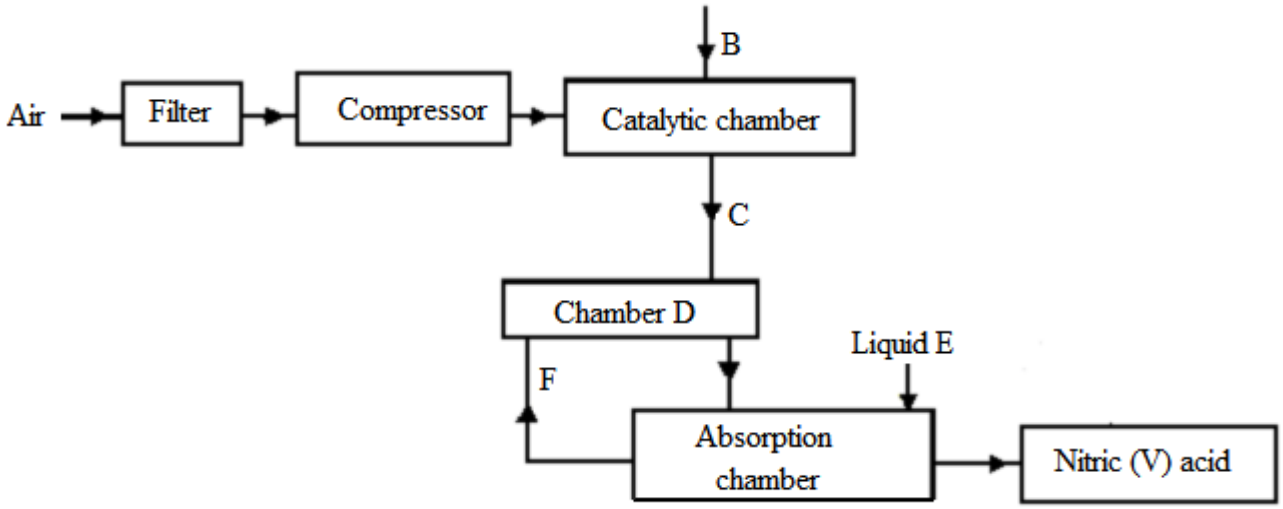
Step 3 **(1mk)**

……

Step 4 **(1mk)**

……

7) The following flow chart shows the industrial manufacture of Nitric (V) acid.



a) Identify substance **B, C, E** and **F**. **(4mks)**

a) B …….

b) C …….

c) E …….

d) F ……..

b) Describe what happens in the catalytic chamber. **(2mks**

……

……

……

c) State what takes place in chamber **D.** **(1mk)**

……

……

d) 60 – 65% nitric (V) acid is produced in the absorption chamber. Describe how the acid can be concentrated. **(2mks)**

……

……

……

e) State why nitric (V) acid is stored in dark bottles. **(1mk)**

……

……

f) Copper reacts with nitric (V) acid and not hydrochloric acid. Explain. **(1mk)**

……

……

FORM 3 ENDTERM 2 EXAMS

SERIES 1

233/3

CHEMISTRY

PAPER 3 (PRACTICAL)

TIME: 2¼ HOURS

CONFIDENTIAL

a) *About 80cm^3 of solution K*
b) *About 60cm^3 of solution M*
c) *Solid X*
d) *Burette (50.0cm^3)*
e) *Pipette (25.0cm^3) and a pipette filler*
f) *250cm^3 volumetric flask*
g) *At least two conical flasks*
h) *1 label*
i) *Tile, funnel, stand clamp and boss*
j) *Distilled water*
k) *About 8 test tubes*
l) *Metallic spatula*
m) *Two boiling tubes*
n) *pH chart*
o) *2cm length magnesium ribbon(cleaned)*
p) *2 wooden splints*
q) *½ spatula of sodium hydrogen carbonate*
r) *One red and one blue litmus papers*
s) *Test tube holder*
t) *½ spatula of the solids below*
A – Na_2SO_4
B – Na_2CO_3
C- Zn $(NO_3)_2$
u) *Solution F – 10cm^3 1M HO*

Access to:

e) *Means of heating*
f) *Methyl orange indicator*
g) *2M ammonia solution*
h) *0.5M HCl*
i) *Universal indicator*

NB:

a) Solid X is 1.0g of accurately weighed sodium carbonate

b) Solution M is made by diluting 85cm^3 of dilute hydrochloric acid using distilled water to a litre of solution.

c) Solution K is made by dissolving 5.6g of sodium hydroxide pellets to a litre of solution.

FORM 3 ENDTERM 2 EXAMS

SERIES 1

233/3

CHEMISTRY

PAPER 3 (PRACTICAL)

TIME: 2¼ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTRUCTIONS:

i) *Write your name, admission number and class*

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

iii) *Spend the first 15 minutes of the 2 ¼ hours to read the questions paper and ensure you have all the chemicals and apparatus that you may need.*

iv) *All working must be clearly be shown where necessary*

v) *Mathematical tables and silent calculators may be used*

vi) *Answer all the questions in English language*

For examiner's use only

Questions	Maximum score	Candidates score
1	20	
2	20	
Total	40	

1) You are provided with the following reagents.

a) $60cm^3$ of solution M which is IM hydrochloric acid

b) About $80cm^3$ sodium hydroxide solution K made by dissolving 5.6g of sodium hydroxide into $200cm^3$ of distilled water and diluting it to make $1dm^3$ of the solution K.

c) Anhydrous sodium carbonate solid X of unknown mass.

d) Methyl orange indicator

You are required to determine the mass of solid X in grams using the procedure below.

Procedure:

Place all the solid X into a $250cm^3$ volumetric flask provided. Use your burette to transfer $50cm^3$ of solution M into the $250cm^3$ volumetric flask containing solid X and allow the reaction to take place until the effervescence stops. Add the distilled water using the wash bottle to fill to the mark and label the resulting solution N. Pipette $25.0cm^3$ of solution K into a $250.0cm^3$ conical flask and add 2 to 3 drops of methyl orange indicator. Swirl the contents. Rinse your burette with distilled water and fill it with solution N.

Titrate solution K with N until a colour change just occurs. Repeat the titrations to complete the table below.

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

(3mks)

a) Calculate the average volume of solution N used **(1mk)**

b) Calculate the number of moles of:

i) Solution K that reacted in the experiment above **(Na=23, H=1, O=16)** **(3mks)**

ii) Solution N that reacted in the above experiment **(2mks)**

iii) Solution N in $250cm^3$ **(2mk)**

iv) $50cm^3$ of solution M before reaction with solid X **(2mks)**

c) Hence or otherwise calculate the number of moles of:

a) Hydrochloric acid which reacted with solid **X** **(2mks)**

b) Solid X which reacted in the experiment **(2mks)**

d) Calculate the mass of solid X which was reacted above. **(3mks) (Na=23, C=12, O=16)**

2) Carry out the tests on the substances given and record your observations and inferences in the space provided.

a) i) Put half of solid A in a boiling tube. Add about $3cm^3$ of distilled water shake and retain the solution.

Observation	**Inferences**
(1/2 mk)	**(1/2 mk)**

ii) To the solution above, add a few drops of ammonia solution then add in excess.

Observation	Inferences
(1mk)	**(1mk)**

c) Add the remaining half of solid A in a test tube and add about $3cm^3$ of water and dissolve. Dip a glass rod in the solution and burn the end dipped on a non-luminous flame.

Observation	Inferences
(1/2 mk)	**(1/2 mk)**

b) i) Put ½ of solid B in a test tube and add about $1cm^3$ of distilled water.

Observation	Inferences
(1mk)	**(1mk)**

ii) Put the remaining solid in a test tube and add about $1cm^3$ of dilute hydrochloric acid

Observation	Inferences
(1mk)	**(1mk)**

c) i) Put ½ of solid C in a test tube, heat gently then strongly observing the colour changes in the solid when heating and after cooling. Test any gas produced with wet litmus paper and a glowing splint.

Observation	Inferences
(3mks)	**(1mk)**

ii) Put the remaining solid C in a test tube and add about $2cm^3$ of distilled water, shake well add ammonia solution dropwise then in excess.

Observation	Inferences
(1mk)	**(1mk)**

d) Divide solution F into 3 portions.

a) Test the pH of the first portion with universal indicator

Observation	Inferences
(1mk)	**(1mk)**

b) In the second portion drop a piece of magnesium ribbon and test for any gas produced with burning splint.

Observation	Inferences
(1mk)	**(1mk)**

c) To the third portion add a ¼ spatula of sodium hydrogen carbonate.

Observation	Inferences
(1mk)	**(1mk)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

232/1

PHYSICS

PAPER 1 (THEORY)

TIME: 2 HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTRUCTIONS:

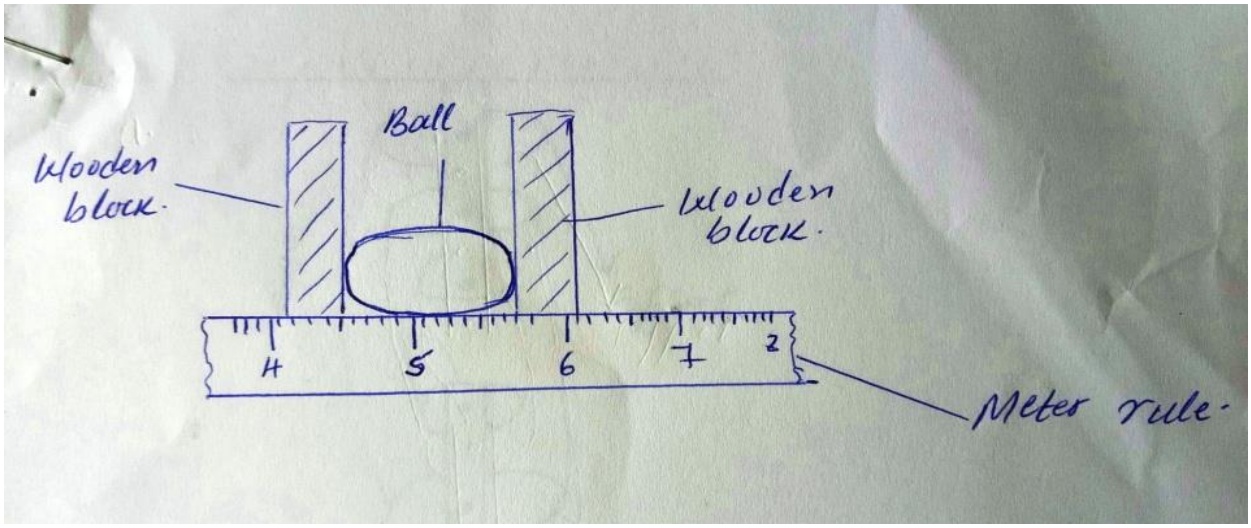
- *Write your name, Adm no., class, signature and date of examination in the spaces provided at the top of the page.*
- *Answer all the questions in the spaces provided after each question.*
- *All numerical answers should be expressed in decimal notations.*
- *You may use electronic calculators and tables.*

QUESTIONS	MARKS

Answer all questions in this section in the spaces provided.

For Marking Schemes Contact 0746-222-000 / 0753-222-000

1) The figure below shows a spherical ball placed between 2 wooden blocks and a meter rule.



What is the volume of the ball? **(3 mks)**

2. A solid weighs 16.5N on the surface of the moon. The force of gravity on the moon is 1.7N/kg. Determine the mass of the solid. **(2 mks)**

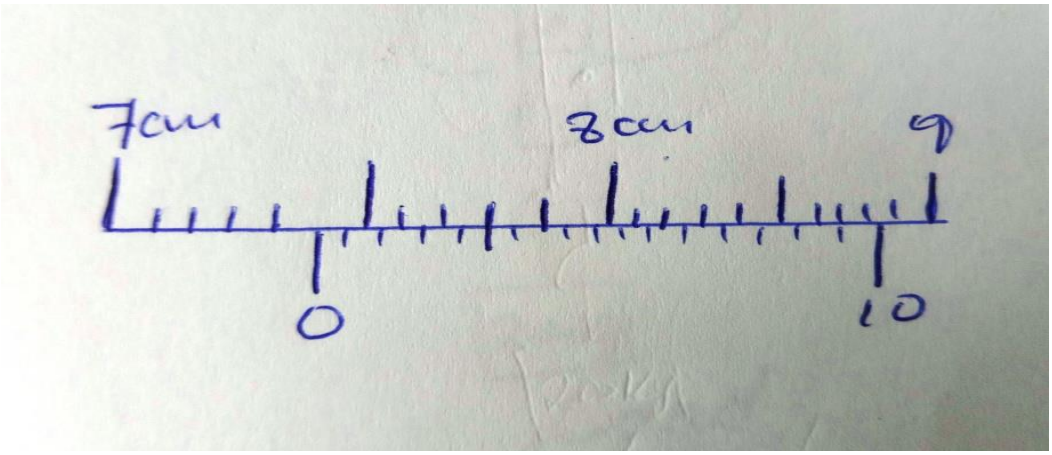
3. $30cm^3$ of a liquid X was added to $70cm^3$ of water and the resulting mixture had a volume slightly less than $100cm^3$, explain the observation. **(2 mks)**

4. **Explain** how heat loss by;

(i) Radiation is minimised in a vacuum flask. **(1 mk)**

(ii) Conduction is minimized in a vacuum flask. **(1 mk)**

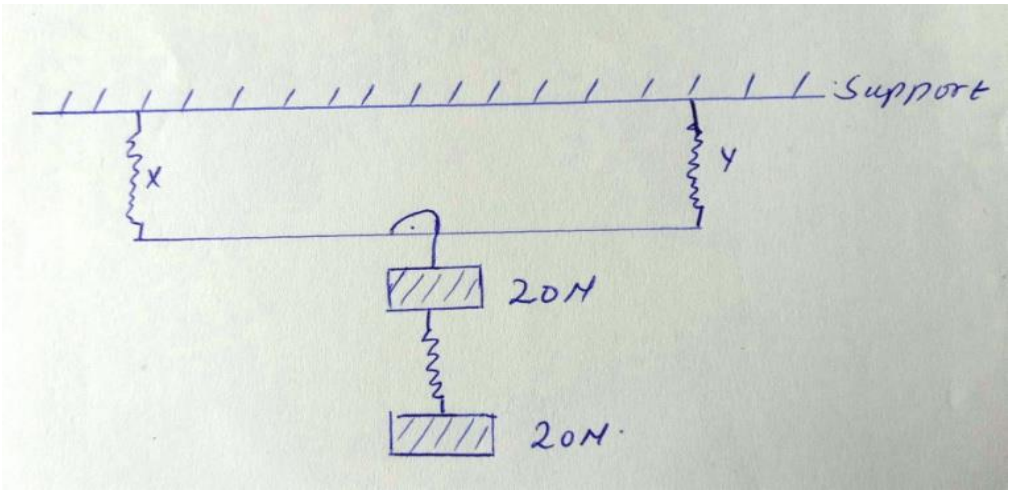
5. The figure below shows part of a scale of vernier caliper. Given that the device has a zero error of –0.02 and has been used to measure the diameter of a ball.



What is the radius of the ball? **(2 mks)**

6. A pipe of radius 6mm is connected to another pipe of radius 9mm. If water flows in the wider pipe at 2m/s, what is the speed in the narrower pipe? **(3 mks)**

7. The springs below are identical and have negligible weight. The extension produced on the system of springs is 20cm.



Determine the constant of each spring. **(4 mks)**

8. An air bubble of volume 0.5cm3 when released from the bottom of a lake rises to the surface of the lake.

(i) Explain why the bubble rises. **(2 mks)**

(ii) Calculate the volume of the bubble at the surface of the lake given that the lake is 92.7m deep and the atmospheric pressure is equivalent to 10.3m of water pressure. **(4 mks)**

(b) What assumption have you made in arriving at your answer? **(2 mks)**

9. A fixed mass of gas at constant pressure has a volume of 600cm3 at $0^{o}C$. At what temperature will its volume be $1099cm^{3}$? **(4 mks)**

10. (a) State three uses of magnets. **(3 mks)**

(b) Define the following terms as used in Physics:-

(i) Magnetic materials. **(2 mks)**

(ii) neutral point. **(2 mks)**

11. State three conditions for a body to be in equilibrium. **(3 mks)**

12. State four practical applications of friction. **(4 mks)**

13. Use simple sketches of a cone to illustrate the three states of equilibrium and name.**(6 mks)**

14. (a) Give a reason why water is not suitable as a barometric liquid. **(3 mks)**

(b) Explain the application of (a) above. **(3 mks)**

15. Use domain theory of magnetism to explain how a magnet may lose its magnetism on heating and hammering. **(4 mks)**

16. Explain the following observations:-

(i) A boy jumping from a high table tends to spread his legs. **(1 mk)**

(ii) Convex mirrors are not preferred for use as driving mirrors. **(1 mk)**

(iii) Why convex mirrors are used as driving mirrors and in supermarkets. **(1 mk)**

17. (a) State three practical applications of c.o.g. **(3 mks)**

(b) Name two factors that affect the c.o.g of a body giving a reason for each. **(4 mks)**

18. A car travelling at a speed of $72km^{-1}$ is uniformly retarded by application of brakes and comes to rest after 8 seconds. If the car with its occupants has a mass of1250kg, calculate

a) breaking force**.** **(2mks)**

b) Work done by bringing it to rest **(2mks)**

19. A block and tackle system is used to lift a mass of 200kg. If this machine has a velocity ratio of 5 and an efficiency of 80%;

(a) Sketch a possible arrangement of the pulleys, showing how the rope is wound. **(2 mks)**

(b) Calculate the effort applied. (Take g = 10N/kg) **(2mks)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

232/2

PHYSICS

PAPER 2 (THEORY)

TIME: 2 HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTRUCTIONS:

- *Write your name, Adm no., class, signature and date of examination in the spaces provided at the top of the page.*
- *Answer all the questions in the spaces provided after each question.*
- *All numerical answers should be expressed in decimal notations.*
- *You may use electronic calculators and tables.*

QUESTIONS	MARKS

SECTION A (25MKS)

1) State two characteristics of image formed by plane mirrors. **(2mks)**

……

……

2) State two factors that affects the speed of sound air. **(2mks)**

……

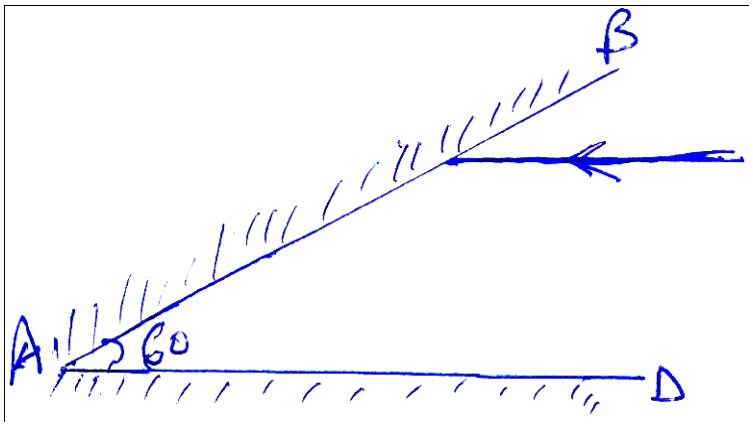
……

3) What is a virtual image? **(1mks)**

……

……

4) In the figure below, on the same diagram sketch the path of the ray after striking mirror AB. **(1mk)**



5) An object is 25m tall is at a point 8m from the pin hole camera. If the image is 8.6m from the pin hole. Calculate the size of the image. **(3mks)**

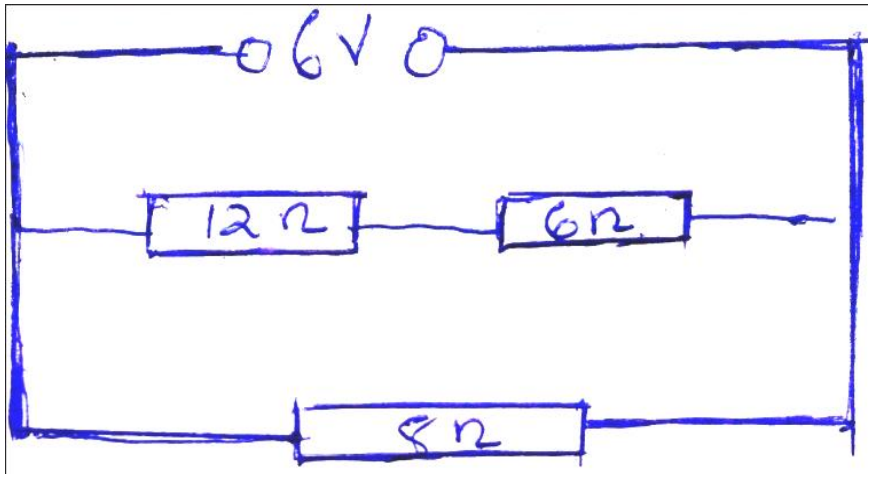
6) A curve at the button of a jar glycerin appears to be 13,2cm below the surface glycerin. Calculate the height of the Colum of glycerin in the jar. (refractive index of glycerin is 1.47.

7) State the law of electrostatics**.** **(1mk)**

……

……

8) The figure below shows resistor network.



From the figure determine

i) Total resistance**.** **(3mks)**

ii) Total current. **(3mks)**

9) Distinguish between primary and secondary cells**.** **(1mk)**

……

……

……

10) Give two uses of a gold leaf electroscope. **(2mks)**

……

……

11) Two mirrors are inclined at an angle 60^0c determine the number of images formed. **(3mks)**

……

……

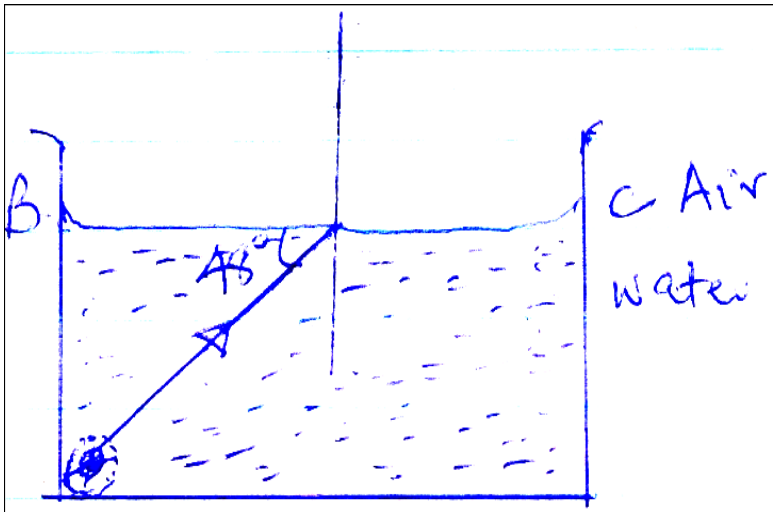
……

……

……

SECTION B (55MKS)

12) The figure below shows a transparent water tank containing water. An electric lamp surrounded by a shield with a narrow slit is fixed at corner A of the tank. A light ray from the slit shines on the water surface BC at an angle of 48^0 as shown. Refractive index of water is $^4/_3$



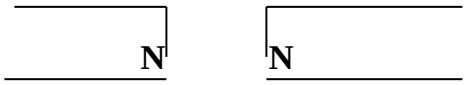
i) Determine the angle of retraction for the ray shown. **(3mks)**

ii) Complete the ray diagram to show retracted ray **(1mk)**

iii) Determine the angle of incidence for which the angle of retraction is 90^0 **(3mks)**

iv) Calculate the speed of light in water given that the speed in air is 3.0×10^8mls

13)a) Draw magnetic field pattern between the following poles. **(2mks)**



b)Using dormain theory, explain why it is not possible to magnetize a magnetic material beyond a certain limit**.** **(3mks)**

……

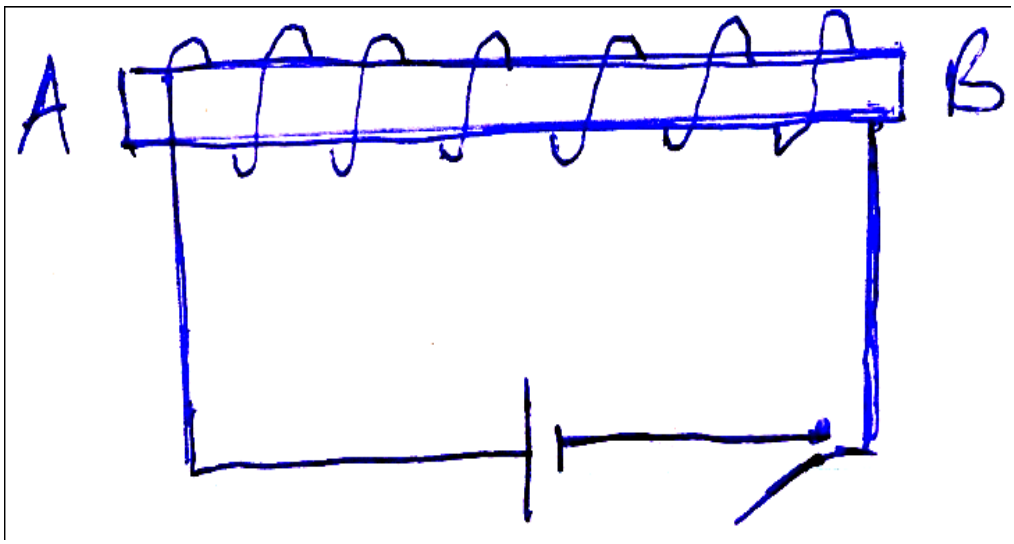
……

……

……

……

iii) The figure below shows an electromagnet connected to a battery.



i) On the same diagram indicate the direction of the flow of current when the switch is closed. **(1mk)**

ii) State polarities A **and B.** **(2mks)**

……

……

iii) State three ways of increasing the strength of the electromagnet**.** **(3mks)**

……

……

……

……

iv) State two uses of electromagnets **(2mks)**

……

……

14)a)Define the following terms

i) Amplitude **(1mk)**

……

……

ii) Frequency **(1mk)**

……

……

b) State one difference between electromagnetic and mechanical waves give one example in each. (**4mks)**

……

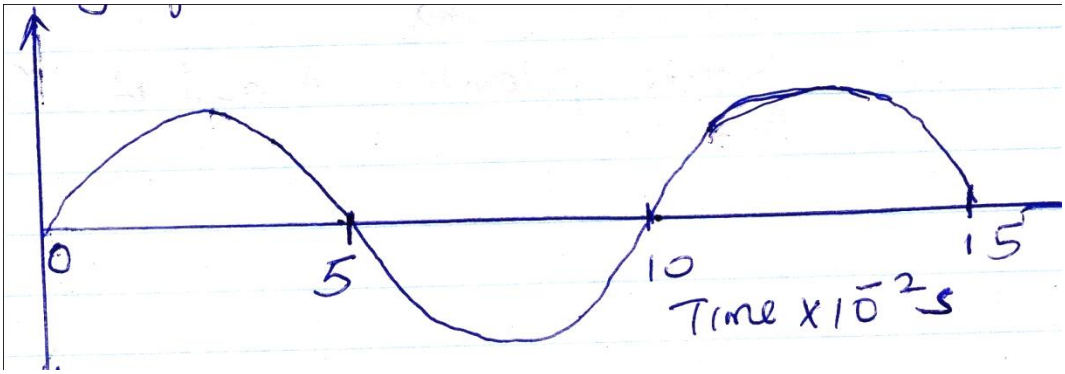
……

……

……

……

iv) The wave shown in the figure below has a velocity of 200mls.



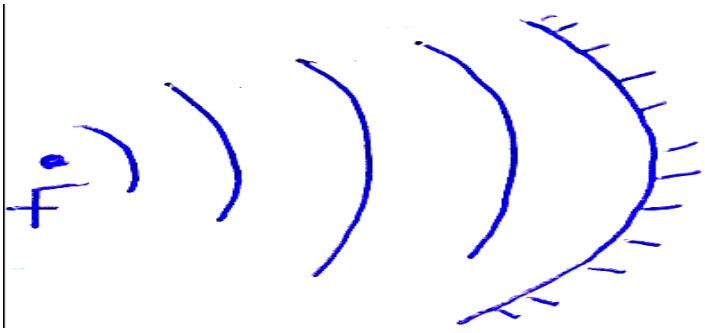
Determine

a) The period of the wave**.** **(1mk)**

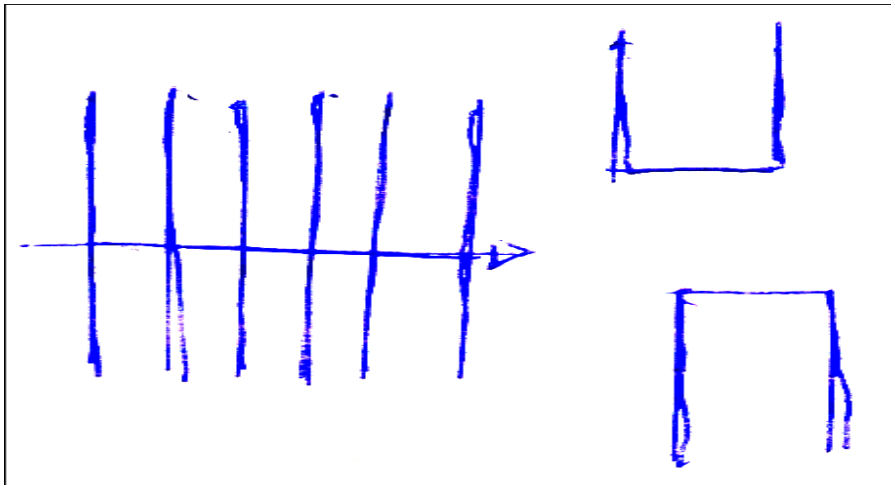
b) The frequency of the wave. **(3mks)**

c) The wavelength of the wave**,** **(3mks)**

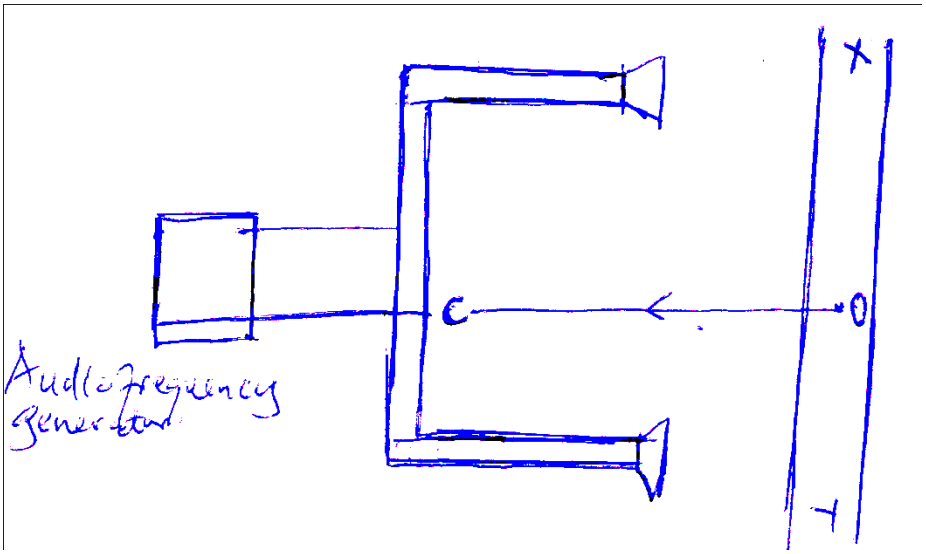
15)a) The figure below shows circular waves approaching a concave reflector. Show the reflected waves**.** **(2mks)**



b) In the figure below water waves of one incident on an aperture which is greater than the wavelength of the waves. Show the pattern of the waves beyond the aperture**.** **(2mks)**



16) The figure below shows the set up to demonstrate interference of sound.



a) An observer moves along XY state and explain what the observer will hear. **(3mks)**

b) State and explain what now the observers will hear if he moves along line 0C **(2mks)**

……

……

……

17)a) State ohims law**.** **(1mk)**

……

……

b) Differentiate between potential difference (pd) and electromotive force (**Emf)** **(2mks)**

……

……

……

c)A cell drives a current of 2.0A through 0.6 resistor. When the same cell is connected to 0.952 resistor the current that flows is 1.5A. find.

i) The internal resistance of the cell. **(3mks)**

ii) The electromotive force (Emf) of the cell**.** **(3mks)**

18) State two factors that affect the resistance of metallic conductor. **(2mks)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

232/3

PHYSICS

PAPER 3 (PRACTICAL)

TIME: 2½ HOURS

CONFIDENTIAL

QUESTION ONE

Each candidate will require:

a) *Two retort stands*
b) *Two clamps*
c) *Two bosses*
d) *120cm long Inextensible thread*
e) *20cm Inextensible thread*
f) *One pendulum bob*
g) *One stop watch*
h) *Each student to bring a complete geometrical set*
i) *One metre rule*
j) *One half metre rule*
k) *Masking tape*

Question 2

a) *a nichrome wire x, 1m long mounted on mm scale and labeled PQ at the ends (SWG 28)*
b) *a dry cell*
c) *a switch*
d) *a voltmeter (0 – 3v)*
e) *an ammeter (0- 1A)*
f) *a cell holder*
g) *eight connecting wires (4 with crocodile clips attached to the ends).*
h) *A micrometer screw gauge (can be shared)*

FORM 3 ENDTERM 2 EXAMS

SERIES 1

232/3

PHYSICS

PAPER 3 (PRACTICAL)

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

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

b) *Answer all questions in the space provided.*

c) *All working must be clearly shown where necessary.*

d) *Non-programmable silent electronic calculation may be used.*

e) *Candidates should check the questions paper to ascertain that all pages are printed as indicated and that no question is missing.*

Question	Candidate's Score	Maximum Score
1		19
2		21
Total		40

QUESTION 1

You are provided with the following apparatus

l) Two complete retort stands.

a) A metre rule

b) Two pieces of thread (120cm and 20cm)

c) A stop watch

d) A piece of masking tape

e) A pendulum bob

f) A half metre rule

g) Attach one end of string to the metre rule at the 10cm mark by fastening a loop of string tightly round the metre rule.

h) Fix the string at this point with a piece of masking tape

i) Tie the string in the second loop at 90cm mark. Fix this loop with another piece of masking tape.

iii) Attach the pendulum bob at the centre of the string – so that the centre of gravity of the bob is 15cm below the point of suspension (as shown in the figure below.)

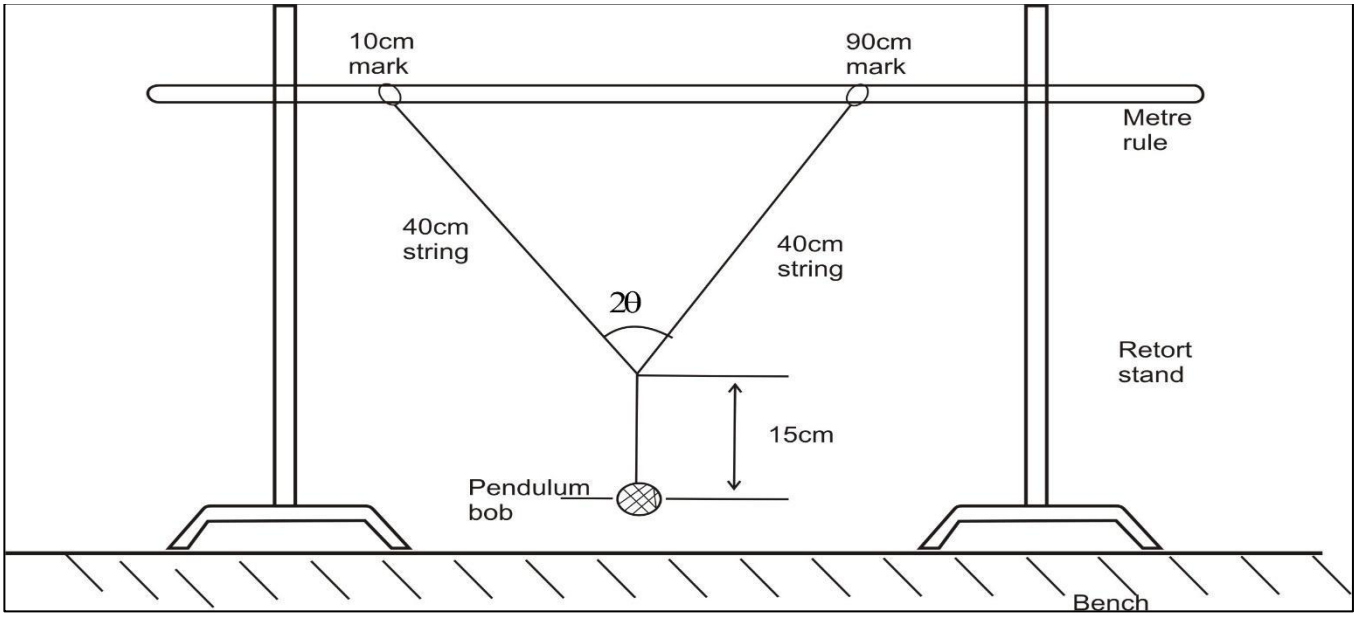


Figure 1

19)(i) Measure the angle 2θ .....1/2 mk

v) Pull the pendulum bob towards you through a small distance release it and measure time "t" for 10 oscillations.

.....1/2 mk

vi) Remove the masking tape slide the loops to the 12cm and 88cm marks. Refix the masking tape. Measure the angle $\boxed{2\theta}$ and time"t" as before

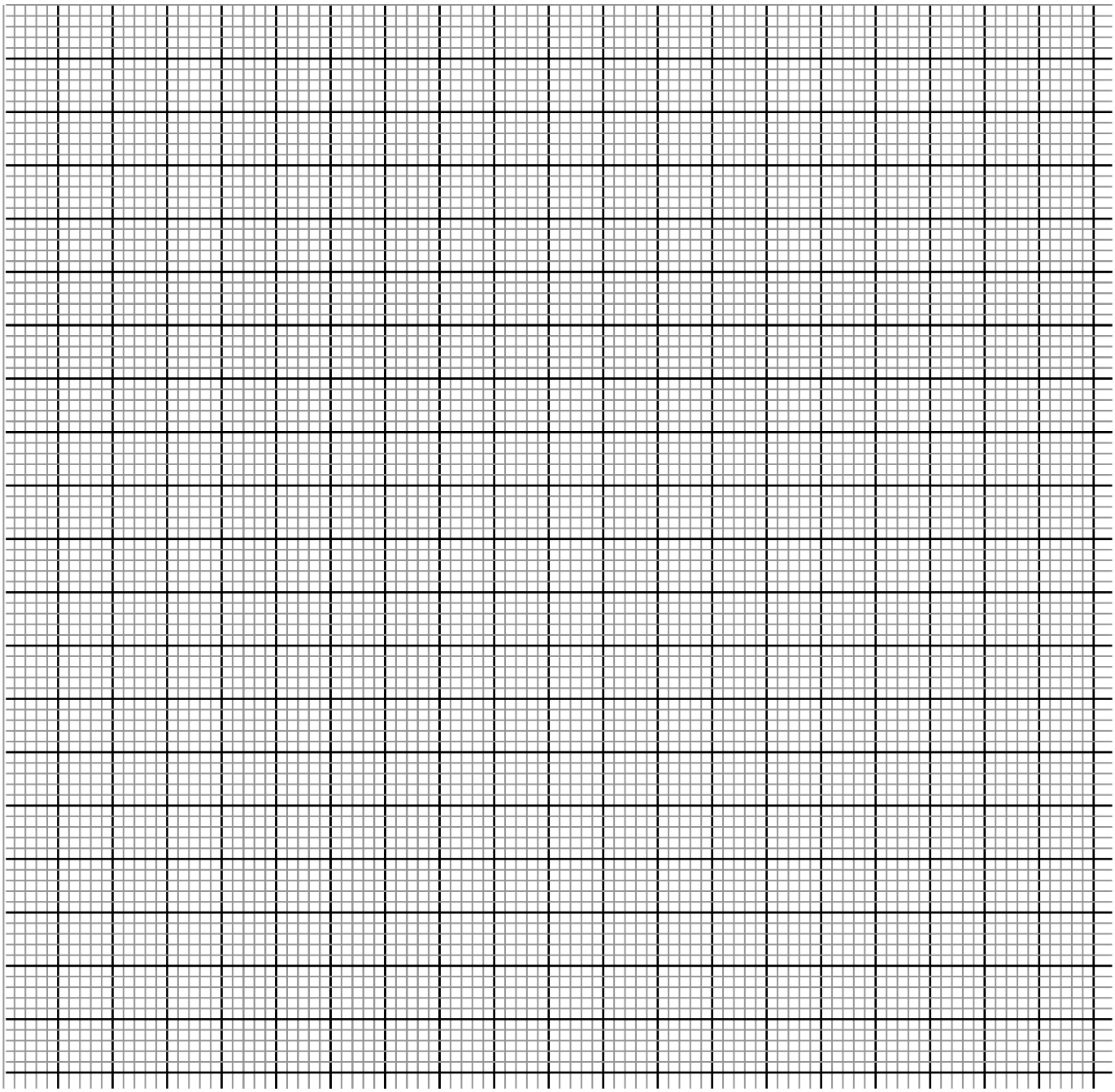
vii) Repeat (iii) above with the loops at 15cm and 85cm, 20cm and 80cm, 25cm, and 75cm. 30 and 70cm, 35cm and 65cm marks.

viii) Enter all your results in the table below.

	10 and 90	12 and 88	15 and 85	20 and 80	25 and 75	30 and 70	35 and 65
2θ							
θ^0							
$Cos\ \theta^0$							
Time for 10 oscillations t (s)							
Periodic time T(s) $\boxed{T = \frac{t}{10}(s)}$							
$\boxed{T^2(S^2)}$							

(10mks)

c) (i) Plot a graph of T^2(y-axis) against cos θ **(5mks)**



(ii) Determine the value of T^2 at the point where the graph intercepts the y – axis. **(1mk)**

(iii) Given that the value of T^2 at the point A where the graph cuts the y – axis is given by

$A = \left| \frac{0.6\Pi^2}{K} \right|$, use your result in (ii) above to determine the value of *K*. **(3mks)**

Question 2

Q2. You are provided with the following apparatus

a) A voltmeter

b) An ammeter

c) A wire x mounted on a metre rule

d) 6 connecting wires with crocodile clips

e) Micrometer screw gauge

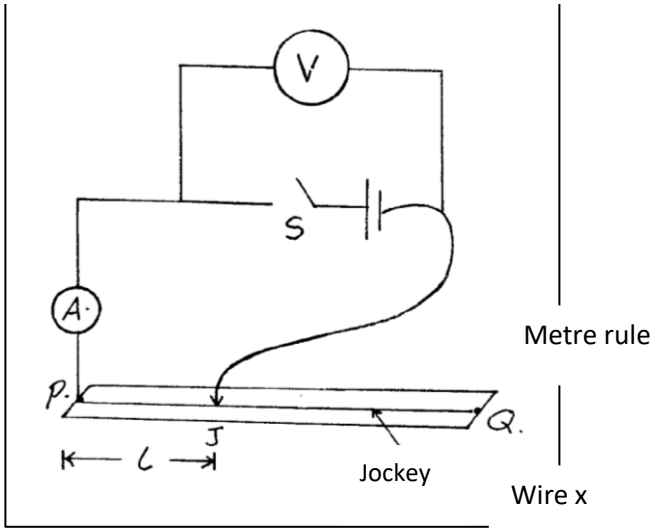
f) A switch

g) A jockey

h) One new dry cell and a cell holder.

Proceed as follows:

a) Connect the apparatus provided as shown in the circuit below.



b) With the crocodile clip at L = 10 cm, close the switch S and record the ammeter and voltmeter reading.

I = _____ A **½ mk**

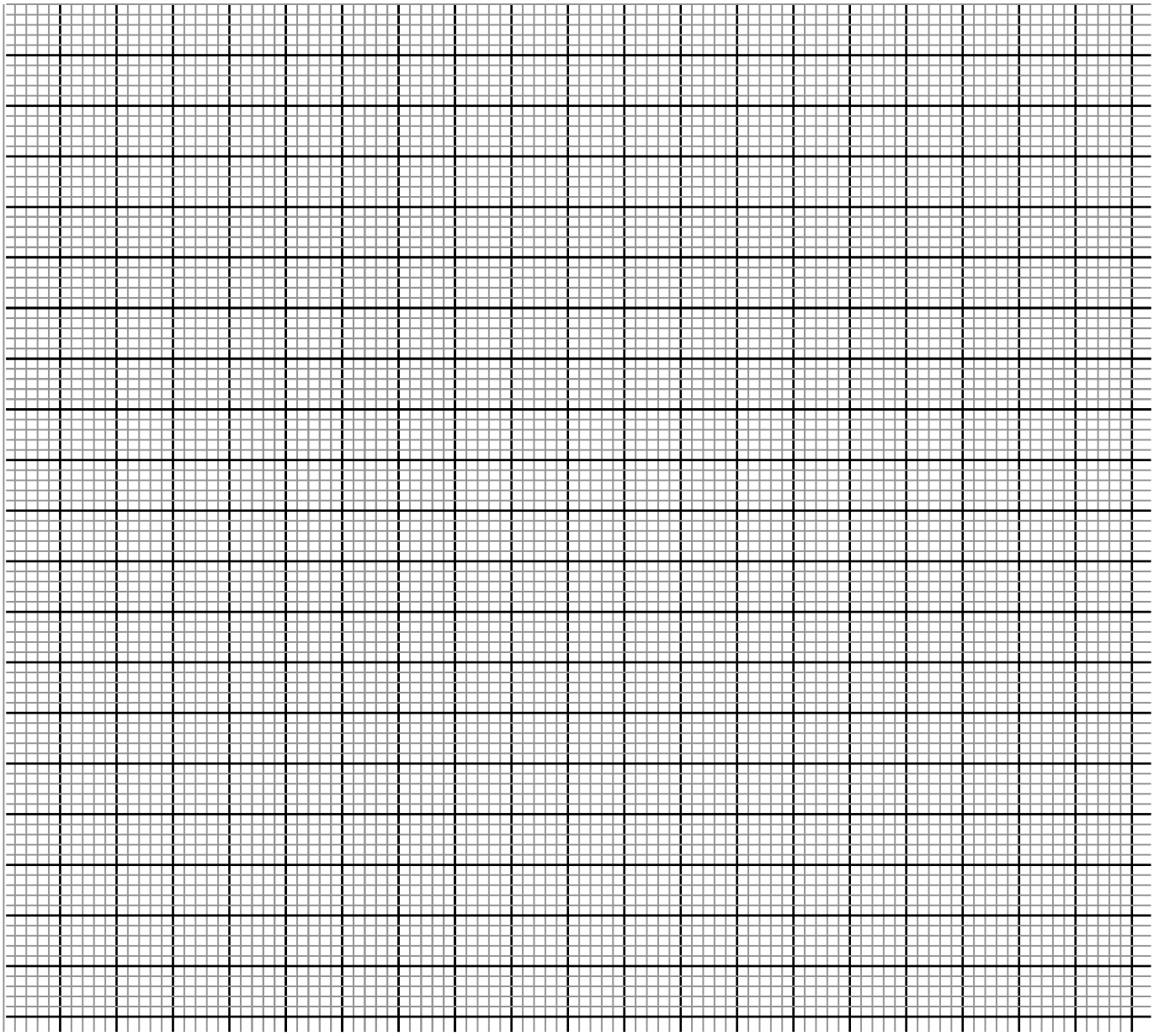
V = _____V **½ mk**

c) Repeat the procedure in (b) for other values of l = 15cm, 20cm, 25cm, 30cm, 35cm and record the readings in the table below.

Length. L. (cm)	10	15	20	25	30	35
Voltmeter reading , V (volts)						
Ammeter reading , I(A)						

(5mks)

Plot a graph of potential difference, V(y-axis) against the Current I. **(5mks)**



d) Determine the slope of the graph **(2mks)**

d) Given that V= E – I r, use your graph to determine the value of;

(i) E **(1mk)**

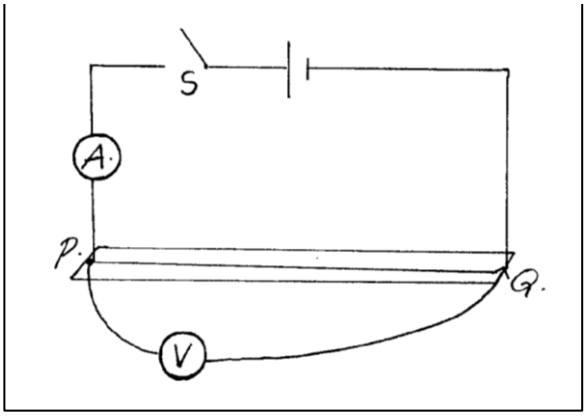
(ii) r **(1 mk)**

e) Measure the diameter d of the wire x using the micrometer screw gauge.

d = _____ mm **½ mk**

_____m **(1/2 mk)**

f) Dismantle the apparatus and set up the circuit as shown below.



g) Close the switch S and record the ammeter and the voltmeter readings

I = _____ A

V = _____ V **(1mk)**

Hence find R, the resistance of the wire x.

R = _____ Ω **(1mk)**

h) Given that $R = 4\rho$

πd^2 determine ρ **(2mks)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

121/1

MATHEMATICS

PAPER 1

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

- ***a)*** *Write your **name** and **index number** in the spaces provided above.*
- ***b)*** *Sign and write the **date** of examination in the spaces provided above.*
- ***c)*** *This paper consists of **two** sections, section **I** and section II.*
- ***d)*** *Answer **all** the questions in **section I** and only **five** questions from **section II**.*
- ***e)*** *__All__ answers and working __must__ be written on the question paper in the spaces provided below each question.*
- ***f)*** *Show all the steps in your calculations, giving your answers at each stage*
- ***g)*** *Marks may be given for correct working even if the answer is wrong.*
- ***h)*** *Non- programmable silent calculators and KNEC mathematical tables may be used except where stated otherwise.*

SECTION 1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total

SECTION 2

17	18	19	20	21	22	23	24		GRAND TOTAL

SECTION I(50 marks)

For Marking Schemes Contact 0746-222-000 / 0753-222-000

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

1. Evaluate: **(3mks)**

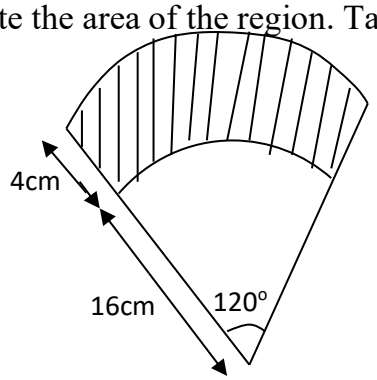
$$^1/_2\left(^3/_5 + ^1/_4\left(\frac{7}{3} - \frac{3}{7}\right) of\ 1\frac{1}{2} \div 5\right)$$

2. A triangle has vertices A(2,5), B(1,-2) and C(-5,1). Determine;

a) The equation of line BC. **(2mks)**

b) The equation of perpendicular line from A to BC. **(2mks)**

3. The shaded region in the figure below shows an area swept out on a flat windscreen by a wiper. Calculate the area of the region. Take $\pi = 3.142$. **(3mks)**



4. A piece of metal has a volume of $20cm^3$ and a mass of 300g. Calculate the density of the metal in kg/m^3. **(3mks)**

5. List the integral values of x which satisfy the inequalities below. **(3mks)**

$$2x + 21 > 15 - 2x \geq x + 6$$

6. Janet is a saleslady earning a basic salary of Kshs. 20,000 per month and a commission of 8% for the sales in excess of Kshs. 100,000. If in January 2010 she earned a total of Kshs. 48,000 in salaries and commissions. Determine the amount of sales. She made in that month. **(3mks)**

7. The interior angle of a regular polygon is 108^{o} larger than the exterior angle. Find the number of sides of the polygon. **(3mks)**

8. Given that Cos $A=\frac{5}{13}$ and angle A is acute. Find the value of 2tan A + 3sin A without calculators. **(3mks)**

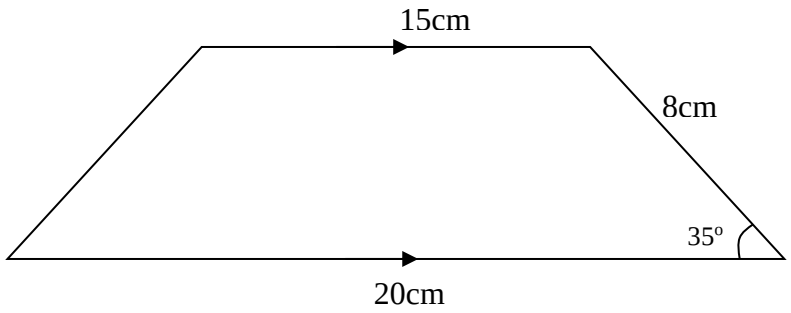
9. Without using a calculator evaluate: **(2mks)**

$$\frac{-9+(-7)\times(-8)-(-5)}{-2+(-6)\div 3\times 6}$$

10. Solve for x in the equation below. **(3mks)**

$$\frac{6x-4}{3}-\frac{2x-1}{2}=\frac{6-5x}{6}$$

11. Calculate the area of the trapezium show below. **(3mks)**



12. Solve the simultaneous equation. **(4mks)**

$x^2 + y^2 = 26$

$x + y = 4$

13. Express 72 and 125 as products of their prime factors. **(2mks)**

14. A service vehicle left town P for town Q at 1000hrs had a puncture after travelling for 4 hrs 20 mins. Fixing a new tyre took 33 minutes. The vehicle then travelled for 1 hr 20mins to reach town Q. At what time did it arrive in 12 hour clock system? **(3mks)**

15. A tourist visited Kenya with 2500 US dollars and changed the US dollars into Kenya shillings at a local bank in Kenya when the exchange rates at the time were as follows:

	Buying	*Selling*
1 US dollar	shs.78.45	shs. 78.55
1 Sterling Pound	shs.120.25	shs. 120.45

a) How much did he get in Kenya shillings? **(2mks)**

b) While in Kenya he used shs. 80,000 and after his stay he converted the remaining amount into Sterling pounds. Calculate to 2 decimal places the Sterling pounds that he got. **(2mks)**

16. Use logarithms tables to evaluate: **(4mks)**

$$\sqrt[3]{\frac{497 \times 9.84}{5.24 \times 7.65}}$$

SECTION II (50 marks)

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

For Marking Schemes Contact 0746-222-000 / 0753-222-000

17. A motorist left Embu for Nairobi a distance of 240km at 8:00 a.m. and travelled at average speed of 90km/hr. Another motorist left Nairobi for Embu at 8:30a.m and travelled at 100km/hr. Find;

a) The time they met. **(3mks)**

b) How far they met from Nairobi. **(3mks)**

c) The time of the day each motorist arrived at his destination. **(4mks)**

18. A farmer has a rectangular farm which measures 100m by 80m. The farmer intends to fence the plot using post at intervals of 4m apart leaving a gate of 4m. Also he will use four strands of barbed wire. Each post cost shs. 125 and wire is sold at rolls of 60m costing 1,500/=. Calculate;

a) The number of post he will use. **(2mks)**

b) The total length of the barbed wire. **(3mks)**

c) The total cost of fencing the farm if the cost of the gate is 8,000/= and labour is shs. 1,500. **(3mks)**

d) The farmer wishes to subdivide further the farm into square plot. Find the maximum area of each plot**.** **(2mks)**

19. The parents of a certain mixed school decided to buy a school van worth Kshs 900,000. Each student was to contribute the same amount of money. 50 students were transferred from the school as a result each of the remaining students had to pay kshs.600 more.

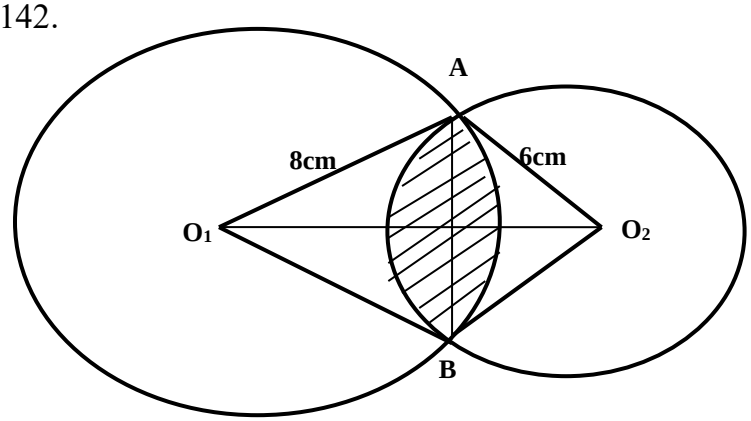
a) Find the original number of the students in the school. **(5mks)**

b) Find the percentage change in contributions per student. **(3mks)**

c) If the ratio of boys to girls in the school was 11:7, find the amount of money contributed by boys alone. **(2mks)**

20. The figure below shows two circles of radii 8cm and 6cm with centres O_1 and O_2 respectively. The circles intersect at points A and B. The lines O_1O_2 and AB are perpendicular to each other. If the common chord is 9cm;

(Take π=3.142.



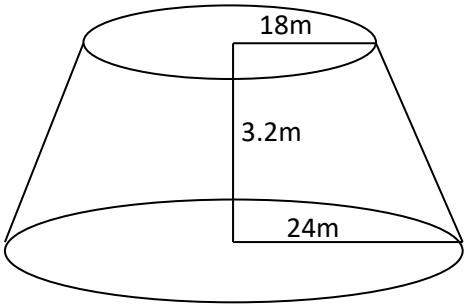
Calculate to 4.s.f.

a) Angle AO_1B **(2mks)**

b) Angle AO_2B **(2mks)**

c) Area of the shaded region. **(6mks)**

21. A village water tank is in the form of a frustum of a cone of height 3.2m. The top and bottom radii of 18m and 24m respectively as shown below.



a. Calculate;

i. The surface area of the tank excluding the bottom. **(4mks)**

ii. The capacity of the tank in litres. **(3mks)**

b. 15 families each having 15 members use the water tank and each person uses 65 litres daily. How long will it take for the full tank to be emptied? **(3mks)**

22. Measurements of a maize field using baseline XY were recorded as shown below in metres

	Y		
	240		
To R 160		190	
	180		75 To Q
	150		50 To P
To S 100		120	
	100		100 To N
To T 30		50	
	20		20 To M
	X		

a) Show the map of the maize field by scale drawing. Take 1cm rep 20m. **(4mks)**

b) Find the area of the field in hectares. **(4mks)**

c) If the cost of one hectare is Kshs. 65,000, find the total cost of the maize field. **(2mks)**

23. Using a ruler and pair of compass only construct the following.

a) Triangle XYZ where XY is 6cm and angle XYZ is 135^{o} and YZ=7cm. Measure XZ. **(3mks)**

b) Drop a perpendicular from Z to meet line XY at K. measure YK. **(3mks)**

c) Bisect line XY and let the bisector meet line XZ at Q. **(2mks)**

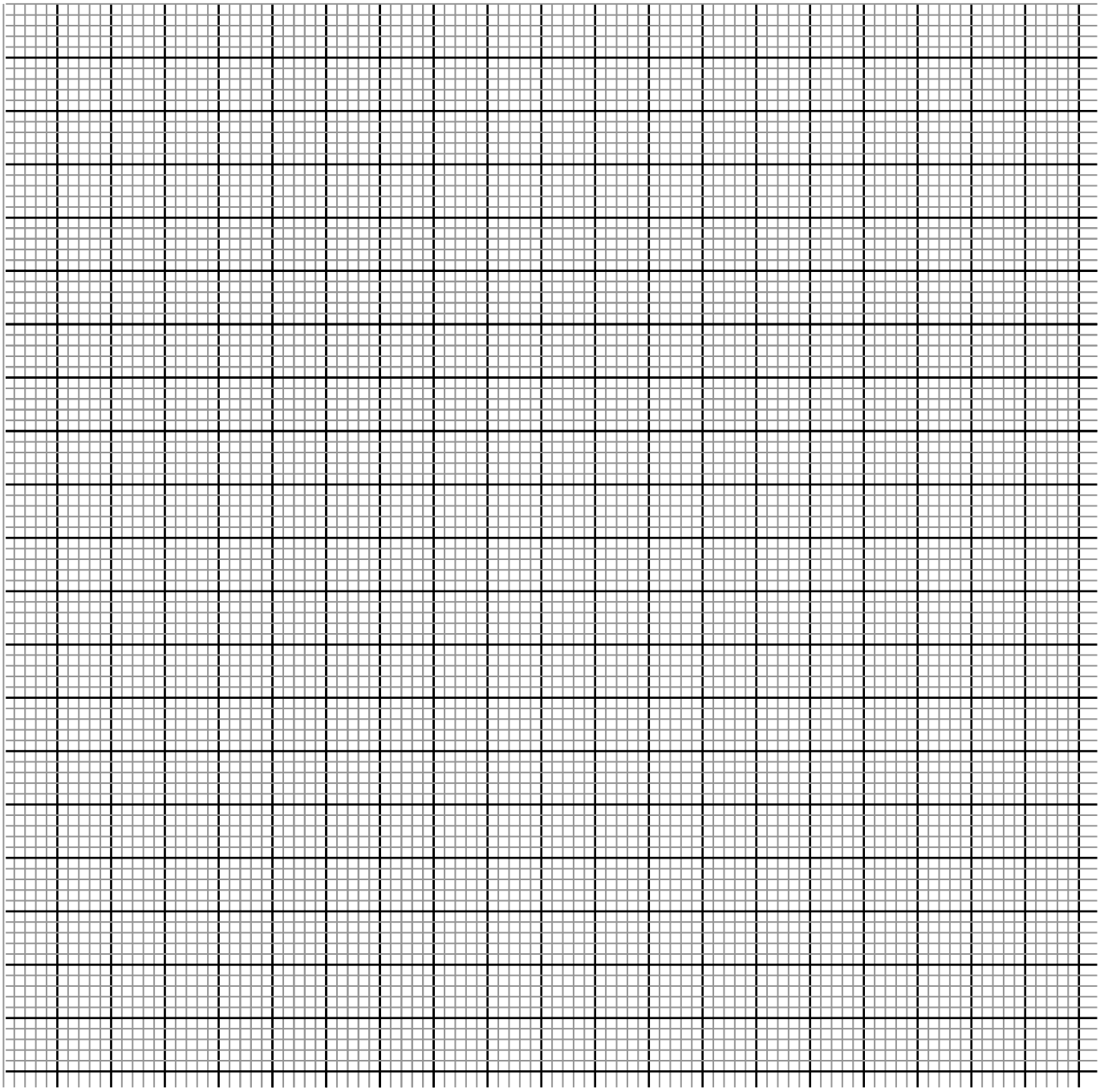
d) Join Q to Y and measure angle XQY. **(2mks**

24. Complete the table for the function.

a) $y=1-2x-3x^2$ in the range $-3 \leq x \leq 3$ **(2mks)**

x	-3	-2	-1	0	1	2	3
-3x2	-27		-3	0		-12	
-2x				0			-6
1	1	1	1	1	1	1	1
y	-20			1		-15	

b) Use the table above to draw a graph of $y=1-2x-3x^2$ on the graph provided. **(4mks)**



c) Use the graph in (b) above to solve;

i. $1 - 2x - 3x^2 = 0$ **(2mks)**

ii. $2 - 5x - 3x^2 = 0$ **(2mks)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

121/2

MATHEMATICS

PAPER 2

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

1. *Write your name and admission number in the spaces provided*
2. *Answer all questions in section I and any five questions in Section II*
3. *All Workings and answers must be clearly written in the spaces provided.*
4. *Marks may be awarded for correct working even if the answer is wrong.*
5. *Non programmable silent electronics and KNEC Mathematical tables may be use, except where otherwise.*

FOR EXAMINERS USE ONLY

SECTION I

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									

SECTIONI (50MARKS)

Answer All Questions In This Section

1. Evaluate using logarithms. **[4 Marks]**

$$\frac{\sqrt[3]{0.04689}}{51.64 \times 0.793}$$

2. A rectangular card measures 5.3cm by 2. 5cm.Find

a) The absolute Error in the area of the card. **[2Marks]**

b) The Percentage Error in the Area of the card **[2Marks]**

3. The length of a room is 4m longer than its width. Find the length of the room if its area is $32m^2$**.**

[3 Marks]

4. If 20 Men can lay 36m of a pipe in 8 hours. How long would 25 Men take to lay the next 54m of the pipe? **[2 Marks]**

5. Expand $(2 + x)^5$ in ascending powers of x up to the term in x^3. Hence, approximate the value of $(2.03)^5$ to 4s.f. **(4marks)**

6. Simplify by rationalizing the denominator; **[2 Marks]**

$$\frac{3}{2\sqrt{3} - \sqrt{2}}$$

7. A scientific calculator is marked at sh. 1560. Under hire purchase it is available for a down payment of sh. 200 and six monthly instalments of sh. 250 each. Calculate;

a. The Hire purchase price. **[2 Marks]**

b. The extra amount paid out over the cash price. **[1 Mark]**

8. Solve the equation; **[3 Marks]**

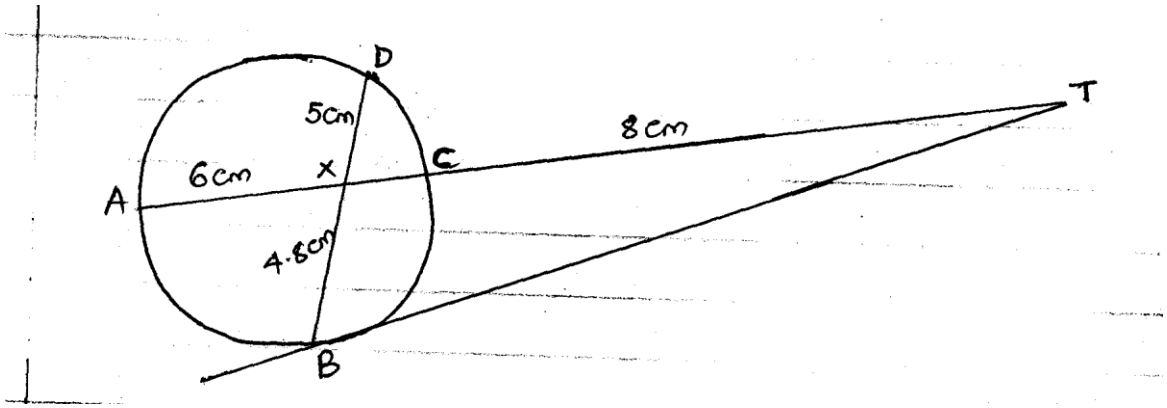
$$\log(2x - 10) - 2log8 = 2 + \log(9 - 2x)$$

9. The Equation of a circle is given by $x^2 + y^2$ - 6x + 4y - 3 = 0 . Determine the center and the radius of the **circle.** **[3 Marks]**

10. Make x the subject of the formula in the equation. **(3mrks)**

$$y = \frac{bx}{\sqrt{ax^2 + b}}$$

11. In the figure below, BT is a tangent to the circle to the circle at B. AXCT and BXD are straight lines. AX=6cm, CT=8cm, BX=4.8cm and XD=5cm.



Find the length of;

a. XC **[2 Marks]**

b. BT **[2 Marks]**

12. Find the value of x if the matrix $\begin{pmatrix} x & 1 \\ 4 & x-3 \end{pmatrix}$ is a singular matrix. **[3 Marks]**

13. The first term of an arithmetic sequence is -7 and the common difference is 4.

a. List the first 6 terms of the sequence **[2 Marks]**

b. Determine the sum of the first 30 terms of the sequence **[2 Marks]**

14. The coordinates of points A and B are (2,5) and (8, -7) respectively. Find the

a) Coordinates of M Which Divides AB in the Ratio 1:**2** **[2 Marks]**

b) Magnitude of AB **[2 Marks]**

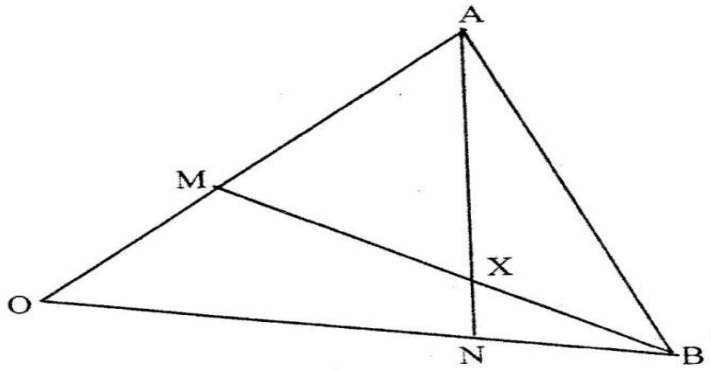
15. Tap A Fills a tank in 6 hours, tap B fills it in 8 hours and tap C empties it in 10 hours. Starting with an empty tank and all the three taps are opened at the same time, how long will it take to fill the **tank.** **[3 Marks]**

16. Grade X of Tobacco Costs Sh.81.50 per Kg and grade Y cost sh 109 per Kilogram. In what ratio must the two grades be mixed in order to make a profit of 20% when the mixture sells at sh. 112.80 per kg**.** **[3 Marks]**

SECTION II

Answer Any 5 Questions In This Section(50marks)

17. The figure below shows triangle OAB in which M divides OA in the ratio 2: 3 and N divides OB .in the ratio 4:1 AN and BM intersect at X.



(a) Given that OA = **a** and OB = **b**, express in terms of a and b**:** **(4mks)**

(i) **AN**

(ii) **BM**

(b)If **AX** = s **AN** and **BX** = t**BM**, where s and t are constants, write two expressions for **OX** in terms of.**a, b** s and t. Find the value of s and t. Hence write **OX** in terms of a and **b** **(6mks)**

18. Kamau, Njoroge and Kariuki are practicing archery. The probability for Kamau hitting the

target is $\frac{2}{5}$, that of Njoroge hitting the target is $\frac{1}{4}$ and that of Kariuki hitting the target is $\frac{3}{7}$.

Find the probability that in one attempt;

a) Only one hits the target **(2mks)**

b) All three hit the target **(2mks)**

c) None of them hits the target **(2mks)**

d) Two hit the target **(2mks)**

e) At least one hits the target **(2mks)**

19. A matrix T is given by $T=\begin{pmatrix}4 & 5\\ 6 & 4\end{pmatrix}$. Find T^{-1} **[2 Marks]**

b) Wanjiku bought 20 bags of maize and 25 bags of beans at a total cost of sh. 77,000. If she had bought 30 bags of maize and 20 bags of beans, she would have spent sh. 7,000 more.

i. Form a matrix equation from this information. **[1 Mark]**

ii. Determine the cost of a bag of maize and a bag of beans. **[3 Marks]**

c) She sold all the maize and beans at a profit of 10% on a bag of maize and 12 ½ % on a bag of beans. Calculate the total percentage profit. **[4 Marks]**

20. At the beginning of the year 2000, Kanyora bought two houses, one in Thika and the other in Nakuru each at 1,240,000. The value of the house in Thika appreciated at a rate of 12% p.a.

a. Calculate the value of the house in Thika after 9 years to the nearest shilling. **[2 Marks]**

b. After n years, the value of the house in Thika was 2,741,245 while the value of the house in Nakuru was 2,917,231.

i. Find n **[4 Marks]**

ii. Find the annual rate of appreciation of the house in Nakuru. **[4 Marks]**

21. The table below shows income tax rates.

Taxable Income In K**£ Per Month**	**Rate in shs. per k£**
1 -325	2
326 – 650	3
651 - 975	4
976 - 1300	5
1301 - 1625	6
Over 1626	7

Mr. Wafula earns a basic salary of 30,500. He has a house allowance of sh. 6,000 per month, medical allowance of sh. 4,000 per month and transport allowance of sh. 3,000 per month. He claims a tax relief of sh. 1,056 per month.

a. Calculate

i. Wafula's taxable income in k£ per month. **[2 Marks]**

ii. Gross tax. **[3 Marks]**

iii. Net Tax **[2 Marks]**

b. His net income per month has the following deductions

Health insurance fund – sh. 150

Loan interest – sh. 200

Service charge – sh. 200

Sacco loan – sh. 2,500

Calculate his net income per month. **[3 Marks]**

22.

a) P varies jointly as Q and the square of R. P = 18 when Q = 9 and R = 15. Find R when P=32 and Q=81. **[5 Marks]**

b) A varies Directly as B and inversely as the square root of C. Find the percentage change in A When B is decreased by 10% and C increased by 21%. **[5 Marks]**

23.

a) The first term of an arithmetic progression is 2. The sum of the first 8 terms of the AP is 240.

i. Find the common difference of the AP. **[2 Marks]**

ii. Given that the sum of the first n terms of the AP is 1,560. Find n **[2 Marks]**

b) The 3rd, 5th and 8th terms of another AP from the first three terms of a G.P. If the common difference of the AP is 3. Find.

i. The first term of G. P **[4 Marks]**

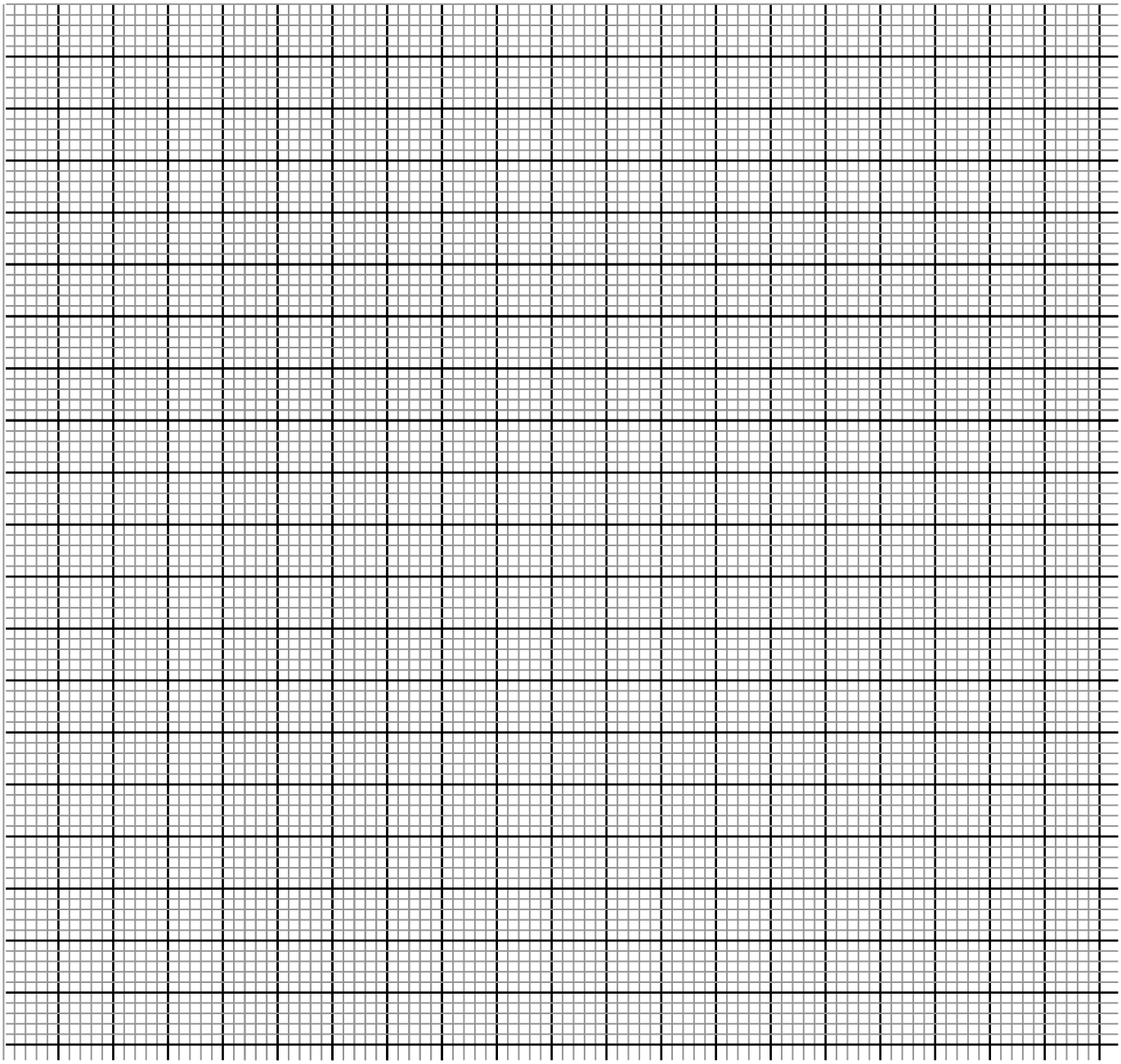
ii. The sum of the first 9 terms of the G.P to 4 s.f. **[2 Marks]**

24.

a) Complete the table below for the function Y=$2x^2 + 4x - 3$ **[2 Marks]**

x	-4	-3	-2	-1	0	1	2
$2x^2$	32			1	0		8
$4x$	-8	-12	-8			4	8
-3	-3	-3	-3	-3	-3	-3	-3
y	21		-3				

b) On the grid provided, draw the graph of the function $y = 2x^2 + 4x - 3$for $-4 \leq x \leq 2$**[3 Marks]**



c) Use your graph to solve the roots of the quadratic equations.

i) $2x^2 + x - 5 = 0$ **[2 Marks]**

ii) $2x^2 + 3x - 2 = 0$ **[2 Marks]**

iii) $x^2 + 4x - 3$=**0** **(1 mark)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

101/1

ENGLISH

PAPER 1

(Functional writing, cloze test and oral skills.)

TIME: 2 HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education

INSTRUCTIONS TO CANDIDATES

1. *Write your details in the spaces provided above.*
2. *Answer all the questions in this paper.*
3. *Answer the questions in English*

EXAMINER'S USE ONLY

QUESTION	MARKS	CANDIDATE'S SCORE
1	20	
2	10	
3	30	
TOTAL	**60**	

1. You are the secretary of Umoja Faith Church Youth Group. The group is planning to hold a meeting on 16th August 2015 whose main agenda will be the Mission Outreach and initiating income generating activities. The constitution stipulates that there must be a 21-day notification of the meeting.

i) Write a notice of the meeting that will be sent to the members. **6 marks**

ii) During the meeting, 8 members were present, 3 including the treasurer sent apologies and the whereabouts of 2 members were unknown. The youth pastor attended the meeting. Apart from the main issues, members raised some matters from the previous meeting. There were also some personal issues raised by some members.

Write down the minutes of the meeting. **14 marks**

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

2. ***Read the passage below and complete each blank space with an appropriate word 10 marks***

Citizens used to i)…….. that political leaders would observe the principles of good governance simply ii)……they were expected to. iii)…….; it appears most leaders on the continent have replaced integrity with reckless impunity that has iv)…….. Africa in chaos. v)…….office are also supposed to be vi)…… to the people that entrusted them with the vii)……..of leading them. viii)……, the political elite in the continent see people as a means to an end. In many countries these days, Kenya included, politics has become the easiest way to make money. Electioneering is seen as an ix)……..with extremely lucrative returns when campaign loyalties are x)…….with appointments in the government of the day.

3. *a) Read the following Ankole song and answer the questions that follow.*

Suck and I hide you, my gentle one
I dreamt that the hunt was at Buganga
Where, oh where, shall I put, my little baby?
If I put you in a clump of grass, my gentle one
The hunters' thick club tears up the back

Suck and I hide you, my beloved
I dream that the hunt was at Ngarama
Where, oh where, shall I put you, my lovely little lips?
The hunters' rough dog will come sniffing around

Suck and I hide you, gentle one
Where, oh where, shall I put you, my lovely little lips?

Suck and I hide you, for whom the drum sounds
Where, oh where, shall I put you, my beloved?

If I put you by the wayside, gentle one
beloved If I put you in an anthill, my little baby
lovely little lips

Passers-by will take you with them, my
The ants will enclose you in their nest,

Suck and I hide you, little baby
When I am dead and gone, gentle one
And wash them down with a little water, my little baby
drum sounds
If I do not die, my little baby

Suck and I hide you, my gentle one
Feed on little blades of grass like cow, my beloved
That's what raises orphans, you for whom the

Good things will be ours to enjoy, you for whom the drum sounds

i) Identify aspects of oral performance that make this song easy to remember? **2 marks**

……

……

……

(ii) In what ways would this song be made interesting to listen to? **2 marks**

……

……

……

(iii) How would you perform the last two lines of the above song? **(2 marks)**

……

……

……

b) ***Study the genre below and answer the questions that follow***

I have a wife everyone she bears has a bead

i) Identify the genre under which the above item falls. **1 mark**

ii) Assuming you were to perform this genre, what will you do before the presentation?

1mark

iii) How will (ii) above assist you as a presenter? **1mark**

c) *Identify the silent letters in the words below* **3marks**

i) Shepherd …….

ii) Rendezvous ……

iii) Epistle ……

d) *Write another word that has the same pronunciation as the following words* **3marks**

i) Mark ……..

ii) Broach ……

iii) Proof ……..

e) *Underline the stressed the syllables in the highlighted words* **2 marks**

i) We have to *relocate* these people

ii) The security officer will *punish* you if you come late.

f) *Indicate whether the following sentences have a falling or a rising intonation.* **2 marks**

i) A stitch in time saves nine

ii) Do you like tomatoes or not.

g) Jaramba's son, Mariapa, was really enthusiastic to go for a party with his friends at Carnivore. He had been invited to a friend's birthday party. He had to get permission from the father first in order to attend. However, Mariapa failed to convince his father because of his approach and language. What could have been the weaknesses in his negotiation skills? **5 marks**

.....

.....

.....

.....

.....

.....

h) *Read the conversation below between Audrey, a student, and the school secretary then answer the questions that follow.* **6 marks**

Audrey: Hallo. Good morning.

Secretary: Hallo. Who is on the line and what do you want?

Audrey: I am a Form 4Y student and I have been away from school for three days now. May I speak to the Principal?

Secretary: The Principal is not in the office now.

Audrey: Could I please leave a message for him?

Secretary: Oh, please, don't you have his cellphone number?

Audrey: No madam, since it is official, kindly take down the…

Secretary: Excuse me, young girl, I am too busy for this idle chat.

Audrey: I am sorry but it is very urgent, madam.

Secretary: (*without a pen or paper)* Go ahead and you better be quick.

Audrey: Thanks for the attention

i) Identify the weaknesses in the secretary's telephone conversation skills. ***3marks***

.....

.....

.....

.....

.....

.....

(ii)What should she do to improve on this? ***3marks***

.....

.....

.....

.....

.....

FORM 3 ENDTERM 2 EXAMS

SERIES 1

101/2

ENGLISH

PAPER 2

(Comprehension, Literary Appreciation and Grammar.)

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

INSTRUCTIONS TO CANDIDATES.

- Answer ALL the questions.

FOR EXAMINERS USE ONLY

Question	Maximum score	Candidate's score
1.Comprehension	20	
2.Literary Appreciation	25	
3.Poetry	20	
4.Grammar	15	
Total score	**80**	

a) <u>Read the passage below and answer the questions that follow</u> ***(*20mks)**

WORRY has completely defeated me. My mind was so confused and troubled that I could see no joy in living. My nerves were so strained that I could neither sleep at night nor relax by day. My three young children were widely separated, living with relatives. My husband was in another city trying to establish a law practice. I felt all the insecurities and uncertainties of the post –war readjustment period.

I was threatening my husband's career, my children natural endowment of a happy, normal home life, and I was also threatening my own life. My husband could find no housing, and the only solution was to build. Everything depended on my getting well. The more I realized this and the harder I would try; the greater would my fear of failure. Then I developed a fear of planning for any responsibility. I felt that I could no longer trust myself. I felt I was a complete failure.

When all was darkest and there seemed to be no help, my mother did something for me that I will never forget or ceases being grateful for. She shocked me into fighting back.

She upbraided me for giving in and for losing control of my nerves and my mind, she challenged me to get up out of bed and fight for all I had. She said I was giving in to the situation ,fearing it instead of facing it, running from life instead of living it.

So I did start fighting from that day on. That very weekend I told my parents they could go home, because I was going to take over; and I did what seemed impossible at the time. I was left alone to care for my two younger children. I slept well. I began to eat better, and my spirits began to improve.

A week later when they returned to visit me again, they found me singing at my ironing. I had a sense of well -being because I had begun to fight a battle and I was winning. I shall never forget this lesson..... if a situation seems insurmountable, face it! Start fighting! Don't give in.

From that time on I forced myself to work, and lost myself to work. Finally I gathered my children together and joined my husband in our new home. I resolved that I would became well enough to give my family a strong, happy mother. I became engrossed with plans for my children, plans for my husband, and plans for everything except for me. I became too busy to think of myself. And it was that the real miracle happened.

I grew stronger and stronger and could wake up with the joy of well - being , the joy of planning for a new day ahead, the joy of living. And although day of depression did creep in occasionally after that, especially when I was tired, I would tell myself not to think or try to reason with myself on those days and gradually they became fewer and fewer and finally disappeared.

Now, a year later, I have a very happy, successful husband, a beautiful home that I can work in sixteen hours a day, and three healthy, happy children and for myself , peace of mind.

(Adapted from "How to stop worrying and start living")

<u>Questions</u>

(a) Give **five** effects of worry on the writer. **(5mks)**

……

……

……

……

……

……

(b) What do you think was the cause of the writer's worry. **(2mks)**

……

……

……

(c) Describe the element of **irony i**n the writer's life. **(3mks)**

……

……

……

……

(d) How does the writer get out of this terrible situation? **(2mks)**

……

……

……

(e) What **steps** does the writer undertake to overcome the problem? **(4mks)**

……

……

……

……

(f) In a paragraph of about **60 words** explain the benefits of the writer's efforts to overcome worry. **(4mks)**

……

……

……

……

……

……

……

……

……

2. <u>Read the excerpt below and then answer questions that below.</u>

Nicole: I don't

Mossi: I mean the people who voted these evil men into public office. *The Samaritan* should focus on the people if it intends to solve any problem.

Nicole: It does focus on the people, Sir, doesn't it?

Mossi: Then, why are they whining? If you elect a howler monkey to be the librarian, why should you complain when it starts howling when you most want to read in silence? Do you seriously think a computer programme or whatever it is, will stop a monkey from eating bananas?

Nicole: I don't think people are whining now. They are demanding things to be done right and justice be served. They never voted anyone to go and steal.

Mossi: But you now understand my situation, don't you?

Nicole: I understand perfectly.

Mossi: So how are you going to help me survive the onslaught in The Samaritan?

Nicole: Your worship, it is very clear from our talk that members of the Municipal Executive Council have failed you.

Mossi: Of course! They have failed me big time!

Nicole: And don't you think The Samaritan is a blessing for you? I mean as a platform through which the people can demand the corrupt leaders' removal from office and prosecution?

Mossi: *(Turning suddenly to face Nicole, like one suddenly jolted back to reality)* Should I take that to mean this thing is a political weapon? (*Pointing at Nicole, with a tremor in his voice*) Are you by any chance being used to destroy my political career?

Nicole: I do not play politics, Sir.

Mossi: (*Pacing about in anger*) And what did you just say? It is now very clear to me that you are playing politics! In fact, I now realize the real culprit behind all the problems in our society is the teaching profession!

Nicole: Teaching profession? How?

Mossi: (*Pointing at Nicole*) You cannot teach the right things. All the people creating the mess in our society are products of the school system. They all pass through the teachers' hands!

Nicole: Your Worship, we are trying our best to mould the character of our learners here at Sagrada Secondary School. We teach them to uphold the moral and civic virtues without which our

society can never prosper, be fair, just, and peaceful. We teach them the virtues of honesty, truthfulness, generosity, integrity and transparency. *(She pauses, then resumes)* It is the lack of virtue that is ruining our society.

Mossi: How can you tell children that in future the police can be replaced with a software or was it an intelligent robot? Is that teaching virtue? What attitude do you want them to have towards police officers? Do you think they can ever obey the police?

Nicole: We are seeking to develop virtuous creative thinkers and innovators. And we may not only replace police officers with intelligent robots but also develop software that will eventually replace the politician.

Mossi: (*Menacingly*) I know why you insist on an innovation that cannot solve any problem. It is all political! And you want us to believe that those young kids are capable of developing something like The Samaritan App?

Questions

a) Explain where the events above take place. **(1 mark)**

……

……

b) The Mayor admits that the members of the Municipal Executive Council have failed him. From your knowledge of the text, mention any two members and account for how they have failed him. . **(4 marks)**

……

……

……

……

c) Give and illustrate any two aspects of style used in this excerpt. **(4 marks)**

……

……

……

……

d) Describe the character of Mayor Mossi as portrayed in the excerpt. **(6 marks)**

……

……

……

……

……

……

e) Highlight any two thematic concerns raised in the excerpt. **(4 marks)**

……

……

……

……

f) Describe Mayor Mossi's attitude towards the school system. **(3 marks)**

……

……

……

……

g) "The Samaritan should focus on the people if it intends to solve any problem." (*Rewrite the sentence beginning: Unless …*) **(1 mark)**

……

……

h) Explain what happens after the excerpt. **(3 marks)**

……

……

……

……

3. Read the following oral poem and then answer the questions which follow

O elephant possessor of a saving- basket full of money
O elephant, huge as a hill, even in a crouching posture,
O elephant, enfolded by honour:demon, flapping fans of war.
Demon who snaps tree branches into many pieces and moves on the forest farm,
O elephant, whom ignores ' I have fled to my father for refuge'.
Let alone 'to my mother'Mountains Animal, Huge
Best who tears a man like a garment and hangs him up on a tree,

The sight of whom causes people to stampede towards a hill of safety,
My chant is a salute to the elephant ,Ajanaku who walks with a heavy tread,
Demon who swallows palm-fruit bunches, whole, even with the spiky pistil –cells,
O elephant, praise named, Laaye, massive animal blackish –grey in complexion,
O elephant, who single-handed cause a tremor in a dense tropical forest,
O elephant, who stands sturdy and alert, who walks slowly as if reluctantly,
O elephant, whom one sees and points towards with all one's fingers.
The hunters boast at home is not repeated when he really meets the elephant.
The hunters boast at home is not repeated before the elephant,
Ajanaku looks back with difficulty like a person suffering from a sprained neck.
The elephant has a porter's – knot without having any load on his head.
The elephant's head is his burden which he balances,

O elephant, praise named, Laaye, O death, please stop following me.
This part and parcel of the elephant's appellation.
If you wish to know the elephant, the elephant who is a veritable ferry –man.
The elephant whom honuor matches, the elephant who continually swings his trunk.
His upper fly-switch.,It's the elephant whose eyes are veritable water –jars,

O elephant, the vagrant par excellence.
Whose molar teeth are as wide as palm- oil pits in Ijesaland,
O elephant, lord of the forest, respectfully called Oriiribobo
O elephant whose teeth are like shafts,One tooth of his a porter's load,
O elephant fondly called Otiko,Who has a beast- of burden's proper nock,
O elephant, whom the hunter at other times aces face to face.
O elephant, whom the hunters at other times seas from the rear.
Beast who caries mortars and yet walks with a swaggering gaint.
Primeval leper, animal treading ponderously.

QUESTIONS

(a) What **type o**f oral poem is this? **(2mks)**

……

……

(b) Identify, illustrate and give the effect of any **three** features of style used in the poem.**(6mks)**

……

……

……

……

……

……

(c) How is the elephant **portrayed** in the poem? **(2mks)**

……

……

(d) What is the **persona's attitude** towards the elephant? **(2mks)**

……

……

……

(e) Identify any **two** economic activities of the community from which this poem is derived. **(4mks)**

……

……

……

……

(f) Identify the main **theme** of this poem. **(2mks)**

……

……

(g) Explain any **two** problems you may encounter when collecting material for this genre. **(2mks)**

……

……

……

……

……

4. GRAMMAR

a). Rewrite the following sentences as **instructed** **(2mks**

1. My examination results were released only after I had cleared the fee balance.***(Begin: Not until.....)***

2.If I were the Minister for National Security, I would ensure tighter security checks at the borders. (**Begin:** Were I)

3.They had handled the case so carelessly that we were not satisfied. (**Begin** : So ...)

4. "I shall expect to see you next Wednesday," the teacher told the student.***(Write in reported speech.)***

b).Use the **correct form** of the word in brackets in the sentences that follow. **(3mks)**

i. The modern world today has many …….forms of communication (s**ophistication**)

ii The gas was stored in a ……..container (**pressure**)

iii. Do not wait for the bus, it comes to this town very …….. (regular).

c). Give the **meaning** of the underlined **idiomatic expression**. **(2mks)**

(i) The teacher asked him to stop beating about the bush.

(ii) The politicians asked them to cross the bridge when they reach it.

d). Choose the correct **pronoun** in the following sentences. **(2mks)**

a) She knew allbout my friend and _____(I/me)

b) What would you do if you are_____? (she/her)

e).Complete each blank space in the following sentences with **appropriate choice** from:

(few, a few, little ,a little, some) **(2mks**

a) If there is tea left in that flask, I would like to have_____

b) Since animal proteins are very expensive_____people eat enough

f) .Replace the underlined word with the correct **phrasal verb**. **(2marks)**

1.The class teacher promised to <u>solve</u> the problem. (sort)

2.He tried all his dirty tricks on us but he did not <u>succeed</u> . (come)

3. The nurse couldn't **<u>tolerate</u>** the noise

4.The mayor assumed that the problem had been **<u>got rid of</u>**.

<u>**g**).Rewrite the sentences below as to remove **gender bias**</u>. **(1mks)**

1. The headmistress advised her girls to keep off drugs.

2. The father left his sons and daughters a big estate.

FORM 3 ENDTERM 2 EXAMS

SERIES 1

101/3

ENGLISH

PAPER 3

(Imaginative Compositions and Essays Based on Set Texts)

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

(a) *Write your name and index number in the spaces provided above.*
(b) *Sign and write the date of the examination in the spaces provided above.*
(c) *Answer **three** questions in this question paper.*

FOR EXAMINER'S USE ONLY

Questions	Maximum Score	Candidate's Score
1	20	
2	20	
3	20	
	TOTAL	

1. **COMPULSORY: IMAGINATIVE COMPOSITION (20 MARKS)**

Either,

a) Write a story beginning with the words:

I had not thought it was a big problem until I got involved **…….**

Or

b) Discuss the measures you would take to curb flooding in our Kenyan urban areas.

2.**The Compulsory Set Text.**

Retrogressive leadership practices can lead to disorientation among members of the society. Using the **play, *The Samaritan,* by John Lara** for references, write a composition justifying this statement. **(20 marks)**

3. THE COMPULSORY SET TEXT

"Greed is dehumanizing." Drawing your illustrations from **Fathers of Nations** by **Paul B. Vitta** write an essay supporting this statement. **(20 marks)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

102/1

KISWAHILI

PAPER 1

(INSHA)

TIME: 1¾ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Cheti cha Kuhitimu Elimu ya Sekondari Tathmini ya Pili

MAAGIZO

1. *Andika Insha m**bili***
2. *Swali la **kwanza** ni la **lazima***
3. *Chagua insha nyingine kutoka hizo tatu zilizobaki*
4. *Kila insha isipungue maneno **400***
5. *Kila insha ina alama **20***

SWALI	TUZO
1	
2	
3	
4	
JUMLA	

MASWALI

1) Kamati inayoshughulikia usalama barabarani imekuwa na mkutano hivi karibuni.Ukiwa katibu wa kamati hiyo , andika kumbukumbu za mkutano huo **(AL20)**

2) Ufisadi umechangia pakubwa kuwepo kwa maendeleo duni nchini. Jadili **(AL 20)**

3) Andika insha inayoafikiana na methali Baniani mbaya kiatu chake dawa**.** **(al 20)**

4) Andika insha itakayomalizikia kwa "…ndiyo maana nimeapa ya kwamba usiku siwezi nikamfungulia mlango yeyote nisiyemjua **(AL 20)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

102/2

KISWAHILI

PAPER 2

(LUGHA)

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Cheti cha Kuhitimu Elimu ya Sekondari Tathmini ya Pili.

MAAGIZO

- ✓ *Karatasi hii ina sehemu nne. Ufahamu, Ufupisho, matumizi ya lugha na Isimu jamii.*
- ✓ *Jibu maswali yote katika nafasi uliziachiwa.*

KWA MATUMIZI YA MTAHINI PEKEE

	Upeo	Alama
1. Ufahamu	15	
2. Ufupisho	15	
3. Matumizi ya lugha	40	
4. Isimujamii	10	
Jumla	80	

1. ***Soma taarifa ifuatayo kisha ujibu maswali.***

Habari kuwa watoto chini ya miaka mitatu ‘huwindwa’ kitandani na kuraushwa na wazazi wao waende shuleni mwendo wa saa kumi na moja asubuhi ni za kusikitisha.

Kwa mujibu wa ripoti za wataalamu wa elimu ya watoto wachanga (ECD), watoto hao hutakikana kuwa darasani kabla ya saa kumi na mbili asubuhi.

Wanapowasili wao huanza kufukuza ratiba ya masomo ambayo huwapatia muda mfupi mno wa kula, kucheza, kupumzika na hata kuchunguza afya na usalama wao.

Badala ya kuondoka mapema kuelekea nyumbani, wengi wao hufika saa za usiku pamoja na wazazi wao wakitoka kazini. Wanapowasili nyumbani wanapaswa kuoga na kupata chakula cha jioni kwa pupa ili wafanye mazoezi waliyopewa na walimu wao.

Mazoezi hayo huwa ya masomo yote matano huku kila somo likiwa na zaidi ya maswali thelathini. Badala ya kupumzika mwishoni mwa juma, watoto hao huhitjika kuhudhuria shule siku nzima ya Jumamosi. Jumapili wanatakiwa Kanisani na hali hii hujirudia mpaka muhula umalizike. Ikiwa ulidhani watapewa nafasi ya kupumzika wakati wa likizo , umekosea kwa sababu watoto hao huhitajika kuhudhuria shule. Hili limekuwa likiendelea hata baada ya Wizara ya Elimu kupiga marufuku kusomesha wakati wa likizo.

Wazazi-hasa wale wanaofanya kazi mijini- wamekuwa wakiunga mkono mtindo huu kwa sababu unawaondolea mzigo wa malezi na gharama ya kuwaajiri walezi.

Wataalamu wanasema matokeo ya hali hii ni watoto **wakembe** wenye afya na **maadili** mabaya kutokana na kuchanganyishwa akili na walimu wanaowataka wajue kila kitu wakiwa na umri mdogo.

Kuwashinikiza watoto wakembe wahudhurie shule na zaidi ya hayo wajue kila kitu kuna madhara mengi. Kwanza kabisa, kuraushwa kwa watoto macheo waende shule kunawanyima fursa ya kulala na kupumzika. Utafiti unaonyesha kuwa watoto wanahitaji kulala na kupumzika kwa zaidi ya saa 12 kwa siku. Hii ina maana kuwa mbali na muda mfupi wanaolala na kupumzika mchana kutwa, watoto wanapaswa kutumia usiku mzima kwa usingizi.

Hii huwasaidia kukua wakiwa na afya nzuri hasa kiakili. Matokeo ya kuwarausha watoto hao waende shule saa hizo huwafanya wakose furaha mbali na kuwafanya wachanganyikiwe kiakili.

Pili, kuwalazimisha watoto wakae darasani kuanzia saa kumi na mbili asubuhi hadi saa kumi na mbili jioni huwa kunawanyima fursa ya kucheza na kutangamana. Wataalamu wa afya ya watoto wanapendekeza kuwa watoto wachanga wanapaswa kucheza ili viungo vya miili yao kama moyo, akili, mapafu na kadhalika vifanye kazi vizuri.

Kinyume na watu wazima ambao hufanya kazi nzito nzito na kuwawezesha kufanya mazoezi, watoto huwa hawafanyi kazi hizo. Wazazi na walimu wanapaswa kufahamu kuwa kazi ya watoto ni mchezo na wana kila haki ya kupewa furaha ya kucheza wakiwa shuleni na hata nyumbani.

Tatu, wazazi wengi ambao hufurahia kuwaachia walimu jukumu la kuwalea watoto wao huku wao wakiwa kazini huwa wanasahau kuwa sio kila mwalimu ana maadili yanayopaswa kuigwa na mwanawe. Ingawa tunawatarajia walimu wawe mifano bora ambayo inaweza kuigwa na kila mtu, ukweli ni kwamba baadhi ya walimu hawajui maana wala hawana maadili. Hatari ni kwamba watoto **wakembe** husoma kwa kuiga wakubwa wao na ikiwa walimu wanaoshinda nao shule

wamepotoka kimaadili, kuna uwezekano mkubwa wa watoto hao kupotoka pia. Hii ndiyo sababu wazazi wengi wamekuwa wakilalamika kuwa wanawao tabia mbaya ambazo hawaelewi zilipotoka.

Kila mzazi anayejali maisha ya mwanawe anapaswa kutekeleza jukumu lake la kumlea na kumwelekeza jinsi anavyotaka akue. Ni kinaya kuwa wanawatarajia wanawao wawe na tabia na maadili kama yao ilhali hawachukui muda wa kukaa nao na kuwaelekeza.

Nne, kuwawinda, kuwaamsha, kuwaosha na kuwalazimisha watoto waende shule kila siku hata ingawa hawataki huwa kunawafanya wawe wategemezi wasioweza kujipangia na kutekeleza mambo kivyao.

MASWALI.

(a) Ipe taarifa anwani mwafaka**.** **(alama 2)**

……

(b) Mwandishi anatoa maoni gani kuhusu ratiba ya masomo**?** **(alama 2)**

……

……

……

(c) Eleza athari za mfumo wa elimu unaoangaziwa hapa**.** **(alama 3)**

……

……

……

……

(d) Ni ushauri upi unaotolewa kwa wazazi **?** **(alama 2)**

……

……

……

(e)Taja mbinu zozote **mbili** za lugha alizotumia mwandishi **(alama 2)**

……

……

……

(f) Eleza **maana** ya maneno haya kama yalivyotumiwa katika taarifa. **(alama 4)**

(i) '**huwindwa' kitandani**

(ii) **Maadili**

(iii) **Kuwashinikiza**…

(iv) **Wakembe**…

2. <u>Soma taarifa kisha fupisha kwa mujibu wa maswali yafuatayo.</u>

Uwezo wa kuyakumbuka mambo ni hazina kuu kutoka kwa mtu yeyote yule aliye hai. Uwezo huu wa kukumbuka ni mojawapo ya shughuli changamano za ubongo. Ubongo wa mwanadamu hutekeleza shughuli hii kwa namna tatu. Kwanza ubongo hunasa jambo kisha huliihifadhi. Baadaye huanzisha mfumo wa kutoa kilicho hifadhiwa. Ubongo ukiathirika kwa namna yeyote katika moja wapo ya njia hizi, basi uwezo wa kuyakumbuka mambo huvurugika.

Ingawa inaaminika kuwa uwezo wa kukumbuka hurithishwa toka kizazi kimoja hadi kingine, wataalamu wa maswala ya kiakili wanabaini kuwa uwezo huu unaweza kuimarishwa. Uimarishaji huu huhitajika mikakati madhubuti.

Njia mojawapo ya kustawisha uwezo wa kukumbuka ni kupitia kwa lishe. Vyakula vilivyosheheni vitamini B vyenye amino asidi husaidia kuimarisha uwezo wa kukumbuka. Vyakula kama hivi ni mboga, nyama (hasa maini), bidhaaa za soya, matunda, maziwa, ,bidhaa za ngano, samaki, pamoja na mayai. Vyakula vingine muhimu katika ustawishaji huu ni vile vyenye madini ya chuma. Madini haya huwezesha usambazaji wa hewa katika ubongo kwa wepesi. Vyakula ambavyo vina madina haya ni mboga za kijani, mawele, ndengu, soya, matunda kama maembe, ufuta (simsim) pamoja na nyama, hasa maini na mayai.

Ubongo wa mwanadamu aliye hai hufanya kazi kila wakati awe macho au amelala. Utendaji kazi wake huendeshwa na glukosi mwilini. Kwa hivyo, vyakula vyenye sukari hii ni muhimu kuliwa. Hata hivyo, lazima mtu awe mwangalifu na kuhakikisha kuwa mwili una kiwango cha sukari kisicho hatarisha maisha. Haya yanawezekana kwa kula vyakula vyenye nyuzinyuzi kama vile mboga na matunda.

Njia ya pili ni kupiga marufuku vileo kama pombe na nikotini. Vileo hivi huathiri utaratibu wa kunasa, kuhifadhi na kutoa yaliyo ubongoni.

Iwapo mtu ana tatizo la kuyakumbuka majina ya watu, ni muhimu kufanya mazoezi ya kusikiliza kisha kurudia majina hayo wakati wa mazungumzo. Ni bora kulihusisha

jina na sura
ya mtu. Kwa njia hii ubongo utanasa jina na kile kinacholengwa.

Woga na kuvurugika kiakili ni mambo mengine tunayopaswa kuepuka kila wakati. Ni kawaida mtu kupata woga wakati anapokabili jambo asilokuwa na uhakika na matokeo yake kama mtihani au mahojiano. Lakini anapaswa kuwa makini. Woga huo usikiuke mpaka na kumvuruga kiakili. Vurugu hizi huathiri kilichohifadhiwa ubongoni na pia namna ya kukitoa.

Halikadhalika, mwili wenye siha nzuri huhakikisha kuwa ubongo ni timamu. Wataalamu wengi wa siha wanakubali kuwa na mazoezi ya kunyoosha viungo hustawisha ubongo na hivyo kuhakikisha kuweko kwa uwezo wa kukumbuka mambo. Ni muhimu kuwa na taratibu ya kunyoosha viungo kila wakati. Fauka ya hayo, mazoezi ya kiakili, kama vile kusoma makala yanayovutia, kujaza mraba na michezo mingine kama mafumbo, vitenzi ndimi ni muhimu katika kustawisha uwezo wa kukumbuka.

Jamii ya watu wenye uwezo kuyakumbuka mambo ni ya jamii iliyopiga hatua kimaendeleo. Ni jukumu la kila mmoja wetu kuimarisha uwezo wa kukumbuka kila wakati.

MASWALI:

a) Kwa maneno 60 – 65 fupisha mchango wa chakula katika uimarishaji wa uwezo wa kukumbuka.(alama 6 , 2 mtililiko) **Matayalisho**

……

……

……

……

……

……

……

……

……

Nakala safi

……

……

……

……

……

……

……

……

……

……

b) Fupisha aya tatu za mwisho kwa maneno 80 – 90 **(alama 7)**

Matayarisho

……

……

……

……

……

……

……

……

……

……

……

……

Nakala safi

……

……

……

……

……

……

……

……

……

……

……

……

……

3. **MATUMIZI YA LUGHA**

(a) **Andika sifa bainifu za sauti.** **(alama 2)**

(i) e:-

(ii) n:-

.

(b) Eleza maana ya :- **(alama 2)**

(i) Kiimbo.

(ii) Shadda.

(c) Tunga sentensi moja moja kudhihirisha ngeli zifuatazo:- **(alama 2)**

(i) U-U

(ii) Pokomo /Pa-ku-mu

(d) Unda kitenzi kimoja kutokana na nomino '**Mtubia**" **(alama 2)**

……

……

(c) Eleza matumizi mawili ya kiambishi '**ku**' **(alama 2)**

……

……

……

(f) Tunga sentensi ya maneno manne ambayo ina sehemu zifuatazo. Kielezi cha namna, kivumishi,kitenzi na jina **(alama 2)**

(g) Yakinisha sentensi ifuatayo; **(alama 2)**

Mvua haijanyesha vizuri msimu huu.

(h) Onyesha matumizi mawili mawili ya alama zifuatazo:- **(alama 2)**

(a) Alama ya mshangao

(b) Mshazari

(i) Tunga sentensi sahihi ukitumia –wa- katika kauli ya kutendeana **(alama 2)**

(j) Andika udogo wa sentensi:- **(alama 2)**

Ndama wa ng'ombe yule ameuzwa.

(k) **Onyesha tofauti ya vitate vifuatavyo kwakuvitungia sentensi** **(alama 2)**

(i) Dhamani

(ii) Thamani

(l) **Kanusha sentensi ifuatayo katika wingi** **(alama 2)**

Ningalikuwa na pesa ningalinunua gari

[m] **Tumia neno "shujaa" katika sentensi kama**:- **(alama 2)**

(i) Kivumishi

(ii) Kielezi.

(n) Huku ukitumia mifano mwafaka, eleza tofauti ya sentensi sahili na ambatano **(alama 4)**

(o) **Onyesha aina za viambishi katika sentensi hii**: **(alama 2)**

Nitajisomea

(p) **Andika katika usemi wa taarifa:-** **(alama 2)**

Tutaanza mashindano kesho, Mwalimu alimwambia mwanafunzi.

(q) **Eleza maana mbili ya sentensi:-** **(alama 2)**

Tumetengeneza barabara

(r) **Tumia mifano mwafaka kueleza aina za mofimu** **(alama 2)**

(s) **Changanua kwa njia ya mishale**

Mama analima shambani.

4. ISIMU JAMII

Soma mzungumzo yafuatayo kisha ujibu maswali *:*

A : Ohh, dada Naomi
B : Dada Ruth (anamsogea kwa bashasha wanakumbatiana). Ahh Mungu asifiwe!
A: Asifiwe sana
B: Ehh dadangu, miezi ...mingi...sijakuona
A: dada wee...Nilitumwa huko kusini ...Kuwahubiria watu injili (mtuo mdogo)singeweza kukata...
B: Ehh, usiwe kama Yona
A: Habari ya siku nyingi?
B; Nzuri Mungu bado ameendelea kunibariki
A: Amen!
B: Nimeendelea kuiona neema yake
A: Amen! Asifiwe Bwana
B: Halleluya
A: Ni Mungu wa miujiza!
B : Amen. Hata nami nimeona neema yake
Bado niko imara katika wokovu katika siku hizi za mwisho
A : Amen !
B : Ni Mungu wa ajabu kweli !
A : Nilikumbana na matatizo lakini nikategemea sala
Kama Paulo na sila… Na nikashinda (anatua). Sikuweza kumpa
shetani nafasi…maana ameshindwa
B : Ameshindwa kabisa

Maswali:-

(i) Hii ni sajili ya wapi ? **Fafanua** **[alama 2]**

……

……

……

(ii) Taja na ueleze sifa za sajili hii **[alama 6]**

……

……

……

……

……

……

……

……

……

……

(iii) Taja mambo **mawili** muhimu yaliyosaidia katika maenezi ya Kiswahili Afrika mashariki na kati**.** **[Alama 2]**

……

……

……

……

FORM 3 ENDTERM 2 EXAMS

SERIES 1

102/3

KISWAHILI

PAPER 3

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Hati ya Kuhitimu Kisomo cha Sekondari

Karatasi ya 3

FASIHI

Muda: Saa 2½

MAAGIZO

a) *Jibu maswali manne pekee.*
b) *Swali la kwanza ni la lazima.*
c) *Maswali hayo mengine matatu yachaguliwe kutoka sehemu nne zilizobaki; yaani: Hadithi fupi, Ushairi, Tamthilia na Fasihi Simulizi.*
d) *Usijibu maswali mawili kutoka sehemu moja.*
e) *Watahiniwa ni lazima wahakikishe kwamba kurasa zote za karatasi hii zimepigwa chapa sawasawa na kuwa maswali yote yamo.*
f) *Majibu yaandikwe kwa lugha ya Kiswahili*

For Marking Schemes Contact 0746-222-000 / 0753-222-000

SEHEMU A USHAIRI (alama 20)

SWALI LA LAZIMA

USHAIRI:

Soma shairi hili kasha ujibu maswali yanayofuata.

SABUNI YA ROHO

Ewe tunu ya mtima, kwa nini wanikimbia?
Ndiwe suluhu la zama, waja wa kukimbilia,
Waja wana kutazama, madeni wakalipia,
Ndiwe sabuni ya roho, ndiwe mvunja mlima.

Ndiwe mafuta ya roho, walisema wa zamani,
Utanunua majoho, majumba na nyumbani,
Umezitakasa roho, umekuwa mhisani,
Ndiwe sabuni ya roho, ndiwe mvunja mlima.

Matajiri wakujua, wema wako wameonja,
Nguo zao umefua, wakupata kwa ujanja,
Sura zao mefufua,wanazuru kila Nyanja,
Ndiwe sabuni ya roho, ndiwe mvunja mlima.

Ndiwe mvunja mlima, onana na maskini,
Watazame mayatima, kwao kumekua wa duni,
Wabebe waliokwama, wainue waliochini,
Ndiwe sabuni ya roho, ndiwe mvunja mlima.

Ndiwe mvunja mlima, wapi kupata uwezo?
Umezua uhasama, waja kupata mizozo,
Ndiwe chanzo cha zahama, umewaitia vikwamizo,
Ndiwe sabuni ya roho, ndiwe mvunja mlima.

Umevunja usuhuba, familia zazozana,
Walokuwama habuba, kila mara wagombana,
Roho zao umekaba, majumbani wa chinjana,
Ndiwe sabuni ya roho, ndiwe mvunja mlima.

Nakutafuta kwa hamu, sabuni unirehemu,
Sinilipue ja bomu, sije kawa marehemu,
Niondoe jehanamu, ya ufukara wa sumu,
Ndiwe sabuni ya roho, ndiwe mvunja mlima.

Naondoka wangu moyo, nikuitapo itika,
Fulusi wacha uchoyo, tatua yalonifika,
Nichekeshe kibogoyo, name nipate kuwika,
Ndiwe sabuni ya roho, ndiwe mvunja mlima.

Maswali

a) Mshairi anaongea na nani katika shairi hili? **[alama1].**

b) Taja majina mengine matatu aliyopewa huyu anayesemeshwa**[alama3].**

c) Anayezungumziwa katika shairi hili anasababisha balaa gani**?[alama2]**

d) Mshairi anatoa mwito gani kwa mwenziwe**?[alama4]**

e) Fafanua maudhui ya ubeti wa sita**.[alama2]**

f) Mbinu kadha za uandishi zimetumiwa na msanii kuwasilisha ujumbe wake. Taja mbinu zozote tatu na uzitolee mifano katika shairi**.[alama3]**

g) Fafanua maana ya : sura zao 'mefufua, wanazuru kila nyanja'**[alama1]**

h) Andika ubeti wa saba katika lugha nathari**.[alama4]**

SEHEMU B: TAMTHILIA (alama 20)

TAMTHILIA YA BEMBEA YA MAISHA

2) Kwa kurejelea mifano mbalimbali thibitisha namna ndoa katika tamthilia ya **Bembea ya maisha** zimemulika uhalisia wa jamii za kiafrika. **(alama20)**

3) "Lakini nilivyosema, Mungu hamwachi mja wake.."

a) Eleza mutadha wa dondoo hili **(alama4)**

b) Tambua sifa tatu za msemewa **(alama3)**

c) Eleza umuhimu wa msemaji wa maneno haya katika kukuza vipengele vifuatavyo:
Ploti **(alama2)**
Maudhui **(alama4)**

d) Kwa kurejelea tamthilia nzima eleza ukweli wa kauli "Mungu hamwaachi mja wake." **(alama7)**

SEHEMU C: HADITHI FUPI (alama 20)

NDOA ni taasisi iliyokuzwa katika hadithi **fadhila za punda.** Fafanua **alama 20**

AU

“mwanangu, nizike duniani unifunike…”

i) Fafanua muktadha wa maneno haya. **(al.4)**

ii) Taja na utolee mfano mbinu moja ya kimtindo inayojitokeza katika dondoo hili **(al.2)**

iii) Ukirejelea hadithi ya" Mzimu wa Kipwerere," Fafanua jinsi imani katika mambo ya kichawi yamejikita katika jamii. **(al.14)**

SEHEMU D: FASIHI SIMULIZI. (alama 20)

Jibu swali la 6

6. Soma utungo ufuatao kasha ujibu maswali.

Ndimi mwimo mdumishaji ukoo,
Ndimi ndovu mtetemesha ardhi,
Aliyegigang vita, ukoo kiauni,
Ziliporindima zangu nyayo
E dui alinywea, mafahali na mitamba akatukabidhi.
Kwenye misitu sikuwa na kifani
Paa na hata visungura
Vilijikabidhi kwangu
Kwa kuinusatumata
Nani aliyewahi
Ngomani kunifiku?
Makoo hawakunisifu, wakalilianikaha?
Kwenye Nyanja zamichuano
Nan iangethubutu, ndoro kunipigia?
Sikuwa bwaga chini, kwaya ngumaozi, hata kabla hatujavaana?

i. Andika aina ya sifo hii na utaje sifa za kembili. **(alama 4)**

ii. Bainisha shughuli mbili za kiuchumi na mbili za kijamii zinazoendelezwa n ajamii inayosawiriwa na utanzu huu. **(alama 5)**

iii. Eleza mambo matano ambayo yanaweza kuzingatiwa ili kufanikisha uwasilishaji wa utungo huu. **(alama 5)**

iv. Eleza faida sita za matumizi ya nyimbo katika uwasilishaji wa ngano**. (alama 6)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

443/1

AGRICULTURE

PAPER 1

TIME: 2 HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

- *This paper contains three 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 spaces provided after the questions*

SECTION A (30MKS)

1. Name any two physical characteristics used to classify soil. **(2mks)**

……

……

2. Name four types of livestock farming. **(2mks)**

……

……

……

……

3. State four human factors that affect agriculture. **(2mks)**

……

……

……

……

4. What is the importance of seed dressing in crop production. **(1mk)**

……

……

5. State two conditions that may lead to sub-division of land. **(2mks)**

……

……

6. Farmer growing maize on 10 hectares is to dress it with sulphate of ammonia (20% N) at the rate. of 120kg of S.A for hectare. AT the local market, S.A is available in 50Kg bag selling at 1500/- per bag. Calculate the amount of S.A the farmer needs to top dress his crop of maize. **(3mks)**

7. Define the following terms. **($1\frac{1}{2}$mks)**

(i) Nursery bed

(ii) Seedling bed

(iii) Seedbed

8. State two examples of nitrogenous fertilizers. **(2mks)**

……

……

9. State three disadvantages of broadcasting seeds. **($1\frac{1}{2}$mks)**

……

……

……

10. State four deficiency symptoms of nitrogenous fertilizers. **(2mks)**

……

……

……

……

11. Give four conditions of the land which may make it necessary to carry out reclamation practices. **(2mks)**

……

……

……

……

12. State two mechanical methods of separating soil particles according to size during soil analysis. **(2mks)**

……

……

13. Give four pieces of information contained in a land title deed. **(2mks)**

……

……

……

……

14. State four effects of post election violence in 2008 to agriculture production. (**2mks)**

……

……

……

……

15. State two reasons why shifting cultivation has become unpopular in Kenya. **(1mk)**

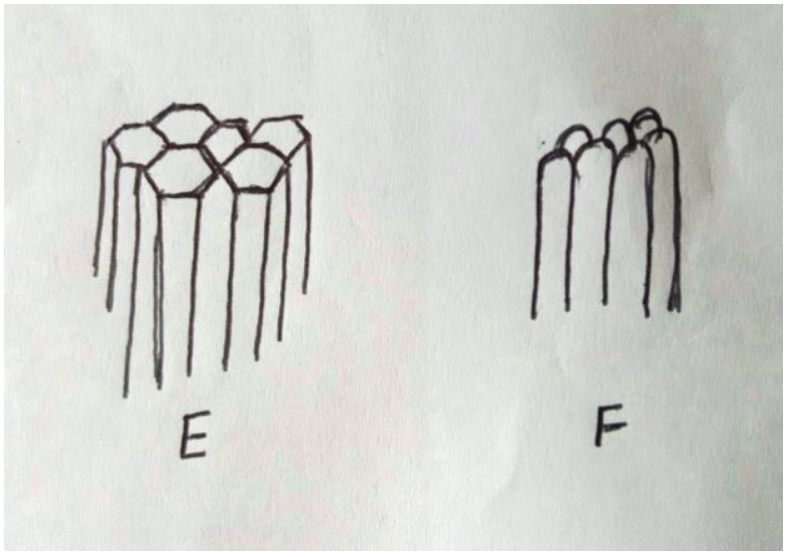
……

……

……

SECTION B

16. The diagram labeled E and F illustrate some soil structure. Study them carefully and answer the questions that follow.



(i) Identify the soil structure E and F. **(1mk)**

……

……

(ii) List down two field practices which can destroys the structures shown above. **(2mks)**

……

……

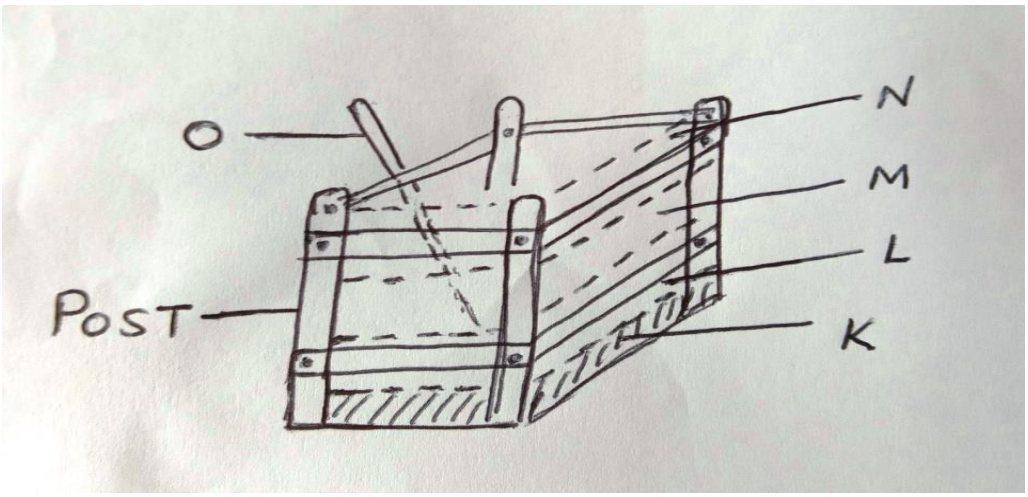
……

(iii) Give two characteristic of a fertile soil. **(2mks)**

……

……

17. The diagram below illustrate a compose heap. Study it carefully.



(a) Name the parts labeled **K – N** **(2mks)**

K

L

M

N

(b) State one use of each of the parts labeled K, M, N and O **(2mks)**

K

M

N

O

(c) List four reasons why compost manure is not popularly used in the farm. **(2mks)**

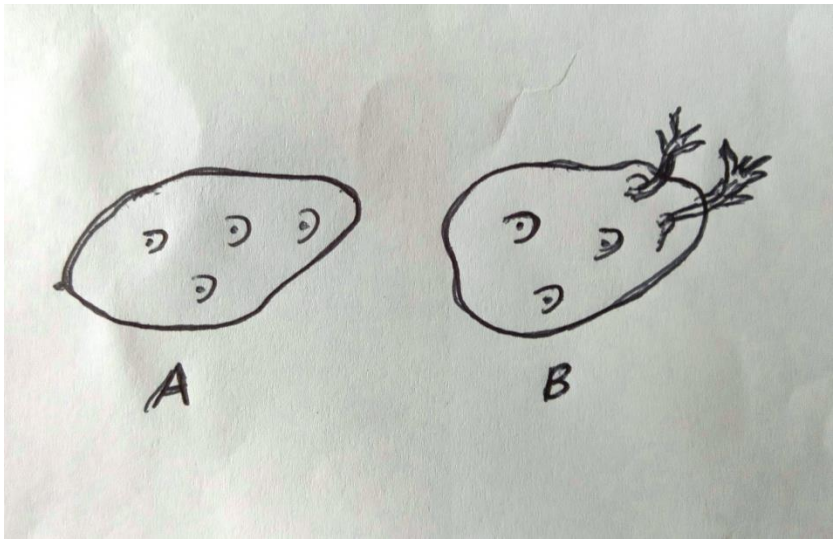
……

……

……

……

18. Study the diagrams below.



a) Name the process used to test Irish potatoes in readiness for planting. **(1mk)**

……

b) Which of the two is suitable for planting? **(1mk)**

……

……

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

……

……

d) Give two reasons why maize need to be earthed. **(2mks)**

……

……

……

19. (a)State the two types of the multiple stem pruning system in coffee. **(2mks)**

……

……

……

(c) Name any two carrot varieties planted by farmers. **(2mks)**

……

……

SECTION C (40MKS)

20.(a) Discuss the factors that should be put into consideration while choosing suitable implements for primary cultivation. **(8mks)**

(b)Describe reasons for drainage as a method of land reclamation in crop production. **(10mks)**

(c)State two factors that influence mass wasting **(2mks)**

21.a) Discuss ways in which nitrogen is removed from the atmosphere. **(8mks**

b) Discuss factors to consider in choosing seed rates **(10mks)**

c) State two main methods of planting **(2mks)**

22.a) Mention the procedure involved in harvesting fish. **(5mks)**

b) Discuss four types of soil erosion by water. **(8mks)**

c) Mention various biological measures employed in soil and water conservation. **(7mks)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

443/2

AGRICULTURE

PAPER 2

TIME: 2 HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES:

- *Write your **name** and **index number** in the space provided.*
- ***Sign** and **write the date** of examination in the space provided*
- *This paper consists of three section **A, B** and **C**.*
- *Answer all questions in section **A** and **B**.*
- *Answer any two questions in section C*

FOR EXAMINERS USE ONLY

SECTION	QUESTINS	MAX SCORE	CANDIDATES SCORE
A	1-16	30	
B	17-20	20	
C	21	20	
	22	20	
	23	20	
TOTAL		80	

SECTION A (30 Marks)

Answer all questions in this section

1. Name **three** methods that are used in selection of breeding stock in livestock production.

(½mks)

……

……

……

2. State **three** signs of heat in pigs. **(1 ½ mks)**

……

……

……

3. State **two** functions of a queen bee in a colony**.** **(1mk).**

……

……

4. Name **two** breeds of sheep kept for dual purpose. **(2mks)**

……

……

5. Give any **four** advantages of artificial insemination. **(2mks)**

……

……

……

6. State **four** methods of identification in livestock. **(2mks)**

……

……

……

7. Give reasons why roughage is necessary in ruminant animals. **(2mks)**

……

……

……

8. What is a notifiable disease? **(1/2mk)**

……

……

9. State **four** qualities of livestock ration. **(2mks)**

……

……

……

……

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

(i) Flushing

(ii) Crutching

(iii) Ringing

(iv) Raddling

11. A part from transmission of disease, give **three** harmful effects of ticks on cattle. **(1½mks)**

……

……

……

12. State any **four** factors considered when siting farm structures **(2mks)**

……

……

……

……

13. State **four** major categories of farm tools and **equipment** **(2mks)**

……

……

……

……

14. State **two** reasons for proper care and maintenance of farm tools and equipments **(1mks)**

……

……

……

15. Give the functional difference between a rip saw and a cross cut saw. **(1mk)**

……

……

……

16. Differentiate between a broiler and a capon **(1mk)**

……

……

17. State **two** advantages of using embryo transplant. **(1mks)**

……

……

……

18. Give **four** reasons for seasoning timber before use. **(2 marks)**

……

……

……

……

……

19. State any **four** reasons for castrating a goat. **(2mks)**

……

……

……

……

……

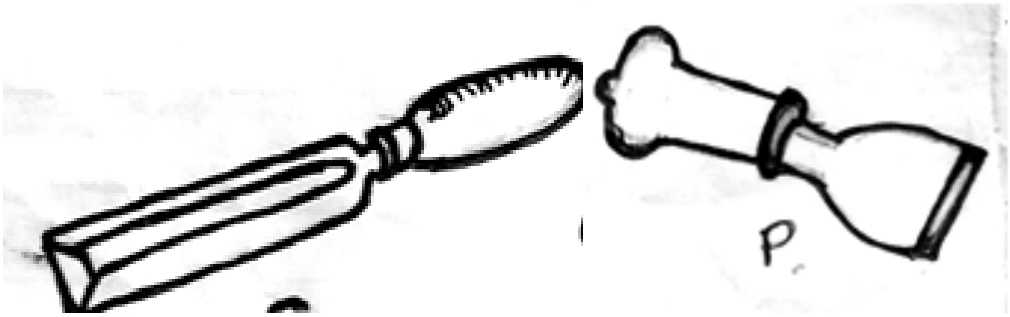
SECTION B (20 marks)

Answer all questions in this section

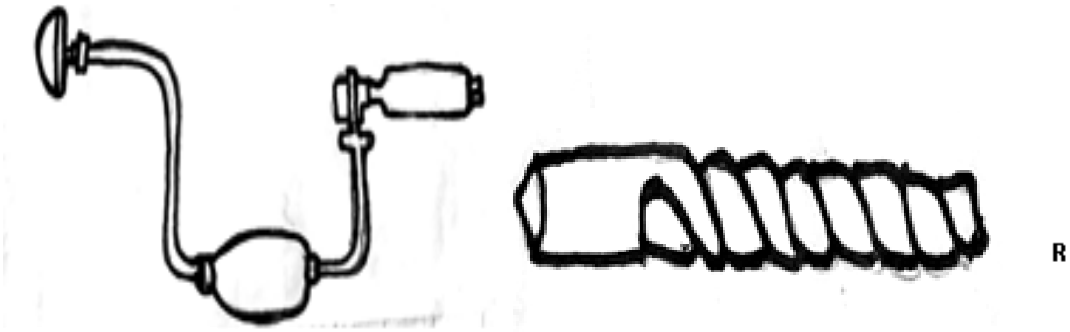
20. If the maize meal contains 6% Digestible Crude Protein (DCP) and Fish meal contains 64% DCP, calculate the amount of each feed stuff in kilograms, required to Prepare 200kg of chick mash containing 18% DCP **(Show your working)** **(4mks)**

21. Study the farm tools below and answer the questions that follow

S



Q



R

(a) Identify the farm tools labeled S, P, Q and R **(2mks)**

S

P

Q

R

(b) State the use of each of the tools labeled S and P **(1mk)**

S

……

……

P

……

……

(c) Give **two** safety precaution that should be taken when using the pair of tools Q and R above **(1mk)**

……

……

……

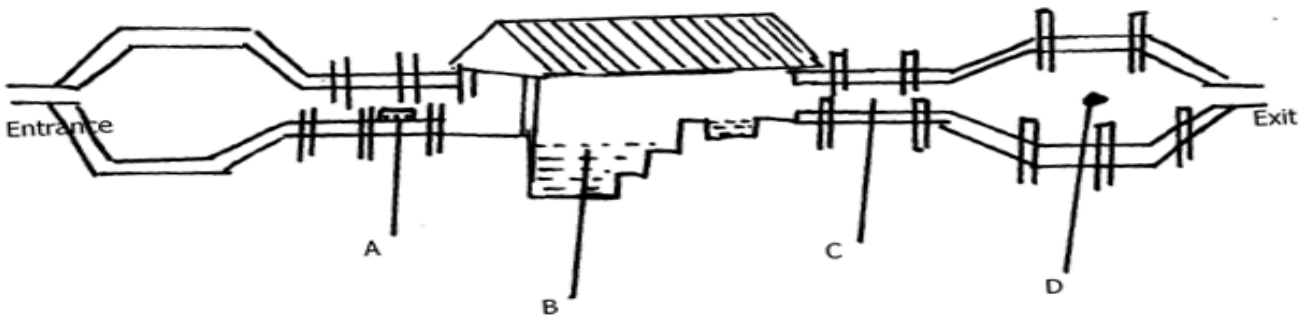
(d) State **two** maintenance practices which should be carried out on the tool Q **(1mk**

……

……

……

22. The diagram below shows parts of a plunge dip.



i) Name parts A, B, C and D **(2mks)**

A

B

C

D

ii) Give **two** reasons why cattle are held for some time in part C. **(2mks)**

……

……

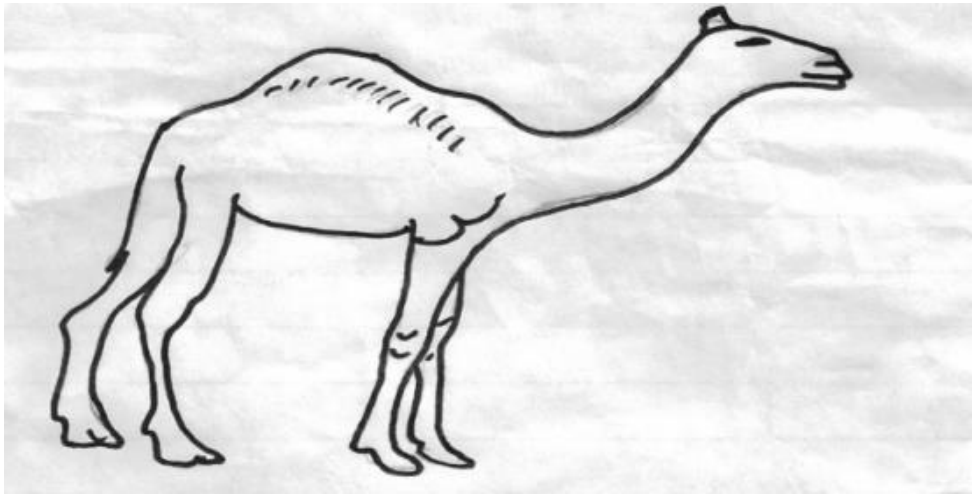
……

iii) State **two** maintenance practices carried out on part B. **(2mks)**

……

……

23. Study the illustration of a camel below and answer the questions that follow



a) Name the species of camel shown **above** **(1mk)**

……

(b) Name the environmental condition under which the camel above survives better**(1mk)**

……

(c) Give two reasons which make it possible for the livestock to survive in such environment **(2mks)**

……

……

……

(d) Name another species of camel other than the one **above** **(1mk)**

……

SECTION C (40MARKS)

Answer any two questions

24 (a) Explain factors to consider during selection of a breeding stock. **(10mks)**

(b) Give reasons for maintaining a healthy stock on the **farm** **(10mks)**

25 (a) Explain **ten** effects of strong wind on crop production. **(10mks)**

(b)Describe **ten** cultural or biological methods of controlling soil erosion**.** **(10mks)**

26 a)Draw the differences between the digestive system of a ruminant and a non- ruminant **(5mks)**

(b) Explain **five** functions of water in nutrition **(5mks)**

(c) State **ten** safety precautions which should be taken when using Workshop tools in order to prevent injury **10mks)**

FORM 3 ENDTERM 2 EXAMS

SERIES 1

565/1

BUSINESS STUDIES

PAPER 1

TIME: 2 HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTURCTIONS TO CANDIDATES

a) *Write your name and adm. no in the spaces provided above.*

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

c) *Answer ALL the questions.*

d) *All answers should be written in the spaces provided in this booklet.*

FOR EXAMINER'S USE ONLY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Candidate's score														

Question	15	16	17	18	19	20	21	22	23	24	25
Candidate's score											

Answer ALL the questions.

1. Define the following terms as used in Business Studies. **(4 mks)**

(i) Economics……

……

(ii) Entrepreneurship……..

……..

(iii) Opportunity cost……...

……..

(iv) Scale of preference……...

……..

2. Highlight four features of a good filling system. **(4 mks)**

……

……

……

……

3. Outline four importance of a warehouse to a consumer. **(4 mks)**

……

……

……

……

……

4. Outline four benefits of a business plan. **(4 mks)**

……

……

……

……

……

5. Highlight <u>four</u> functions of an entrepreneur**.** **(4mks)**

……

……

……

……

6. State four importance of a balance sheet **(4 mks)**

……

……

……

……

7. The following information was extracted from the books of Dawida businesses enterprise for the year ended 30th June 2000.

Capital as at 30th June, 2000	640,000
Capital as at 1st July 1999	420,000
Drawing for the year	180,000
Net profit for the year	140,000

Determine the additional capital during the year. **(5 mks)**

8. Highlight <u>four</u> barriers to effective communication **(4 mks)**

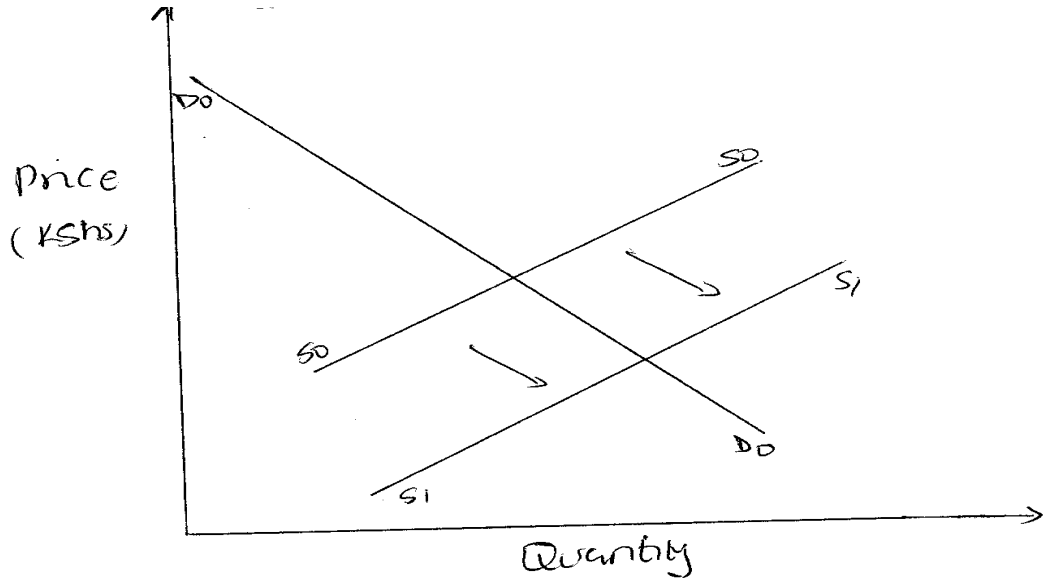
……

……

……

……

9. Below is a demand and supply curve.



Highlight the factors that may have led to the above behavior. **(4 mks)**

……

……

……

……

10. Outline <u>four</u> circumstances under which a cheque maybe be dishonoured. **(4 mks)**

……

……

……

……

……

……

11. Give the difference between: **(4 mks)**

(a) Double and co-insurance

……

……

……

……

(b) Premiums and surrender value

……

……

……

……

12. Highlight <u>four</u> advantages of indirect production **(4 mks)**

……

……

……

……

13. Highlight <u>four</u> methods through which the government get involved in business activities.

(4 mks)

……

……

……

……

14. Highlight <u>four</u> duties of commercial attaches in trade promotion. **(4 mks)**

……

……

……

……

15. Complete the table below**.** **(4 mks)**

FACTOR OF PRODUCTION	**REWARD**
Land	
Capital	
Labour	
Entrepreneurship	

16. Outline three leakages in a circular flow of income. **(3 mks)**

……

……

……

17. Outline four advantages of using celebrities in product promotion. **(4 mks)**

……

……

……

……

18. Distinguish between goods and services. **(4 mks)**

GOODS	SERVICES

19. Kenya is planning to extend her pipeline transport. State four advantages of pipeline transport to the country. **(4 mks)**

……

……

……

……

20. Outline four factors that determine the size of a firm. **(4 mks)**

……

……

……

……

21. Kiburu carried out the following transactions during the month of February 2015.

February 1: Started business by depositing sh 220,000 in business bank account

7: Bought goods on credit from Miyogo Sh 72,000

8: Paid rent by cheque Sh 20,000

16: Sold goods to Kamula on credit Sh 50,000.

Required: Post the above transaction in the relevant ledge accounts. **(8mks)**

22. Highlight four features of perfect competition market. **(4 mks)**

……

……

……

……

23. Mention whether the following transactions have an increase, decrease or no effect on the assts, capital and liabilities of a business. **(4 mks)**

	Transaction	Assets	Capital	Liabilities
(a)	Bought premises on credit			
(b)	Took stock of goods and donated to a local dispensary			
(c)	Withdrew money from bank for office use			
(d)	Sold furniture receiving cash			

24. State the following abbreviations in full **(4mks)**

(i)GDP…….

(ii)GNP…….

(iii)NDP……

(iv)NNP……

FORM 3 ENDTERM 2 EXAMS

SERIES 1

565/2

BUSINESS STUDIES

PAPER 2

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGN ……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

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

FOR EXAMINER'S USE ONLY

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

For Marking Schemes Contact 0746-222-000 / 0753-222-000

QUESTIONS

1. a) Discuss five factors that may influence entrepreneurial practice positively in the country. **(10mks)**

b) Explain five principals of insurance**.** **(10mks)**

2. a) Explain five benefits of matatu reforms in transport sector. **(10mks)**

b) Using a well labeled diagram, differentiate between shift in demand curve and movement along the demand curve. **(10mks)**

3. a) Muema is planning to construct a warehouse for renting. Explain five measures that he may take to ensure its smooth operation**.** **(10mks)**

b) Explain five methods used to distribute imported manufactured goods**.** **(10mks)**

4. a) Outline five measures that the Kenya government may take to reduce unemployment. **(10mks)**

b) Explain five measures that the government may take to increase supply of maize in the market. **(10mks)**

5. a) Describe any five types of business activities**.** **(10mks)**

b) Munguti, who runs a retail store, had the following assets and liabilitie as at 31st March 2016.

Premises		Sh. 100,000
Debtors		Sh. 4,000
Creditors		Sh. 16,000
Stock		Sh. 2,000
Cash at bank	Sh. 60,000	
Cash in hand	Sh. 20,000	
Loan from AFC	Sh. 50,000	

During the month of April 2015, the following transactions took place

2015

April 1st sold goods at cost Sh. 2000cash

April 2nd Paid creditors Sh. 8000 cash

April 10th received Sh. 2000 from his debtors in cash

April 15th Bought a motor van for Sh. 35,00 paying by cheque

April 25th purchased goods worth Sh. 15000 and paid by cheque

Required: Prepare a balance sheet as at 25th April 2015. **(10mks)**

6. a) Describe the following terms as used in accounting.

i) Assets **(2mks)**

ii) Credit transactions. **(2mks)**

iii) Networth of a Business. **(2mks)**

iv) Ledger. **(2mks)**

b) Muinamo started a business on 1st March 2012 with a capital of 240,000 consisting of Sh. 130,00 in bank, Sh. 50,000 in cash and furniture worth Sh. 60,00. Transactions for the first week were as follows;

2012: March 2nd purchased a typewriter by cheque Sh. 20,000

March 3rd bought delivery van for Sh. 450,000 from Mwangaza motors on Credit

March 4th Bought stock worth Sh. 15,000 for cash

March 5th Purchased goods worth Sh. 18,000 from Kinyua on credit

March 6th sold goods worth Sh. 30,000 on credit to Menge

March 7th paid 12,000 to Kinyua by Cheque

March 7th received Sh. 4,000 for rent by cheque

Required: Record the above information in the relevant ledger accounts and balance them off on 7th March 2012**. (10mks)**

THE END

FOR THE FOLLOWING;

- ✓ ONLINE TUITION
- ✓ REVISION NOTES
- ✓ SCHEMES OF WORK
- ✓ SETBOOKS VIDEOS
- ✓ TERMLY EXAMS
- ✓ QUICK REVISION KITS
- ✓ KCSE TOPICALS
- ✓ KCSE PREMOCKS
- ✓ TOP SCHOOLS PREMOCKS
- ✓ JOINT PREMOCKS
- ✓ KCSE MOCKS
- ✓ TOP SCHOOLS MOCKS
- ✓ JOINT MOCKS
- ✓ KCSE POSTMOCKS
- ✓ TOP SCHOOLS PREDICTIONS
- ✓ KCSE PREDICTIONS
- ✓ KCSE REVEALED SETS

CALL/TEXT/WHATSAPP

0746 222 000

0742 999 000

mwalimuconsultancy@gmail.com

This is a Copyright Property of Mwalimu Consultancy Ltd.

Powered By Mr Isaboke