FORM 3 ENDTERM 1 EXAMS

ALL SUBJECTS

Compilation of Standard set of End-Term 1 Questions for the Current Class.

Subjects Tested;

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

SERIES 1

For Marking Schemes

Mr Isaboke 0746 222 000 / 0742 999 000

MWALIMU CONSULTANCY

FORM 3 ENDTERM 1 EXAMS

SERIES 1

BIOLOGY

PAPER 1

TIME: 2 HOURS

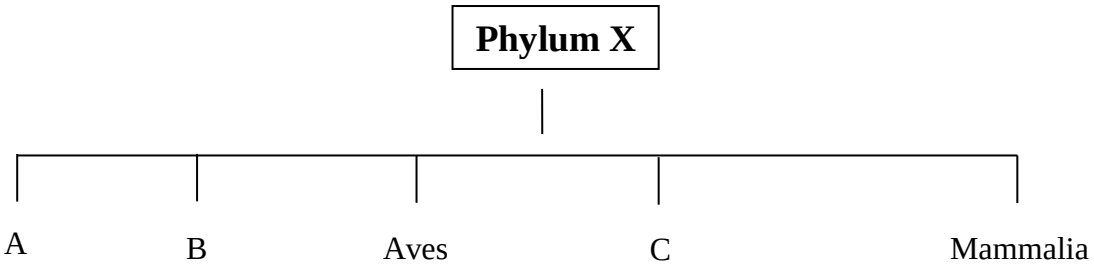
NAME……. ADM NO; ……..

CLASS…… DATE……..

INSTRUCTIONS TO CANDIDATES:

- *Answer **ALL** the questions*
- *Answers should be written in the spaces provided*

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



a) What is the phylum X? **.....(1mk)**

b) Name the classes A, B and C. **(3mks)**

A.....

B.....

C.....

c) State **two** distinguishing characteristics of mammalian class. **(2mks)**

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2. Name the field of science that specializes in the study of members that belong to the class insect.

.....(1mk)

3. What are the functions of bile salts during the process of digestion? **(2mks)**

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4. State the importance of each of the following to the life of organisms.

a) Respiration**..... (1mk)**

b) Excretion**..... (1mk)**

5. What are the differences between blood in the pulmonary artery and that in the pulmonary vein?

(2mks)

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6. Name **three** plant tissues that are involved in support. **(3mks)**

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7. State the causative agent and method of transmission of cholera. **(2mks)**

Causative agent**.....**

Mode of transmission **.....**

8. Name the products of light stage in photosynthesis. **(3mks)**

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9. What causes the following diseases?

a) Diabetes mellitus. **.....** **(1mk)**

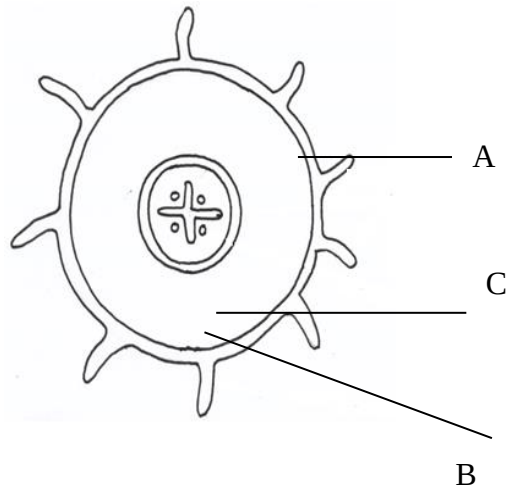
b) Diabetes insipidus**.....** **(1mk)**

10. Name **two** benefits that a parasite derives from the host. **(2mks)**

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11. The diagram below represents a cross section of a plant.



a) From which part of the plant was it obtained? **(1mk)**

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

A.....

B.....

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

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12. (a) What is the role of fungi in an ecosystem? **(1mk)**

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(b) State four characteristics of fungi. **(4mks)**

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13. State the function of the following parts of a light microscope. **(2mks)**

a) Objective lens**……**

b) Diaphragm**……**

14. State **four** ways of controlling *schistomiasis*. **(4mks)**

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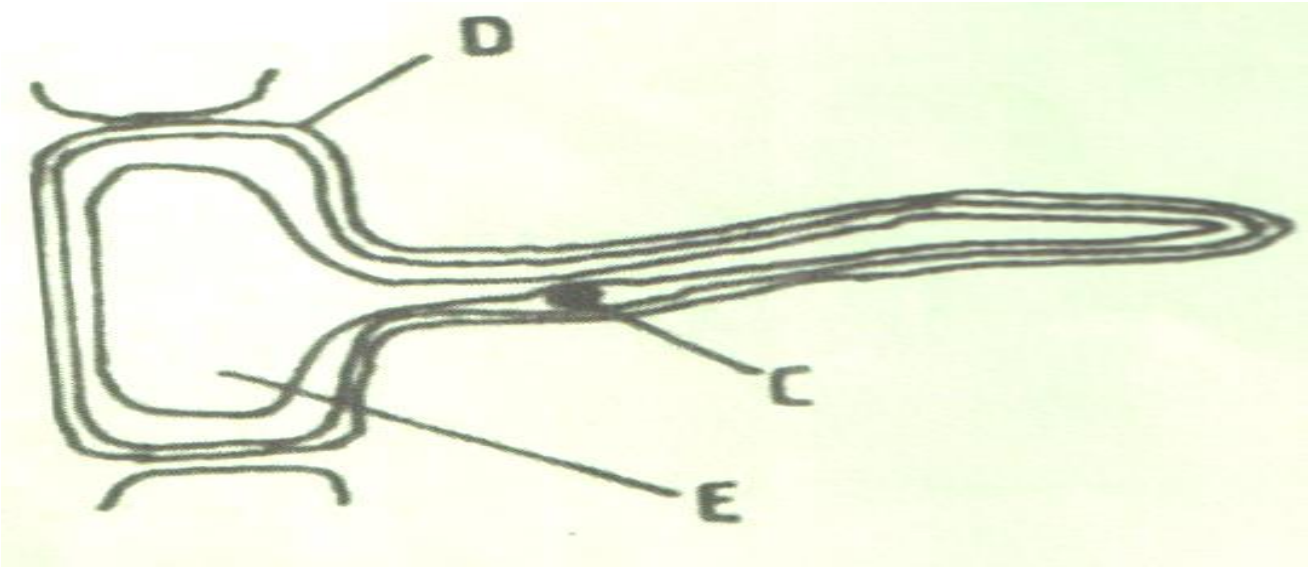
15. Distinguish between predation of and parasitism. **(4mks)**

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16. The diagram below shows a specified plant cell.



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

b) Name the parts labeled A, B, D and E. **(4mks)**

A.....

B.....

C.....

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

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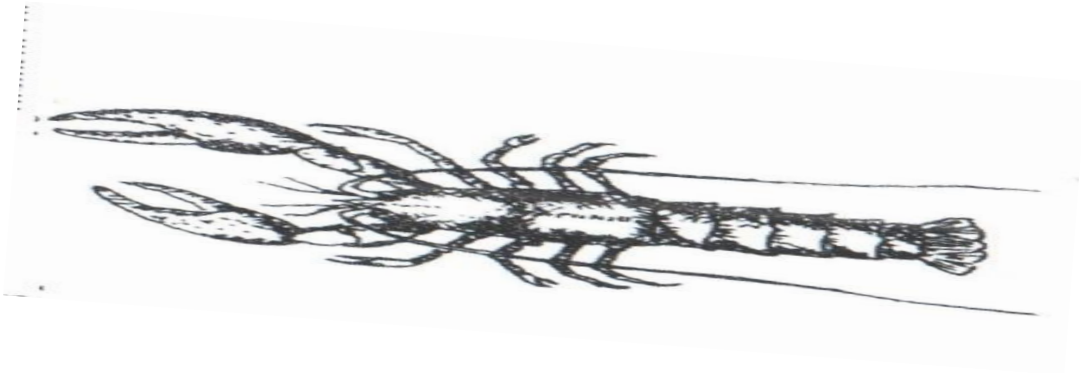
17. State **three** factors that affect the rate of diffusion. **(3mks)**

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18. The diagram below represents a certain organism collected by a student at the sea shore.



a) Name the class to which the organism belongs. **(1mk)**

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b) Give **three** reasons for your answer in (a) above. **(3mks)**

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19. (a) Name the causative agents of the following diseases in humans. **(2mks)**

i) Typhoid**.....**

ii) Amoebic dysentery**.....**

(b) Name the disease in human caused by *Plasmodium falciparum.* **(1mk)**

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20. The diagram below represents a certain plant.



a) What is the likely habitat for the plant? (1mk)

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

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21. Describe the **three** characteristics of a population. **(3mks)**

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22. Other than using the quadrant, give two methods of estimating population of grass. **(2mks)**

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23. Name **three** processes that are responsible for loss of energy from one trophic level to the next. **(3mks)**

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24. State **two** ways in which aerenchyma tissues in aquatic plants are adapted to their function **(2mks)**

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25. What is meant by the following terms?

a) Habitat: **(1mk)**

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b) Ecosystem. **(1mk)**

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c) Ecology. **(1mk)**

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26. *Ascaris lumbricoides* is an example of an endo-parasite.

a) The name Ascaris refers to: -……..……. **(1mk)**

b) State the habitat of the organism..... **(1mk)**

c) State **three** ways in which the organism is adapted to living in its habitat. **(3mks)**

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

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

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FORM 3 ENDTERM 1 EXAMS

SERIES 1

BIOLOGY

PAPER 2

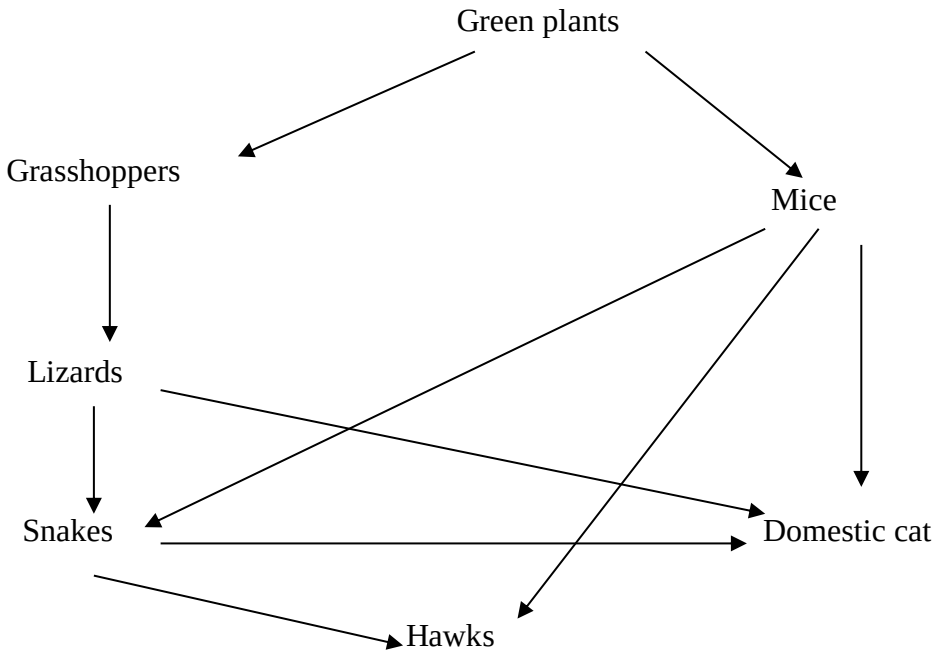
TIME: 2 HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

SECTION A: (40 MARKS)

1. The chart below represents a food web. Use it to answer the questions that follow.



a) Construct two food chains ending with tertiary consumer in each case. **(2mks)**

i.……

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ii……

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b) Which organism has the largest variety of predators in the food web? **(1mk)**

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c) Name secondary consumers in the food web. **(1mk)**

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d) Suggest three ways in which the ecosystem would be affected if there was a prolonged drought. **(3mks)**

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2. To estimate the population size of crabs in a certain lagoon, traps were laid at random 400 crabs were caught, marked and released back into the lagoon. Four days later traps were laid again and 374 crabs were caught. Out of the 374 crabs, 80 were found to have been marked.

a) Calculate the population size of crabs in the lagoon. **(2mks)**

b) State three assumptions that were made during the investigation. **(3mks)**

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c) What is the name given to this method of estimating the population size? **(1mk)**

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d) Other than the method named above, state any other two methods that are used to estimate population size. **(2mks)**

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3. (a) Classify the bean plant in to each of the following taxa. **(3mks)**

Kingdom .....

Division.....

Class .....

(b) Name the microscopic living threads that make up the body of a fungus. **(1mk)**

.....

c) State the structural differences between Gymnospermatophyta and Angiospermatophyta.**(4mks)**

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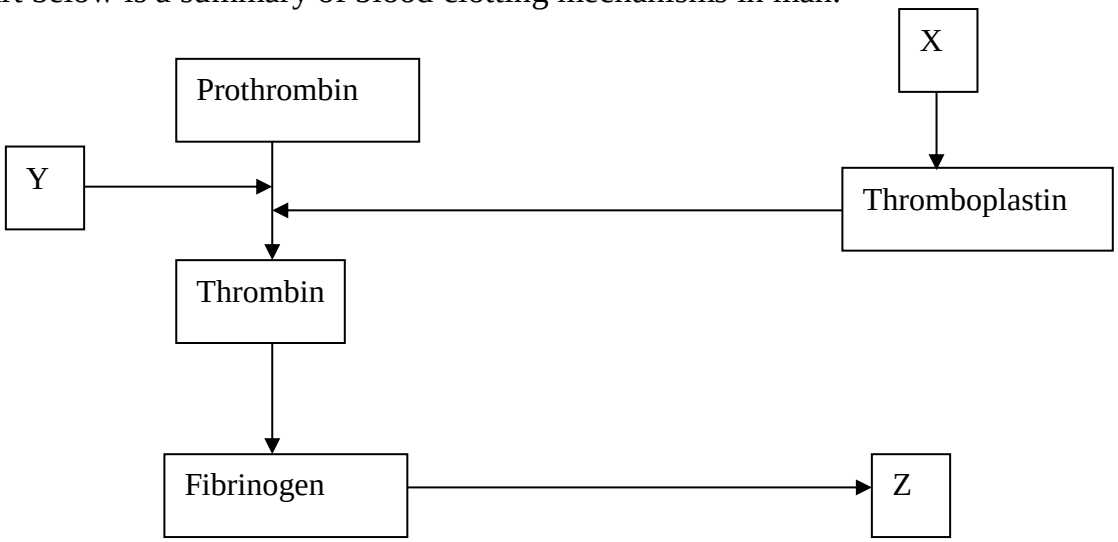
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4. The chart below is a summary of blood clotting mechanisms in man.



a) Name

i) The blood cells represented by X. ..... **(1mk)**

ii) Metal ion represented by Y. ..... **(1mk)**

b) Identify product Z and state its significance. ..... **(2mks)**

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c) Name the process by which the human body naturally stops bleeding. **(1mk)**

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d) How can low blood volume be brought back to normal? **(2mks)**

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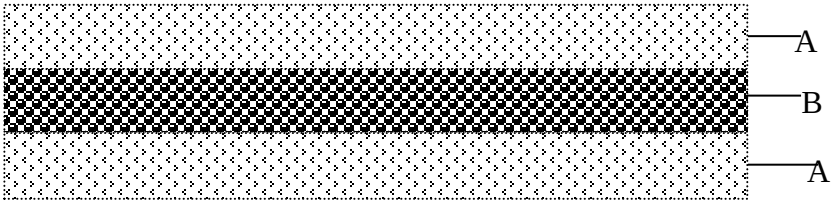
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e) Give a reason why blood doesn't clot in unwounded blood vessels. **(1mk)**

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5. The diagram below represents the general appearance of a section of the cell membrane under an electron microscope.



a) State the possible composition of layers A and B. **(2mks)**

A……

B……

b) What is the significance the structure A in the membrane? **(2mks)**

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c) State **two** properties of the cell membrane that make it efficient in its functions. **(2mks)**

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d) Give **two** reasons why an electron microscope is useful in the study of the cell structure. **(2mks)**

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Answer Question 6 (COMPULSORY) and either Question 7 or 8 in the spaces provided.

6. The data provided represents populations of a predator and its prey over a fifty years periods.

Time in years	Population in relative population of P (in thousands)	Numbers population of Q (in thousands)
5	24.5	17
10	30	20.5
15	33.5	26
20	33.5	30
25	31	33
30	27	32
35	25	30
40	29	27.5
45	32.5	28.0
50	34	28.5

a) (i) Using the same axes, draw graphs of the relative populations of P and Q against time. **(7mks)**

(GRAPH PROVIDED AT THE END)

(ii) With a reason identify the curve that represents the prey. **(2mks)**

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(iii) Accounts for the two populations between 25 and 32 years. **(2mks)**

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(iv) Which years were the two populations equal. **(2mks)**

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(v) Apart from predation, state three biotic factors that may have led to the decline of the prey population. **(2mks)**

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b) Describe the hazards of air population by sulphur (IV) oxide. **(4mks)**

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7. Explain how the mammalian heart is structurally adapted to its functions. **(20mks)**

8. (a) Give any two functions of leaves in plants. **(2mks)**

(b) Explain how leaves of mesophytes are suited to their functions. **(18mks)**

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FORM 3 ENDTERM 1 EXAMS

SERIES 1

BIOLOGY

PAPER 3

PAPER 3 (231/3)

(CONFIDENTIAL)

Provide the following;

In addition to the usual apparatus,

- ***a)*** *Irish Potato (A Piece Per Student)*
- ***b)*** *Ruler*
- ***c)*** *Scalpel*
- ***d)*** *Labels (A And B)*
- ***e)*** *Iodine Solution*
- ***f)*** *Benedicts Solution*
- ***g)*** *Sodium Hydroxide Solution*
- ***h)*** *Copper Ii Sulphate Solution*
- ***i)*** *Test Tubes (5 Per Students)*
- ***j)*** *Means Of Heating*
- ***k)*** *Hydrogen Peroxide 20ml Per Student*
- ***l)*** *Mortar And Pestle*

FORM 3 ENDTERM 1 EXAMS

SERIES 1

BIOLOGY

PAPER 3

TIME: 2 HOURS

NAME……. ADM NO; ……..

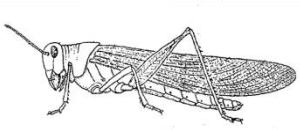
CLASS…… DATE……..

INSTRUCTIONS TO CANDIDATES:

- *Answer **ALL** the questions*
- *Answers should be written in the spaces provided*

1. Below are diagrams P, Q, R and S. Examine them.

P



Q



R



S



a. Using observable features in the photographs, complete the dichotomous key given below.

(2mks)

1. a) Animals with legs…….....…….go to 2

b) Animals without legs…….....snake

2. a) Animals with two body parts …….....……..spider

b) …….....……..go to 3

3. a) ……...…….....…….. locust

b) Animals without wings…….....……Ant

b. In each case show steps followed to arrived at the identity. **(4mks)**

Organism	Steps followed	Identity
P		Locust
Q		Ant
R		Snake
S		Spider

c. Name the main characteristics used to classify members of the phylum Arthropoda. **(3mks)**

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d. State **five** economic importance of insect. **(5mks)**

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e. Using observable features only show how specimen P adapted for locomotion. **(2mks)**

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2. You are provided with a specimen Q.

Obtain two equal cubes about 1cm in length from specimen Q. Crush one of the cubes and place it in test tube labeled B. Place the other cube as a whole in test tube labeled A. In to each of the test tubes add $10cm^3$ of hydrogen peroxide.

a) State the observations made in test tube B. **(1mk)**

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b) Explain the results in a (i) above. **(1mk)**

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c) Write an equation for the breakdown of hydrogen peroxide. **(1mk)**

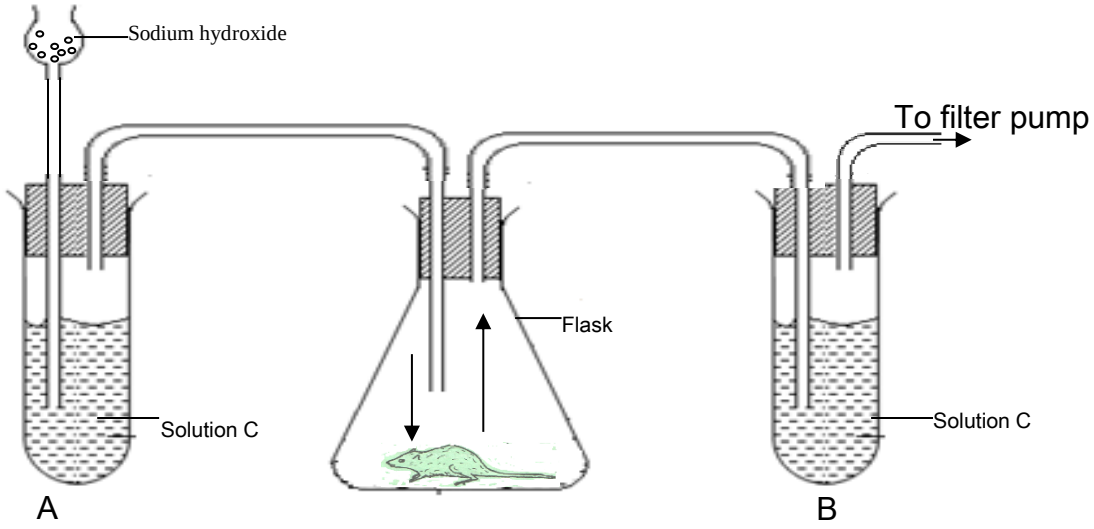
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d) Peel the remaining half of specimen Q and crush it in a motar. Using the reagents provided test for the various food substances in the extract obtained from crushed material. Record the procedures, observations and conclusions in the table below.

Food substance	Procedure	Observations	Conclusions

3. The following set-up was used by students to demonstrate a certain process.



a. Identify the process being investigated. **(1mk)**

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b. Name solution C **(1mk)**

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c. State the observations expected at the end of the experiment in:-

Tube A..... **(1mk)**

Tube B..... **(1mk)**

d. Account for the observations made in:- **(2mks)**

Tube A

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……

Tube B. **(2mks)**

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e. If the animal was replaced by a potted plant.

i. What modification would you make in the set-up above? **(2mks)**

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

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FORM 3 ENDTERM 1 EXAMS

SERIES 1

BUSINESS STUDIES

PAPER 1

TIME: 2 HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

QUESTIONS

1.State four factors that determine the period which documents should be stored **(4mks)**

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2.In the table below identify the type of utility for each circumstance **(4mks)**

Processing and packing of sugarcane in a sugarcane in a sugarcane factory	
Selling shoes in a market	
Transporting milk from Kiambu to Thika	
Storing goods in a warehouse	

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

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4.Highlight five ways in which consumer benefits from warehousing **(5 mks)**

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5.Identify four situations when differed payments would be used **(4mks)**

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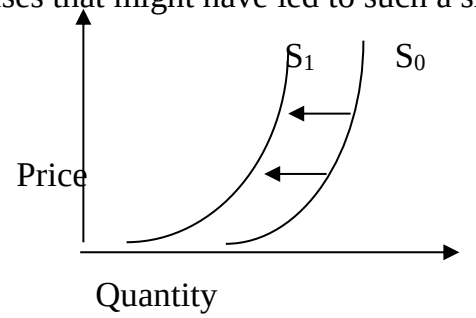
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6.The figure below shows a shift in supply.

State four possible causes that might have led to such a situation **(4mks)**



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7.Identify four factors that affect the circular flow of income **(4mks)**

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8.A resource is something used by the business to achieve an objective. Identify four resources found in a business **(4mks)**

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9.Outline four features of monopoly structure of market **(4mks)**

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10.Outline four features of an insurable risk **(4mks)**

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11. Outline four measures that an employer can take to improve his/ her human resource **(4mks)**

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12. Highlight four benefits experienced by a holder of a credit card **(4mks)**

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13. Identify four reasons why one would prefer to use air transport to transport goods from one place to another **(4mks)**

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14. Outline four features that constitutes a market **(4mks)**

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15.Give four reasons why one would prefer to buy food first before buying a television **(4mks)**

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16. State four contents of a cover note **(4mks)**

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17. Identify the type of advertisement described below **(4mks)**

Any mention of a person/ firm or media	
Any paid form of impersonal presentation of a product made through mass communication media.	
Presentation of a commodity to prospective buyers, face to face by a sales person with an aim of making sales	
Process of information with a view of creating, promoting or maintaining good and favorable image of a firm	

18.Identify four gaps in a market that may bring a business opportunity in a market **(4mks)**

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19.Identify four factors that may determine location of an office **(4mks)**

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20.State five reasons why a firm may decide to remain small in an economy dominated by large firms **(4mks)**

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21.Outline four measures an office may take to safeguard the organizations property **(4mks)**

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22.Ouline four circumstances under which per capital income statistics would be a good indicator of the welfare of the citizen of a country **(4mks)**

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23Ouline four factors that may constitute an efficient transport system **(4mks)**

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24.Outline four factors that may account for predominant direct production in a country **(4mks)**

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25. In the space provided, indicate with a tick whether the information relates to preference shares or ordinary shares **(3mks)**

Statement	**Preference**	**Ordinary**
Represent real owners of company		
Rate of dividend is fixed		
Has voting right		
Redeemable		
May be cumulative		
Considered last in liquidation		

Have A Nice Holiday

Stay Safe

FORM 3 ENDTERM 1 EXAMS

SERIES 1

BUSINESS STUDIES

PAPER 2

TIME: 2 HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

Answer any FIVE Questions

1a)Explain five features that differentiate a public corporation from a private limited company form of a business unit **(10mks)**

b)Explain five reasons why citizens may experience low standards of living despite improvement in the per capita income **(10mks)**

2a)Discuss five reasons why a manufacturer may decide to sell directly to **consumers** **(10mks)**

b)Explain five benefits that would accrue to a country as a result of **delocalization** **(10mks)**

3a) Explain five circumstances under which the nature of goods would influence the choice of the means of **transport** **(10mks)**

b)Using a well labeled diagram, explain the flow of income in a two sector **economy** **(10mks)**

4a) Discuss five methods that can be used by the government to solve unemployment in the country **today** **(10mks)**

b)Explain five roles of insurance in the development of the **economy** **(10mks)**

5a) Explain five measures put in place by the government to bring order in road transport sector in Kenya **today** **(10mks)**

b)Discuss five ways in which communication enhances trading **activities** **(10mks)**

6a) Explain five factors that influence choice of distribution **channel** **(10mks)**

b)Explain five factors that constitute a healthy external environment for **business** **(10mks)**

FORM 3 ENDTERM 1 EXAMS

SERIES 1

AGRICULTURE

PAPER 1

TIME: 2 HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

SECTION A (30 marks)

1. Mention **four** factors that determine the depth of planting in crop production. **(2mks)**

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2. State **four** benefits of a good soil structure. **(2mks)**

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3. State **four** factors to be considered in sitting nursery bed. **(2mks)**

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4. Give **four** advantages of shifting cultivation. **(2mks)**

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5. Name **four** factors influencing soil formation. **(2mks)**

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6. Define the term **drainage**. **(1mk)**

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7. Give any **three** tertiary operations carried out during land preparation. **(1 ½mks)**

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8. State **three** forms in which soil water exists. **(1 ½ mks)**

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9. In farming under what conditions is opportunity cost zero. **(1mk)**

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10. What are the deficiency symptoms of sulphur? **(1½ mks)**

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11. Name the vegetative materials used in the establishment of the following crops.

Bananas ……..……...(½ mk)

Pineapples…….....……(½ mk)

Sisal ……..…… (½ mk)

12. State **four** advantages for planting potatoes in a ridged seedbed. **(2mks)**

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13. State **four** reasons for pruning. **(2mks)**

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14. What is organic farming? **(1mk)**

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15. Give reasons for carrying each of the following practices in tomatoes nursery. **(2mks)**

i) Pricking out

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ii) Hardening off

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iii) State **two** problems that may be brought by a hard pan. **(1mk)**

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15. Give **four** advantages of tissue culture. **(2 marks)**

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16. State **four** properties of soil influenced by its texture. **(2 marks)**

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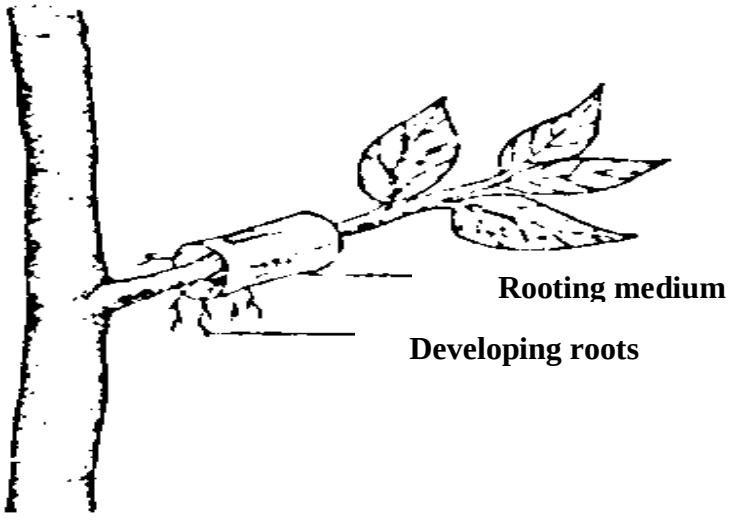
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SECTION B (20 MARKS)

Answer ALL questions from this section in the spaces provided.

17. The diagram below shows a method of layering. Study it and answer the questions that follow.



a) Identify the method of layering illustrated above. **(1mk)**

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b) State **one** circumstance in which the method of layering indicated above is recommended.**(1 mk)**

c) Maize requires 120kg/ha of phosphorus pentoxide (P_2O_5). How much of the compound fertilizer20:20:10 would be applied to 0.4 hectare of land to achieve this rate.
(show your working). **(2 marks)**

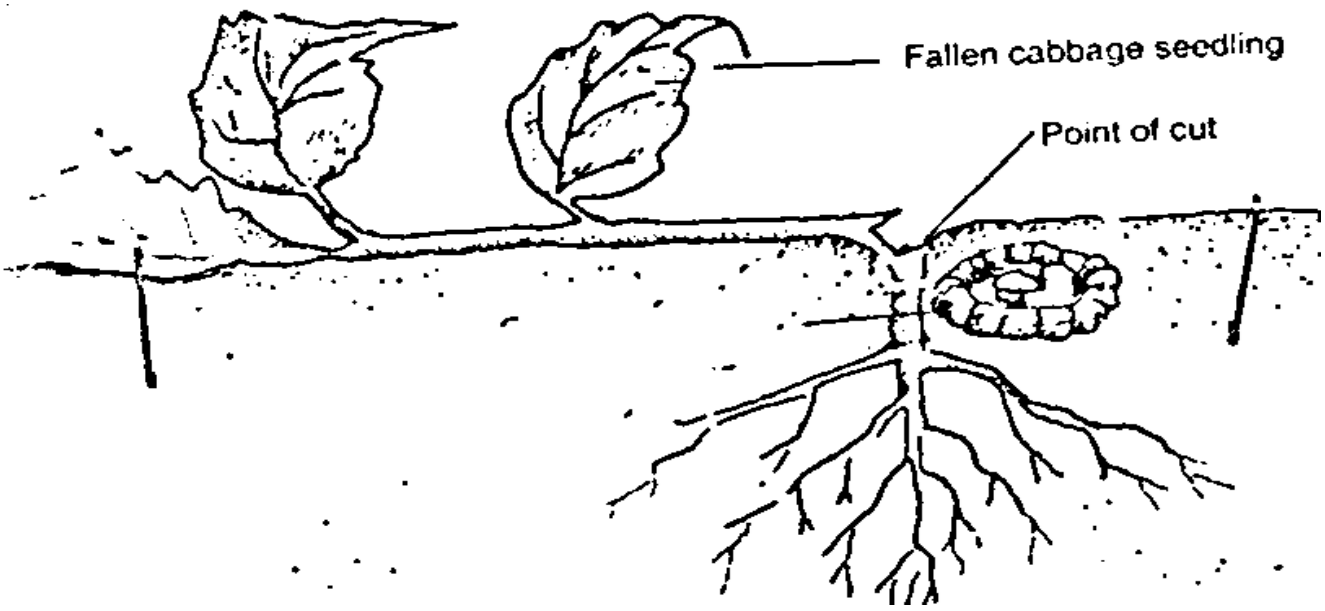
d) Distinguish between straight fertilizers and compound fertilizers. **(2 marks)**

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18. The diagram below shows a cabbage seedling which has been attacked by a certain pest.



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

b) State **three** methods of controlling the above pest **(3 mrks)**

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State **four** methods of harvesting water on the farm. **(4mrks)**

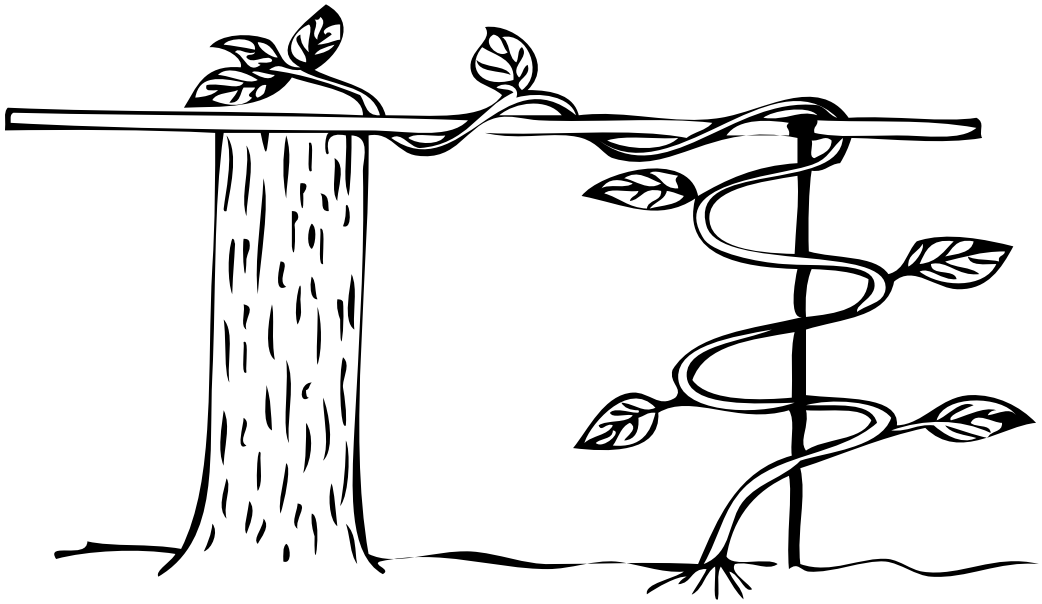
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19. The diagram below illustrates a field management practice carried out to a fruit crop



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

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ii) Give **three** reasons for carrying out the practice illustrated in the above diagram. **(3marks)**

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(b) Give a reason why it is not advisable to use manure in carrot production. **(1mark)**

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SECTION C (40 MARKS)

*Answer **only two** questions in this section in the spaces provided.*

20. a) Describe the methods used in preparing materials in readiness for planting. **(8 marks)**

b) Explain the factors that may determine spacing of crop in the farm **(8 marks)**

c) Explain briefly the factors that influence timely planting**.** **(4marks)**

21 a) State and explain the uses of farm records to a farmer **(10mks)**

b) Explain how the following land reforms are carried out

i) Land consolidation **(5mks)**

ii) Land adjudication and registration **(5mks)**

22. a) Describe the environmental conditions that may lead to low crop yield **(5mks)**

b) Explain the factors of cultural methods of soil and water conservation **(10mks)**

c) Give FIVE advantages of overhead irrigation **(5mks)**

23. a) Explain the factors of cultural methods of soil and water conservation **(15mks)**

b) Give FIVE advantages of overhead irrigation **(5mks)**

FORM 3 ENDTERM 1 EXAMS

SERIES 1

AGRICULTURE

PAPER 2

TIME: 2 HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

INSTRUCTIONS TO CANDIDATES:

- *Answer **ALL** the questions*
- *Answers should be written in the spaces provided*

SECTION A (30MARKS)

1. Name **three** types of dairy goats reared in Kenya **(1 ½ marks)**

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……

2. a). What is raddling in sheep management **(1mk)**

……

……

b. Give **two** reasons for raddling in sheep management **(1mk)**

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3. Give **three** advantages of contemporary comparison method in selection of livestock **($1^1/_2$)**

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4. Give **two** reasons for spreading a polythene paper (pvc) on the slab of a permanent farm building **(2mks)**

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5. Name three types of Fresh warm water fish reared in Kenya **(1 ½ mks)**

……

……

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6. a) Give **three** disadvantages of inbreeding in cattle production **($1^1/_2$mks)**

……

……

……

b). Give **three** advantages of embryo transplant in cattle **(1^1/2mks)**

……

……

……

7. Name the farm tools used for each of the following operations listed below.

a) Tightening barbed wire during fencing**.....(½ mark)**

b) Smoothening of concrete floors**.....(½ mark)**

c) Giving liquid drugs to livestock through the mouth**.....(½ mark)**

d) Sharpening the teeth of across-cut saw**.....(½ mark)**

8. List **four** factors considered when making a choice of building materials. **(2 marks)**

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……

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……

9. State **two** reasons why calves should be housed singly . **(1 mark)**

……

……

10. What is cropping in fish farming? **(½ mark)**

……

……

11. State **three** methods of disbudding young calves. **(1½marks)**

……

……

……

12. State **two** reasons why calves should be housed singly . **(1 mark)**

……

……

13. Name **one** intermediate hosts for each of the following.

a) Tapeworm*(Taenia spp)***.....(½ mark)**

b) Liver fluke*(Fasciola spp)***.....(½ mark)**

14. Name **four** disease predisposing factors outside an animal's body. **(2 marks)**

……

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15. State **four** factors that determine the amount of water a beef animal can take .**(2 marks)**

……

……

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……

16. State **four** structural requirements of a zero grazing unit. **(2 marks)**

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17.a) Name the tool used for shearing wool sheep.**.....(½ marks)**

b) State **three** practices carried out during tupping season in sheep management. **(1½ marks)**

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18. State **three** functions of carbohydrates in livestock nutrition. **(1½ marks)**

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SECTION B 20 MARKS

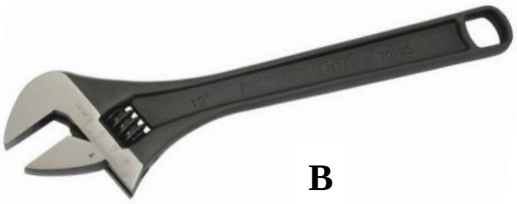
19. Below are illustrations of farm tools and equipment.

A





C



B

a) Identify the tool labelled A and C

A **(1 mark)**

……

B **(1 mark)**

……

b) State the advantage of tool B over tool C **(1 mark)**

……

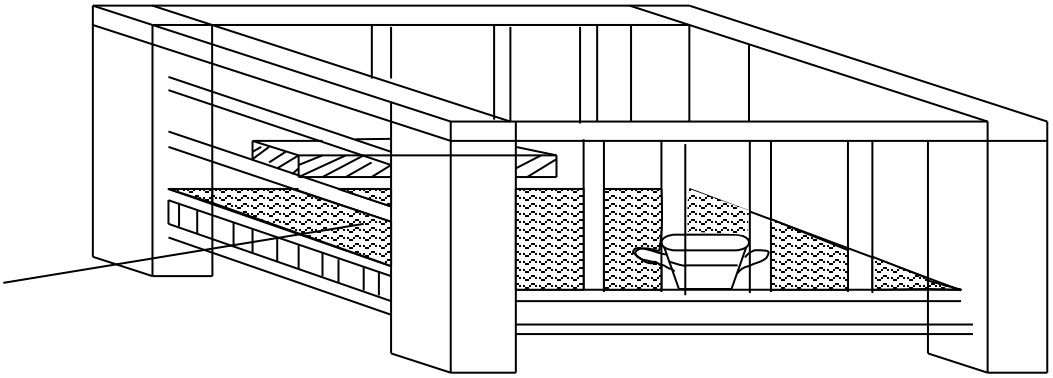
……

c) State two maintenance practices carried out on tool labelled B. **(2 marks)**

……

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20. Below is a farm structure. Study it carefully and answer the questions that follow.



X

a) Identify the farm structure above

…… **(1 mark)**

b) State the requirement of the part labelled X **(1 mark)**

……

c) State **three** maintenance practices that should be carried on the structure. **(3 marks)**

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21. A dairy farmer prepared 1000kg of feed (20%DCP) from the following feedstuffs:

Oats – 10% DCP , Simsim seedcake 60% DCP

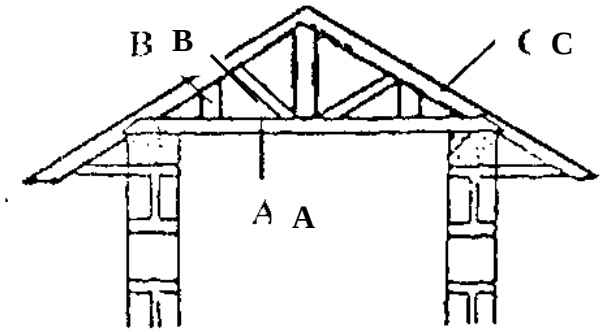
Calculate the amount of each feedstuff used using Pearson's square method. **(3marks)**

b) Classify the following feedstuffs as either roughage or concentrate. **(2marks)**

i) Bone meal _____

ii) Silage _____

22. Study the diagram below of a farm structure and answer the questions that follow.



a) Identify the parts labelled A, B, and C. **(3 marks)**

A _____

B _____

C _____

b) Name **two** chemical preservatives that can be used to treat the wooden part of the above structure against fungi and insect attack. **(2marks)**

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SECTION C 40 MARKS

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

23. [a] Describe six signs of farrowing in a sow . **[6mks.]**

[b]Explain six benefits of the Kenya top bar hive . **[6mks.]**

[c]Explain eight factors considered when siting farm structures . **[8mks.]**

24. a) State and explain 5 reasons for keeping livestock. **(10 marks)**

b)Describe factors considered when selecting a gilt for breeding. **(6 marks)**

c) Name four systems of breeding used to improve livestock. **(4 marks)**

25. a) Describe ten general methods of disease control in livestock. **(10marks)**

b)Describe the advantages of fences. **(10 marks)**

FORM 3 ENDTERM 1 EXAMS

SERIES 1

CHEMISTRY

PAPER 1

TIME: 2 HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

QUESTIONS

1) (a) State and explain simple method you can use to separate a mixture of sulphur powder and iron fillings **(2mark**

……

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(b) A mixture of iron and sulphur was heated strongly until it glowed red throughout and then left to cool. Explain why you cannot obtain sulphur and iron from the product using the method you stated in (a) **above** **(2marks)**

……

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2) Explain why the following substances are good conductors of electricity:

(a) Molten lead II **bromide** **(1mark)**

……

……

(b) Aluminium **(1mark)**

……

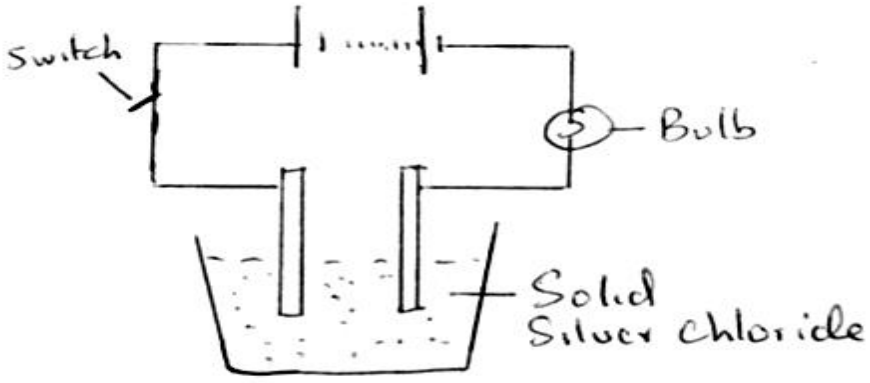
……

3) Define the term **electrolyte** **(1mark)**

……

……

4) The following set up was used to investigate the effect of an electric current on silver chloride



5

(a) Label the cathode and anode on the diagram **(1mk)**

(b) When the switch was closed the bulb did not light. Explain. **(1mk)**

(c) If the bulb lights, write the equation of the reaction occurring at the cathode. **(1mk)**

(d) State and explain the observation made at the anode. **(2mks)**

5) State three application of electrolysis. **(3mks)**

……

……

……

6) Calculate the pressure required to compress 4.24 dm^3 of a gas at 5.4299 X 10^4 Pascal's to 1.56 dm^3 at constant temperature. **(2marks)**

7) Draw the structure of;

i) Hydroxonium ion H_3O^+ **(2mk)**

ii) Ammonium ion (Al = 13, 0 = 8) **(2mk)**

8) The table below shows some properties of substances A-E. Study it and answer the questions that follow.

substance	Solubility in water	Solubility in chloroform	m.p.(°C)	b.p .(°C)
A	soluble	soluble	-22	141
B	insoluble	soluble	115	444
C	soluble	insoluble	801	1465
D	insoluble	soluble	-188	-42
E	insoluble	insoluble	1083	2600

(a) Which of the substances is a gas at room temperature of 25 °C? . **(1mark)**

……

……

(b) What is the physical state of substance A at room temperature of 25 ° C? **.** **(1mark)**

……

……

(c) How can you separate the mixture of substances B , C and E **?** **(3mrks)**

……

……

……

……

9) What volume of acidified potassium manganate VII of concentration 0.02 moles per dm^3 is decolorized by 200 dm^3 of hydrogen peroxide of concentration 0.02 moles per dm^3 ? (3marks)

Use the following ionic equation

$$2MnO^{4-}_{(aq)} + 6H^{+}_{(aq)} + 5H_2O_{2(aq)} \longrightarrow 2Mn^{2+}_{(aq)} + 8H_2O_{(l)} + 5O_{2(g)}$$

10) A mass of 3.6 g magnesium reacts in excess chlorine to form a chloride. If the mass of the chloride formed is 14.25 g, find the formula of the chloride formed. (Mg = 24, Cl =35.5). . **(2marks)**

11) Starting with copper metal describe how a dry sample of copper II carbonate can be prepared in the laboratory**.** **(3 marks).**

12) The table below shows the first ionization energies of metals A to D (not their actual chemical symbols) in the same group of the periodic table.

Metal	**A**	**B**	**C**	**D**
First ionization energy ($kJmol^{-1}$)	**402**	**496**	**520**	**419**

(a) Arrange the metals in order of that they occur in the periodic table starting from the topmost to the lowest. Give a reason to support your answer**.** **(3marks)**

(b) Which of the metals has the largest atomic radius? **(1mark)**

13) When a piece of calcium is dropped into a beaker of water, it sinks to the bottom and bubbles of a gas are observed on the surface of the metal.

(a) Why does calcium sink to bottom of the beaker? **(1mark)**

(b) Name the gas that is formed in the reaction. **(1mark)**

(c) Besides effervescence, what else is observed in the beaker as the reaction progresses? Explain this observation. **(2marks)**

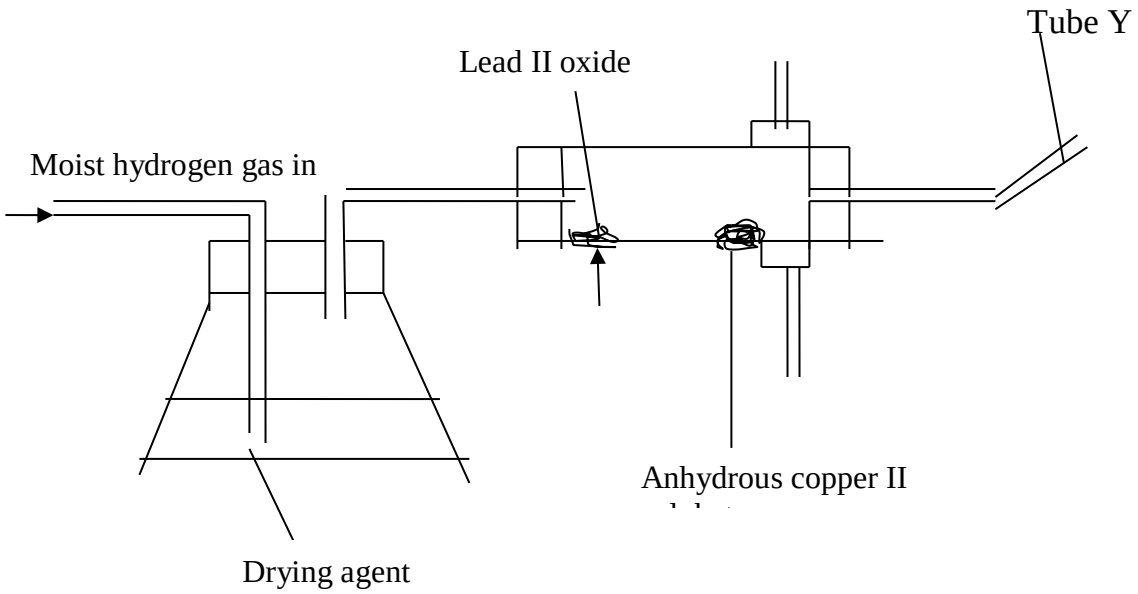
(b) Write an equation for the reaction between calcium and water. **1mk**

14) Explain the following statements:

(a) Following a bee's sting, application of sodium hydrogen carbonates to the affected area of the skin reliefs the irritation. **(2marks)**

(b) It is not advisable to clean aluminium utensils using wood ash . **(2marks)**

15) The set-up below was used to investigate some properties of hydrogen gas. Study it and answer the questions that follow:



(a) Name a suitable liquid that can serve as a drying agent**.** **(1mark)**

(b) State the observations you would expect in the combustion tube as the experiment progresses. **(2mks)**

16) Explain the following terms:

a) Water of **crystallization** **(1mark)**

b) Hygroscopy **(1mark)**

c) Acidic salts **(1mark)**

d) Normal salts **(1mark)**

17) Explain the role of helium in the welding of metals. **(2marks)**

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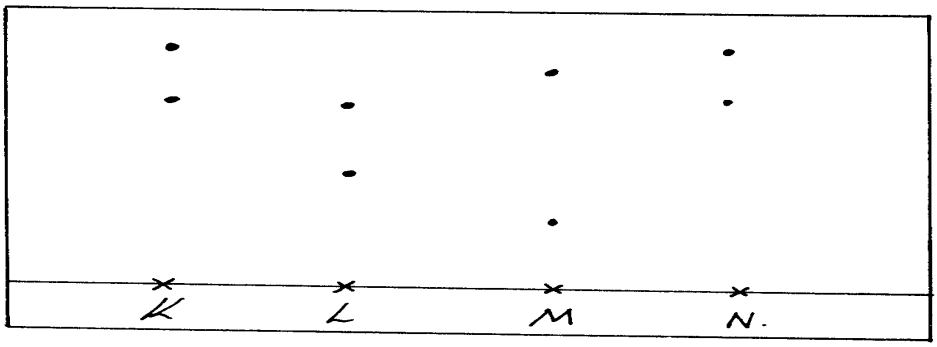
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18) Whereas hydrogen was commonly used in airships and weather balloons earlier on it is no longer used nowadays. Give a reason for this. **(1mark)**

……

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19) Chebet, Mutua and Waweru are international athletes. Paper chromatography was used to test for the presence of illegal drugs in their blood which enhance the performance. The diagram below shows the chromatogram with the illegal drug labeled N.



a) Who among them tested positive for the illegal drug? Explain. **(2marks)**

……

……

(b) Explain what is meant by 'solvent front'. **(1mark)**

……

……

20) An aqueous solution of ammonia was added drop wise to a solution of copper (II) Sulphate until in excess .State the observation made when

i) A few drops of aqueous ammonia were added. **(1 mark)**

……

ii) Excess aqueous ammonia was added. **(1 mark)**

……

21) The table below gives information about the ions W^+ and y2-

Ion	W+	Y2-
Electrons arrangements	2.8	2.8.8
Number of neutrons	12	16

a) How many protons are there in the nucleus of

i) Elements W? **(1 mark)**

ii) Elements Y? **(1 mark)**

b) Write the formula of the compound formed when W and Y reacts. **(1 mark)**

c) State two conditions under which the compound would conduct electricity. **(2marks)**

……

……

22) The following data gives the PH vales of some solution A, B and C..

Solution	PH
A	13.0
B	6.9
C	2.0

a) Which solution would produce carbon (IV) oxide gas when reacted with copper (II) carbonate? Explain. **(2 mark)**

b) What colour change would occur in solution A on addition of three drops of phenolphthalein indicator. **(1 mark)**

c) What volume of 0.2 M hydrochloric acid would react completely with 0.005 moles of pure calcium carbonate? **(3 marks)**

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23) What is an allotrope? **(1mark)**

……

……

(a) Give two allotropes of sulphur. **(2marks)**

……

……

(b) State three uses of sulphur. **(3marks)**

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……

FORM 3 ENDTERM 1 EXAMS

SERIES 1

CHEMISTRY

PAPER 2

TIME: 2 HOURS

NAME……. ADM NO; ……..

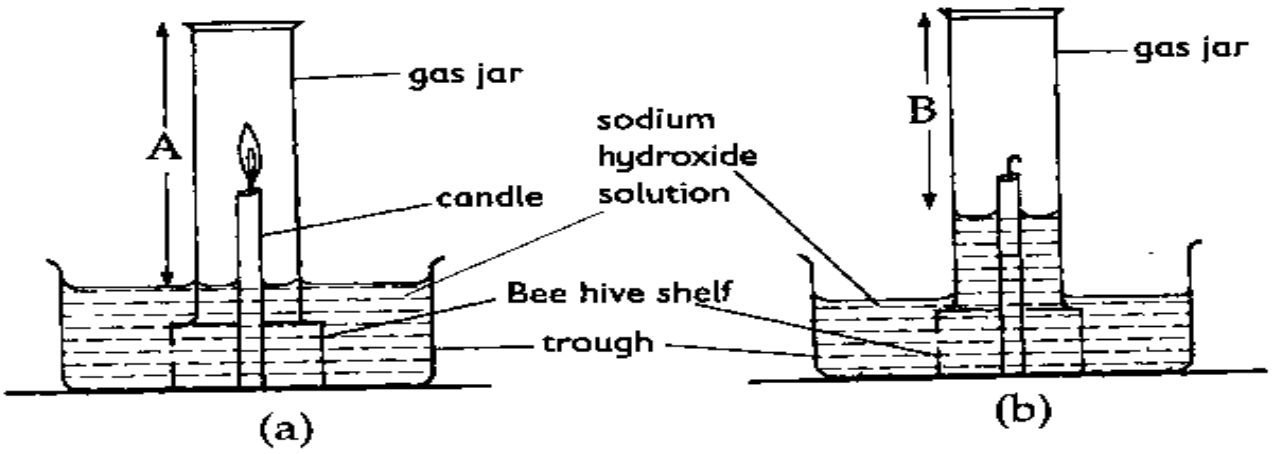
CLASS…… DATE……..

INSTRUCTIONS TO STUDENTS

1. ***Answer all questions in this question paper.***
2. ***All your answers must be written in the spaces provided in this question paper.***

Question	Maximum score	Candidates score
1 - 7	80	

1. The set up below was used to determine the percentage of oxygen in air. Use it to answer the questions that follow.



a) i) State the observations made after the experiment. **(1 mk)**

……

……

ii) What was the length of the air column in the gas jar before and after burning? **(1 mk)**

……

……

iii) Determine the percentage of air used up by the burning candle. (A=10cm, B=79cm) **(2 mks)**

……

……

……

b) State two sources of errors in the experiment. **(2 mks)**

……

……

c) Why is it necessary to leave the apparatus to cool before taking the final reading? **(1 mk)**

d) i) Write a balanced chemical equation for the reaction sodium peroxide and water. **(1 mk)**

ii) If 39g of sodium peroxide was used, calculate the volume of oxygen gas prepared at **r.t.p. (3 mks)**

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iii) Using dot and cross diagrams, draw the structure of ozone (O_3). The atomic number of oxygen is 8. (2mks)

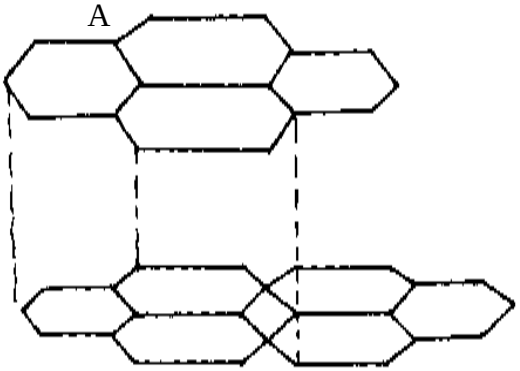
iv) State two properties of oxygen gas that makes it suitable to collected by over water method. **(2mks)**

……

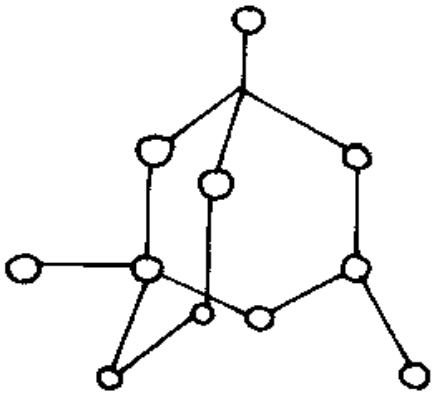
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2. a) The diagram below shows two allotropes of carbon

A



B



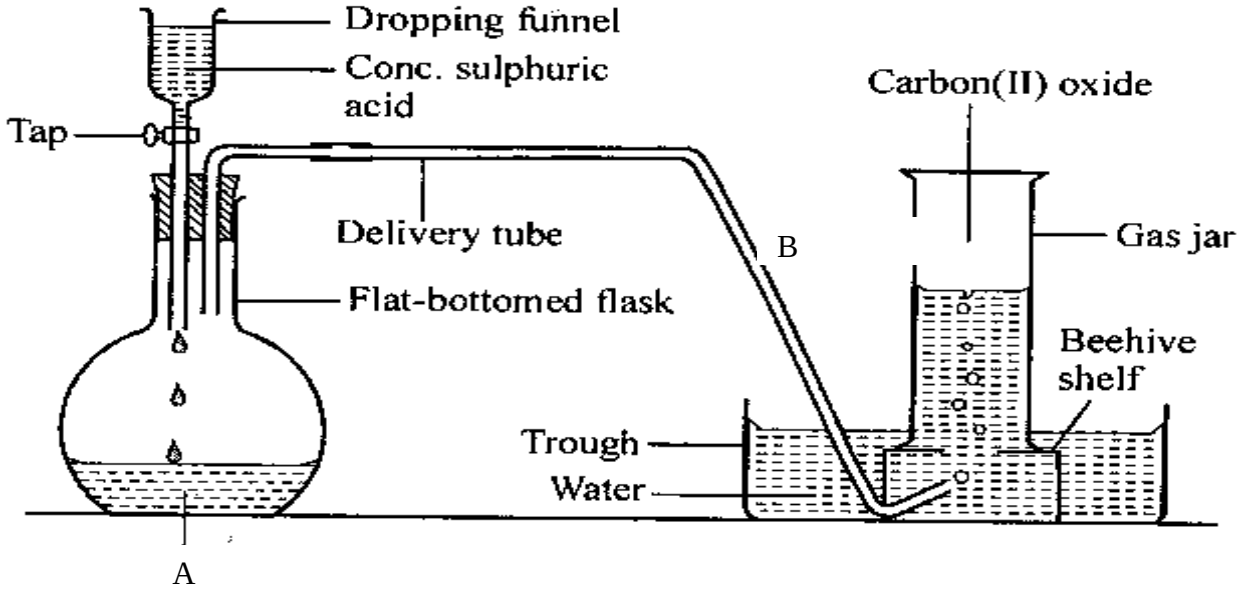
(i) Identify allotrope **(2mks)**

A…… **B……..**

ii) Give a reason why allotrope **A** is used as a lubricant **(1mk)**

(iii) State **one** use of allotrope **B** **(1mk)**

b) The diagram below is a set-up used in the laboratory preparation of Carbon (II) oxide. Use it to answer the questions that follow.



i) Name

A: Substance A **(1 mk)**

B: Apparatus B **(1 mk)**

ii) Write a balanced chemical equation for the reaction-taking place in the flask. **(2 mks)**

iii) State one use of carbon (II) oxide gas **(1 mk)**

c) Give the chemical name of trona ($Na_2CO_3.NaHCO_3.2H_2O$) **(1 mk)**

3. The grid below shows part of the periodic table. Use it to answer the questions that follow. The letters are not the actual symbols.

A								
B				C			D	E
L	F		G	H			J	
						K		

a) i) Write the equation for the reaction that occurs between elements **L** and **D.** **(1 mk)**

ii) Explain why element **H** has a higher boiling points than element **D**. **(2 mks)**

……

……

……

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

……

iv) Compare and explain the atomic radius of **B** and **C.** **(2 mks)**

……

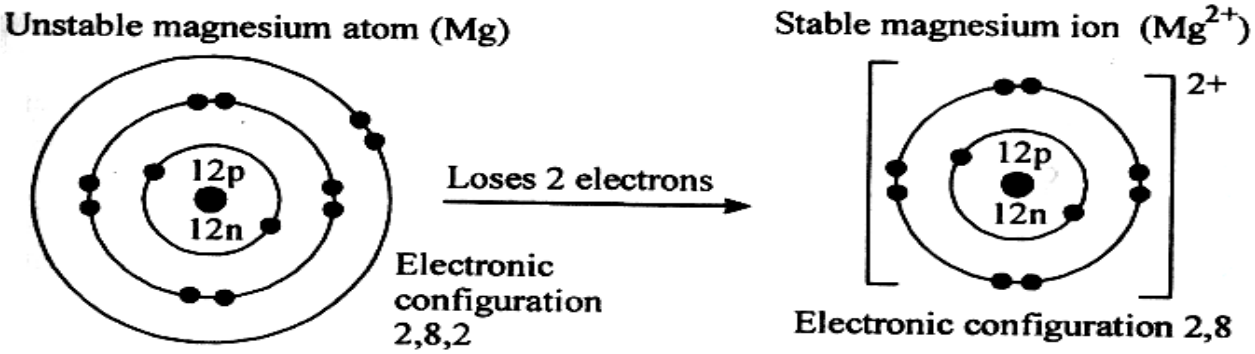
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b) i) Write a balanced equation for reaction between element L and oxygen. **(2 mks)**

ii) 11.5g of **L was** completely burnt in oxygen. Calculate the volume of gas that was used. **(3 mks)**
(L = 23, O = 16.0, molar gas volume at room temperature is $24dm^3$)

c) The ionization of magnesium can be represented diagrammatically as shown in the figure below.



Define the following terms: **(4 mks)**

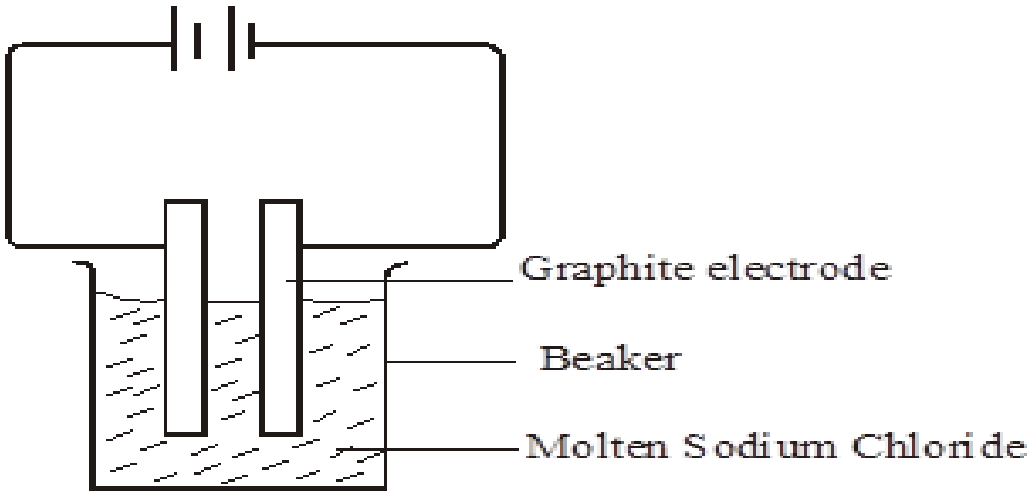
Ionization energy

i) Electron affinity

ii) Electronegativity

iii) Electro positivity

4. a) The diagram below represents an experiment which was carried out by a student, to investigate the effect of passing an electric current on molten sodium chloride.



i) Molten sodium chloride is a binary electrolyte. State the meaning of the term binary electrolyte.

1 mark

ii) State observations made at the

A: anode **1 mark**

B: Cathode **1 mk**

iii) Write an equation to show what happens at the cathode and anode. **2 mks**

At the cathode

At the anode

iv) Show the direction of flow of electrons on the set up **1 mk**

b) Define the following terms; **(4 mks)**

i) Electrolyte

ii) Anode

ii) Cathode

iii) Electrode

c) State the use of the battery (cell) in the electrolytic cell. **1 mk**

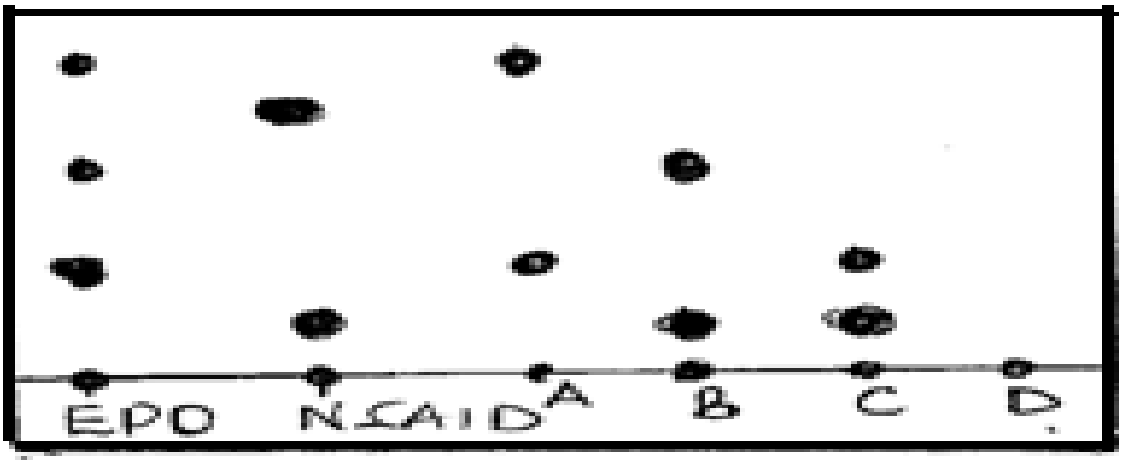
d) State two industrial applications of electrolysis. **2 mks**

……

……

……

5. i) Four athletes A, B, C and D were suspected of using NSAID and EPO drugs as blood boosters to enhance their performance. Their blood samples were taken and analyzed using chromatography. The results obtained were recorded in the chromatogram below.



(a) State and explain two factors that determine the distance travelled by a sample along the filter paper. **(2 mks)**

……

……

……

(b) On the diagram above indicate the baseline and the solvent front. **(1 mks)**

(c) Which athlete(s) tested positive of the use of EPO drug only? **(1 mks)**

……

(d) Which athlete(s) tested positive of use of both EPO and NSAID drugs. **(1 mks)**

……

(e) Which athlete had his blood sample negative of EPO and NSAID drugs? **(1 mk)**

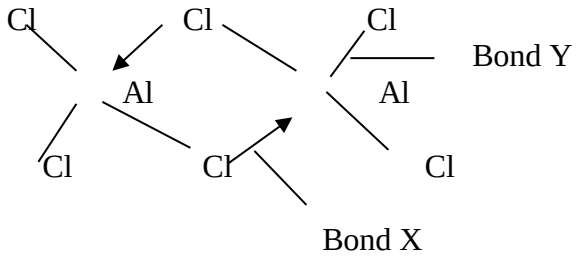
……

(f) Name a suitable solvent used in papers chromatography. **(1 mk)**

……

……

ii) Below is a structure of aluminium chloride dimer. Study it and answer the questions that follow

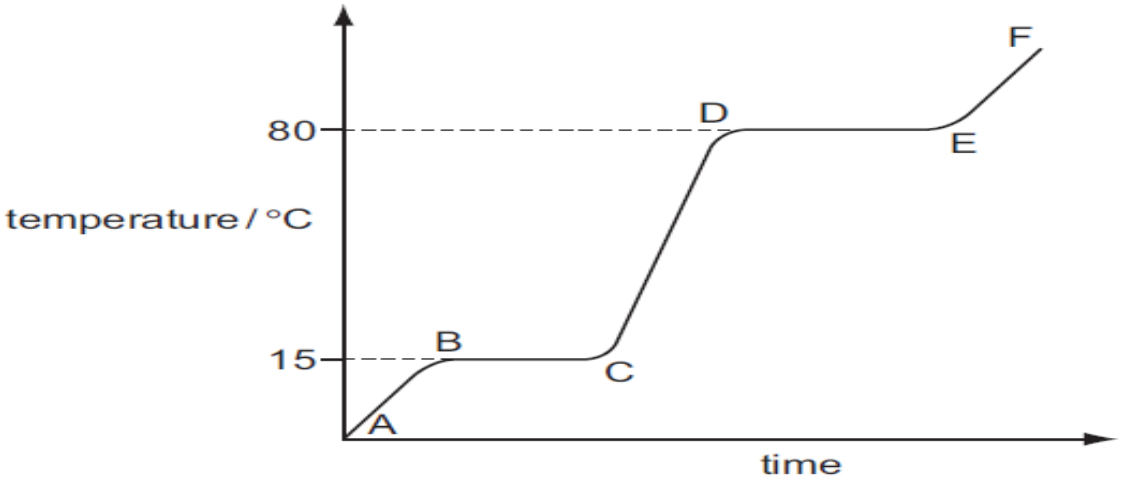


Identify bond

X …….. **(1mk)**

Y …… **(1mk**

6. a) The diagram below shows a heating curve for a sample of compound X.



(i) Is X a solid, a liquid or a gas at room temperatur**e, 20 °C?**

…… **(1mk)**

(ii) Name the change of state which occurs in region DE.

…… **(1mk)**

(iv) Explain how the curve shows that a pure sample of compound X was used. **(1 mk)**

……

……

b) Compound X is a hydrocarbon. It contains 85.7% of carbon. The mass of one mole of X is 84 g.

(i) What is the percentage of hydrogen in the compound? **(1mk)**

……

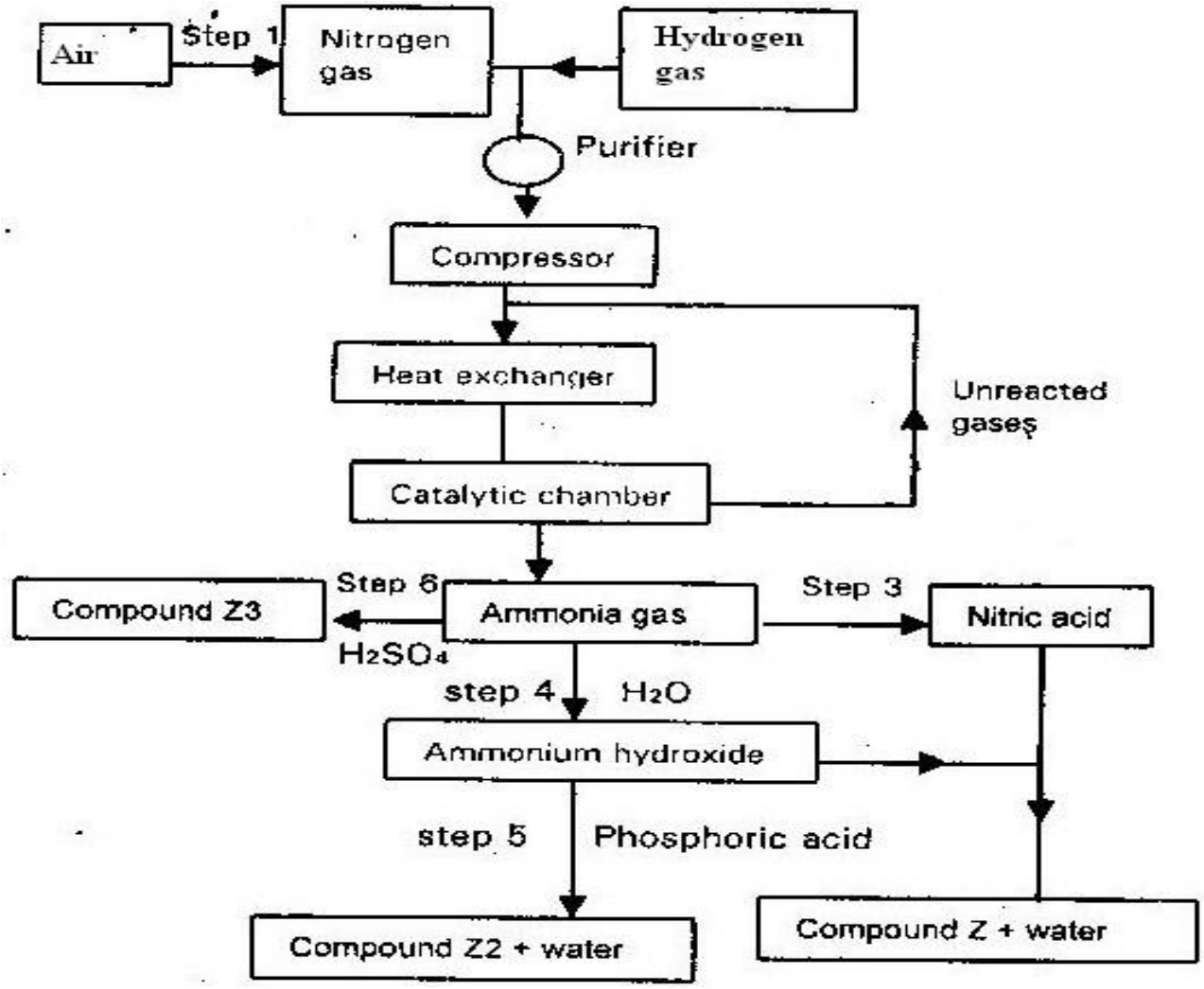
……

(ii) Calculate the empirical formula of X. Show your working. **(3 mks)**

Element	*C*	*H*
RAM	*12*	*1*
% Mass	*85.7*	*14.3*
No. of moles	$\frac{85.7}{12}$ *=7.142*	$\frac{14.3}{1}$ *= 14.3*
Divide by smallest	$\frac{7.142}{7.142}$ *= 1*	$\frac{14.3}{7.142}$ *2*
Empirical formula	CH_2	

(iii) What is the molecular formula of compound X? **(2 mks)**

7. The flow chart below shows the industrialization of ammonia and the process used in the manufacture of some ammonium compounds. Study it and answer the questions that follow



(a) Give the name of the

(i) Process in step 1 **(1 mk)**

(ii) Reaction that takes place in step 5 **(1 mk)**

(b) Write a balanced chemical equation for the reaction between nitrogen and hydrogen.**(1 mk)**

(c) Explain why it is necessary to compress nitrogen and hydrogen in this process **.(2 mks)**

……

……

……

(d) Write an equation for the reaction which takes place in step 6 **(1 mk)**

(e) Name the catalyst and reagents used in step 3 **(2 mks)**

(f) Name compound Z_1 **(1mk)**

(g) Give one commercial used of compound Z_2 **(1 mk)**

FORM 3 ENDTERM 1 EXAMS

SERIES 1

CHEMISTRY

CONFIDENTIAL

In addition to ordinary apparatus

- *Boiling tube*
- *6 test tubes*
- *Solid T (mixture of $CuCo_3$ and zinc sulphate)*
- *$50cm^3$ solution B 0.5MHCL*
- *$100cm^3$ solution C 0.5MNaoH*
- *Burette*
- *Pipette*
- *One conical flask*

Access

- *2MNaoH*
- *2M Ammonium solution*
- *Barium chloride*
- *Dilute Hcl*
- *Dilute Nitric acid*
- *Acidified potassium dichromate.*

FORM 3 ENDTERM 1 EXAMS

SERIES 1

CHEMISTRY

PAPER 3

TIME: 2 HOURS

NAME…… ADM NO; …….

CLASS…… DATE…….

Answer all the questions in the spaces provided.

1. PROCEDURE.

- Pipette 25cm^3 of solution C into a 250ml flask.
- Add 2-3 drops of phenolphthalein indicator.
- Fill the burette with solution B 0.5MHcl then titrate.
- Repeat this procedure two more times.
- Record your result in the table.

Titration	***I***	***II***	***III***
Final burette reading			
Initial burette reading			
Volume of solution B used			

Calculate:

i. The average volume of solution B used. **(2mks)**

……

……

……

ii. Calculate the number of moles of sodium hydroxide solution C pipetted. **(3mks)**

……

……

……

iii. Calculate the number of moles of hydrochloric acid solution B that reacted with sodium hydroxide in (II) above. **(3mks)**

……

……

……

iv. Calculate the molarity of hydrochloric acid solution B. **(3mks)**

……

……

……

2. You are provided with solid T. Carry out the experiment in the table and record the results in the spaces provided.

i. Put all of T in boiling tube. Add 20cm^3 of distilled water and stir gently, filter the product and divide the filtrate into three portion. Retain the residue.

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

ii. To the first portion add a few drops of 2M NaOH solution and then in excess.

Observation (2mks)	***Inferences (2mks)***

iii. To the second portion add few drops of 2M ammonia solution and then in excess.

Observations (2mks)	**Inferences (2mks)**

iv. To the third portion add a few drops of barium chloride solution followed by dilute hydrochloric acid.

Observations (2mks)	**Inferences (1mk)**

3. Add $2cm^3$ of dilute hydrochloric acid to the residue. Ensure some residue remains undissolved. Decant to get a solution. Divide the solution into two portion. Carry out the following experiments.

i. To the first portion add a few drops of sodium hydroxide solution and then in excess.

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

ii. To the second portion add a few drops of ammonia solution and then in excess.

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

Divide the residue into two portions. Carry out the following experiment.

i. To the first portion add a few drops of dilute nitric (IV) acid.

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

ii. To the second portion, add acidified potassium dichromate (IV).

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

FORM 3 ENDTERM 1 EXAMS

SERIES 1

CHRISTIAN RELIGIOUS EDUCATION

PAPER 1

TIME: 2½ HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

Answer Any Five Questions Below

1. Explain the benefits of learning Christian Religious Education in Secondary school in Kenya. **(8mks)**

b) State the national goals of Education**.** **(7mks)**

c) Outline how the teaching of CRE promotes national unity. **(5mks)**

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

b) Explain the importance of God's covenant with Abraham. **(7mks)**

c) What Lessons do Christians learns from the incident when Abraham was willing to sacrifice his son Isaac? **(6mks)**

3. Give reasons why Israelites demanded for a King **(7mks)**

b) State the achievements of Solomon as King of Israel**.** **(6mks)**

c) Identify the causes of power struggle in Kenya today. **(7mks)**

4. Explain Roles of prophets in the Old Testament. **(8mks)**

b) Give reasons why prophet Amos was against the way Israelite worshipped God, **(7mks)**

c) How does God reveal Himself to Christians today? **(5mks)**

5. a) Describe the call of Jeremiah**.** **(8mks)**

b) Identify the evils that prophet Jeremiah condemned Judah. **(6mks)**

c) Outline social evils committed in Kenya today. **(6mks)**

6. Outline rituals performed during the birth of a baby in Traditional African Community**.** **(8mks)**

b) State six specialists in Traditional African Communities. **(6mks)**

c) Highlight six roles of the Ancestors in Traditional African Communities. **(6mks)**

FORM 3 ENDTERM 1 EXAMS

SERIES 1

CHRISTIAN RELIGIOUS EDUCATION

PAPER 2

TIME: 2½ HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

Select any five questions.

1. a) Outline what Angel Gabriel revealed about John the Baptist when he announced his birth to Zachariah**.** **(7mks)**

b) From the story of the early life of Jesus up to twelve years, identify ways through which he is seen as coming from poor background. **(6mks)**

c) Give reasons why children should take part in church activities. **(7mks)**

2. a) Describe the temptation of Jesus in wilderness before He began His public ministry. **(7mks)**

b) What lessons do Christians learn from temptations of Jesus? **(6mks)**

c) Identify problem faced by new converts in church today. **(7mks)**

3. a) Outline events that took place on the Mount of Olives before the arrest of Jesus. **(7mks)**

b) Give reasons why Peter denied Jesus. **(7mks)**

c) Why is death of Jesus important to Christians? **(6mks)**

4. a) Describe the healing of the Gerasene demonic in Luke 8 : 26 – 39. **(8mks)**

b) State ways in Which Holy Spirit was manifested on the day of Pentecost**.** **(6mks)**

c) How are gifts of Holy Spirit misused in Church today**?** **(6mks)**

5. a)Outline the fruits of Holy Spirit as taught by saint Paul (Galatians 5 : 22 – 23**)** **(5mks)**

b) Relate the teaching of Jesus about the unity of believers from the vine and the branches. **(8mks)**

c) Identify ways in which Christians can prevent division in the Church in Kenya today**.** **(7mks)**

6. a) State the teachings of Saint Paul on Love in 1st Corinthians 13. **(8mks)**

b) Identify ways in which disciples of Jesus demonstrated their love for Him. **(7mks)**

c) What activities do Christians engage themselves in to demonstrate their love for God? **(5mks)**

FORM 3 ENDTERM 1 EXAMS

SERIES 1

ENGLISH

PAPER 1

TIME: 2 HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

1. <u>FUNCTIONAL WRITING</u>

Imagine that you are the Organizing Secretary of Micah Isaboke's Graduation Party. Isaboke has graduated with a First Class Honor's Degree from the University of Nairobi.

a) Design an invitation card to be sent to the guests **(12mks)**

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b) Write a congratulatory note to Isaboke to be presented on that day **(8mks)**

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2. CLOZE TEST

Fill each blank space in the following passage with the most appropriate word. (10mks)

The heart pumps blood (1)…….. the body through blood vessels (2) ……..….arteries. Blood pressure is the force placed on the wall (3) …….the arteries by moving blood. Many (4)……. including lifestyle, stress and genetic predisposition can cause a person to have high blood pressure. If (5) ……high blood pressure can lead to strokes, heart disease, loss of sight and kidney problems. Many people suffer from high blood pressure without displaying any (6) ……..…….so the only way to be sure of healthy blood pressure level is to be checked (7)……..……... Any person whose blood pressure is above 140/90 when checked on two separate visits is deemed to have high blood pressure. The medical name for this is 'hypertension'. (8) …….are numner of recommendable treatments including lifestyle changes to prescribed medications that relax blood vessels. (9)…….……. changes include healthy diet with less salt, fat, coffee and tea, cutting down on alcohol (10)…….., quitting smoking, losing weight and coping with stress.

3. ORAL SKILLS (30 MARKS)

i) Read the poem below and answer the questions that follow.

The battle

Helmet and rifle, pack and overcoat
Marched through a forest, somewhere up ahead
Guns thudded, like the Circle of the throat
The night on every side was turning red.

They halted and they dug. They sang like moles
Into the clammy earth between the trees
And soon the sentries, standing in their holes,
Felt the first snow. Their feet began to freeze
At dawn the first snow. Their feet began to freeze

At dawn the first shell landed with a crack
Then shells and bullets swept the icy woods.
This lasted many days. The snow was now black.
The Corpse stiffened in their scarlet hoods.

Most clearly of that battle I remember
The tiredness in the eyes, how hands looked thin
Around a cigarette, and the bright ember
Would pulse with all the life there was within.

(Louis Simpzon)

a) Comment on the rhyme pattern of the poem above. **(3 marks)**

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b) How would you say line 13 of this poem? **(2 marks)**

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c) Give **<u>two</u>** examples of onomatopoeia used by the poet in the poem above. **(2marks)**

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d) Write **one** word with an /i:/ sound in the poem. **(1 mark)**

……

ii) Read the following short form of the Oral Literature and answer the questions that follow. (4 marks)

The short Spanish soldier shot the short Swedish soldier on the shoulder.

a) Identify the genre above. **(1mark)**

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b) Which is the predominant sound pattern in the form above? Illustrate your answer. **(2 marks)**

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c) What is lost when the genre above is translated into another language? **(1 mark)**

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iii) Pick out the word which is the odd one out from each of the sets of words given below. (3 marks)

a) watched,wanted,laughed,rushed……

b) depot, report, rapport, debut ……

c) enough, graph, staff, dough ……

iv) Give another word that is pronounced the same way as the following.(4 marks)

a) Bow ……..

b) Cue ……..

c) Lane ……..

d) One ……..

v) Underline the stressed syllable in the following words. (5 marks)

a) di.scuss

b) ques.tion

c) gra.cious

d) po.lite

e) de.spite

vi) You recently attended an interview which you failed. Mention some of the reasons that could have contributed to your failure. (4 marks)

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vii) Indicate the kind of intonation you would use for the following. (2 marks)

i) What was your School mean score?

……..……

ii) Did you revise for your exam?

……..……

FORM 3 ENDTERM 1 EXAMS

SERIES 1

ENGLISH

PAPER 2

TIME: 2½ HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

1. ***Read the passage* below *and answer the questions that follow.*** **(20mks)**

One good thing about music, Bob Marley sang in Trenchtown Rock, is when it hits you, you feel no pain – but for South Africa's apartheid regime, the opposite was true as it felt the wrath of musicians who composed protest songs against its oppressive policies.

During the apartheid years, music was more than a solace – it was a "weapon of struggle" used against the aggressor whose only recourse was to ban it from the airwaves, but never from the hearts of the millions who were oppressed.

Music had always been used to soothe souls during sufferance and it is said that it is slavery that gave birth to (heavy metal) rock when slaves used their shackles or tools to make music either to entertain themselves or to irk their captors.

The separatist system that saw people like Nelson Mandela and other black South African leaders jailed for dissidence gave rise to more protest music than ever before.

And South Africa's anti-apartheid musicians were so influential that their songs were not only banned, but they were also forced into exile. Mandela believes that these protest songs, together with those of non-South Africans, played a significant role in the collapse of apartheid and, indeed, his February 11, 1990 release from Robben Island.

"Artistes reach areas far beyond the reach of politicians. Art,especially entertainment and music, is understood by everybody, and lifts the spirits and the morale of those who hear it," Mandela admitted after his release.

South Africa's musicians like Hugh Masekela and the MirimaMakeba started the protest campaign back in the late '50s and early '60s after leaving South Africa for the United States, where they used music to highlight the desperate situation of their compatriots who were living under oppressive rule in the townships back home.

The Musical campaigns against apartheid intensified internationally throughout the'70s and '80s and saw the composition, production and performance of many a political song by musicians who had never even set foot in African but were inspired to join the anti-apartheid bandwagon- with some, like Paul Simon, even stirring controversy when he was accused of breaking the cultural boycott against South Africa by touring the country and utilizing contributions from local acts.

But the beat never stopped. In the UK, The Specials released Free Nelson Mandela while in the US, Gil Scott-Heron and Brian Jackson released protest classic Johannesburg off the album From South Africa to South Carolina. Little Steven (and the Disciples of Soul), together with Artists United Against Apartheid, conceived and produced Sun City Resort in one of South Africa's so-called homelands where international Musical concerts were frequently held.

Adopted from Sunday Nation December 8th 2013.

(a) What type of music is the author referring to in the **passage** **(1 mark)**

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(b) According to the passage what were the contributions of the anti-apartheid musicians. **(2 marks)**

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(c) Who are the international singers who joined the musical campaigns against apartheid. **(3mark)**

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(d) Artistes reach areas far beyond the reach of politicians (add a question) **(1 mark)**

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(e) Make notes on the titles of songs sung against the apartheid regime **(4marks)**

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(f) Identify the setting of the passage **(2 marks)**

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(g) ***Paraphrase the following sentence***

"artists reach areas far beyond the reach of politicians. Art, especially entertainment and music is understood by everybody, and it lifts the spirits and the morale of those who hear it " **(3 mark)**

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(h) Give this passage another **title** **(1 mark)**

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(i) ***Explain the meaning of the following words and phrases*** **(3 marks)**

(i) irk their captors

……

(ii) dissidence

……

(iii) stirring controversy

……

2. THE SAMARITAN(25mks)

Read the excerpt below and answer the questions that follow (25 marks)

Seymour: Like who?

Ted: They are quite a number. Hon. Ferreira, or Mr. Key, ag they call him, is the best example. This man has never seen a fence on which he can't sit, I-le can hardly ever commit to any side. We chatted at length, and he kept talking in circles, citing proverbs and idioms here and there.

Ramdaye: I wonder why they called him Mr. Key. I hear he can never make up his mind which door to open or in fact, whether to open any door at all!

Seymour: So, what did he say?

Ted: He said that what will be, will be because something certainly will be.

Ramdaye: Is that a proverb?

Ted: I have since been wondering whether it is, but he also said you don't cross the bridge until you get to it. Seymour: Which bridge now?

Ted: I am not sure which bridge he meant, but I guess he must have been talking about the cases, in case we are sued.

Ramdaye: What an upstart he is! I hear he even has difficulties deciding what and how much to eat!

Seymour: You talked of different categories. What are the other

Ted: The other category comprises the majority. I would best describe them as the headless type.

Ramdaye: Headless?

Ted: Yes, they have brains, alright', but they don't use them.

Seymour: How on earth?

Ramdaye: You mean they're like a headless chicken?

Ted: Exactly! They are headless chicken. They follow 'the, leader of their ethnic group who thinks for them. And they wait for that leader to make decisions for them in all matters, including the decision to go to pee. Most members of the People's, Party of Mr. Basdeo belong here, and so do the members of Mossi's Liberal Party.

Seymour: I thank God I don't belong to any ethnic group,

Ted: Then, there is what I can best describe as the entrepreneurs, very keen on making money. They vote with the stomach, so to speak, that means they will vote the side that gives more money.

Seymour: Are you saying they demanded money to support the no confidence motion?

Ted: Yes, that was my understanding. I indicated funds would be available. They promised to deal as soon as money changes hands.

QUESTIONS

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

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b) Describe character of Hon, Perreira and Hon, Ted in this excerpt **(4 marks)**

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c) Identify and illustrate two stylistic devices used in this excerpt. **(4 marks)**

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d) What cases is Hon. Ted referring to in this excerpt? **(4 marks)**

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e) Then, there's what I can best describe as the entrepreneurs, very keen on making money. 'Rewrite using a relative clause, **(1 mark)**

f) Identify two themes addressed in this excerpt.

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g) Explain why the leaders in this excerpt are planning a vote of no confidence. **(2 marks)**

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h) Explain the meaning of the following expressions as used in the excerpt. **(2 marks)**

Upstart

Vote with the stomach

3. ***Read the poem below and answer the questions that follow***

The earth does not get fat.
It makes an end of those who wear the head plumes.
We shall die on the earth.
The earth does not get fat. It makes an
end of those who act swiftly as heroes
Shall we die on the earth?
Listen O earth. We shall mourn because of you.
Listen O earth. We shall die on the earth?

The earth does not get fat. It makes and an end of chiefs.
Shall we die on the earth?
The earth does not get fat.
It makes an end of the women chiefs
Shall we die on the earth?

The earth does not get fat. It makes an
end of the royal women
Shall we die on the earth?
Listen O earth. We shall mourn because of you.
Listen O earth. We shall die on the earth?

The earth does not get fat. It makes an end of the beast
Shall we die on the earth?
Listen you who are asleep, who are
left tightly closed in the land.

Listen you who are asleep, who are
Left tightly closed in the land.
Shall we all sink into the earth?
Listen O earth, the sun is setting tightly
We shall all enter into the earth.

(a). Identify the genre above **(2 marks)**

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(b). Explain the functions of the above genre **(4 marks)**

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(c). Explain the meaning of the words, "The earth does not get fat**"** **(2 marks)**

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(d). Identify **two** aspects of style and comment on their effectiveness **(6 marks)**

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(e). What is the speaker's attitude towards the subject**.** **(2 marks)**

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(f). Explain Two characteristics of the genre **above** **(2 marks)**

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(g) Under what circumstances is the genre likely to be performed and for what purpose**?** **(2 marks)**

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3. ***Rewrite the following sentences according to the instructions after each*** **3 marks)**

(a) You can do better than this. (Begin: This ……..)

(ii) Having failed once, I do not want to fail again. (Begin. As……)

(iii) The teacher asked Kamau if he would go home that day or the following day. (Change to direct speech)

(b) ***Using the verbs in brackets, replace the underlined words and phrases with correct phrasal verbs*** **(3 marks)**

(i) The two friends met each other accidentally……..(run) in town

(ii) The city council askariesdemolished …….kiosks in the city Centre (bring)

(iii) Otieno visited ……..us on his way to town (call)

(c) ***Complete each of the following sentences with the appropriate prepositions*** **(3 marks)**

(i) Many people think that manual labour is……their dignity

(ii) The judge was prejudiced……the accused from the beginning.

(iii) John has retired……private life.

(d) ***Supply one word which means the same as the underlined phrases in the following sentences*** ***(2 marks)***

(i) The man who broke into the house was finally arrested……..

(ii) The kitchen was filled with a pleasant smell from the day's recipe

(e)***<u>Explain the differences in meaning between the sentences in each of the pairs given below</u>***

(4 marks)

I. I saw parents in the school library

II, I saw "parents" in the school library

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I. His brother who lives in Lamu is a mechanic

II. His brother, who lives in Lamu, is a mechanic

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FORM 3 ENDTERM 1 EXAMS

SERIES 1

ENGLISH

PAPER 3

TIME: 2½ HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

Instructions

(a)*Answer all the three questions.*

(c)In question one, choose one composition either a or b.In question 2, all the questions are compulsory.

1. IMAGINATIVE COMPOSITION. **(20MARKS)**

Either:

a)Write a composition beginning:
Looking at my father, I knew my brother and I were in hot soup.....

Or

Write a story to illustrate the saying
"All that glitters is not gold"

2. THE COMPULSORY SET TEXT
FATHERS OF NATIONS

"Greed is dehumanizing." Drawing your illustrations from Fathers of Nations by Paul B. Vitta write an essay supporting this statement.

(20 marks)

3. COMPULSORY QUESTION- THE SAMARITAN by John Lara

Change is inevitable if you're determined to see good prevail over evil. Discuss with reference to **The Samaritan by John Lara.** **(20 marks)**

FORM 3 ENDTERM 1 EXAMS

SERIES 1

GEOGRAPHY

PAPER 1

TIME: 2¾ HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

SECTION A

1. a) What is the relationship between Geography and Mathematics? **(2mks)**

b) State four reasons why it is important to study Geography. **(4mks)**

2. a) Name the two layers of discontinuity that are part of the interior structure of the earth. **(2mks)**

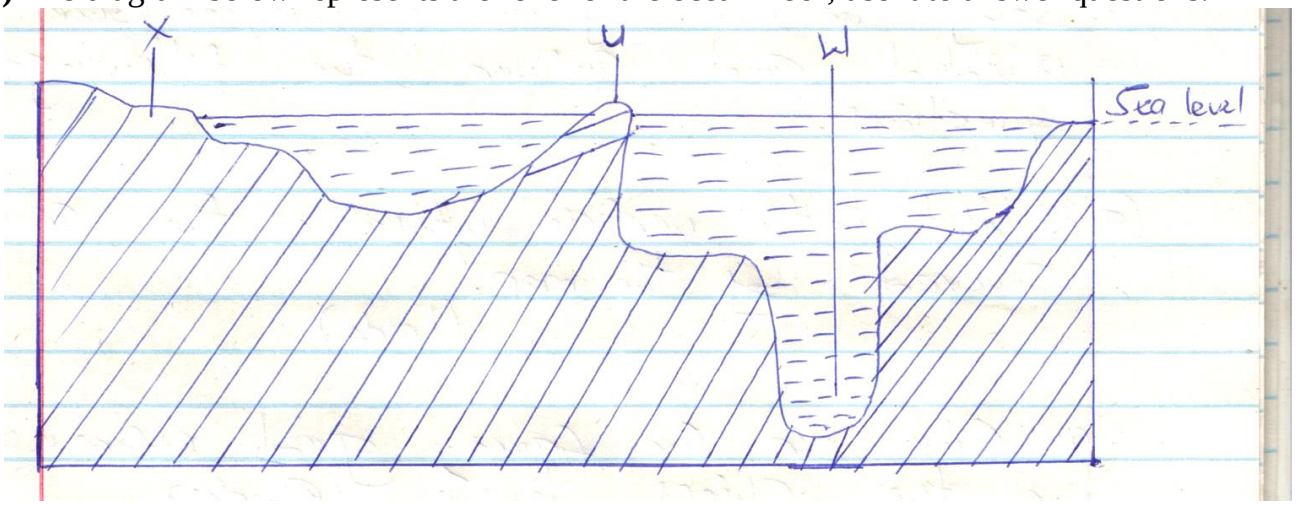
b) State three characteristics of the outer core in the interior structure of the earth. **(3mks)**

3. a) Name two forms of precipitation that commonly occur in Kenya. **(2mks)**

b) What is a Stevenson's Screen? **(2mks)**

4. a) Identify two causes of earth movements. **(2mks)**

5. a) The diagram below represents the relief of the ocean floor, use it to answer questions.



i. Name the features marked U, W and X. **(3mks)**

X

W

U

ii. Give three reasons why ocean are saline. **(3mks)**

b) State one characteristic of Rift Valley lakes. **(1mk)**

c) Name one salt water lake that lies north of the equator in Kenya. **(1mk)**

SECTION B.

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

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

i. What type of map is Kisumu East map extract? **(1mark)**

ii. Give two scales that have been used in the map extract. **(2marks)**

iii. What is the bearing of the trigonometrical station at grid square 0383 from the Air Photo Principal Point at grid square 0281? **(2marks)**

(b). i. Measure the length of the All Weather Road Bound Surface B2/1 from the junction at Grid square 9793 to the western edge of the map extract. Give your answer in kilometer**. (2marks)**

ii. What is the altitude of the highest point in the area covered by the map**? (2marks)**

(c). Draw a rectangle measuring 16cm by 10cm to represent the area enclosed by Eastings 02 and 10 and Northing 90 and 00. **(1mark)**

On the rectangle, mark and name the following. **(4marks)**

- Nyando escarpment.
- All Weather Road Bound Surface C543/1
- Prison
- Agricultural Sugar Research Station.

(d). i. Describe the drainage of the area covered by the map. **(5marks)**

ii. Citing evidence from the map, identify three social services offered in Kisumu Municipality.

7. Define chemical weathering. **(2mks)**

a. Explain how crystal growth leads to weathering. **(5mks)**

b. Geography students in your school are planning to carry out a field study on rock weathering around your school.

i. Apart from crystal growth, name five other mechanical weathering processes they are likely to study in the area. **(5mks)**

ii. State five importance of each of the following for your study.

a. Reconnaissance **(5mks)**

b. Working schedule **(5mks)**

iii. Which three problems are you likely to experience while collecting the data in the field? **(3mks)**

8. Describe how a river erodes its channel through the following processes. **(6mks)**

i. Abrasion

ii. Solution

iii. Hydraulic action

b. Explain four ways through which a river transports its load. **(8mks)**

c. State three factors that determine a river ability to transport its load. **(3mks)**

ii. Highlight four ways through which a gorge may be formed. **(4mks)**

iii. State four significance of rivers in Kenya. **(4mks)**

9. What is an earthquake? **(2mks)**

i. Using a simple diagram explain the following terms. **(5mks)**

Epicenter

Seismic focus

Shockwaves travel outwards

b. Explain four human causes of Earthquake. **(8mks)**

ii. Name the two types of Earthquake waves. **(2mks)**

c. Differentiate between:

i. Deep focus earthquake and shallow focus Earthquake**.** **(2mks)**

ii. Richter scale and mercallic scale. **(2mks)**

d. List four regions of the world where earthquakes are likely to occur. **(4mks)**

10. Distinguish between an ocean and a sea. **(4mks)**

ii) State three types of submerged coasts. **(3mks)**

iii) Explain two ways in which water moves in an ocean. **(4mks)**

iv) Explain four significance of oceans, coasts and coastal features. **(8mks)**

v. Describe the formation of the following features due to wave erosion. **(6mks)**

a. Wave cut platform and cliff.

b. Geo

FORM 3 ENDTERM 1 EXAMS

SERIES 1

GEOGRAPHY

PAPER 2

TIME: 2¾ HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

SECTION A:

Answer ALL questions in this section in the spaces provided.

1. (a) Define the term environment. **(2mks)**

(b) State two types of environment. **(2mks)**

(c) Highlight three sources of pollution in the environment. **(3mks)**

2. (a) Identify three factors that influence the exploitation of minerals. **(3mks)**

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

i) Diatomite. **(1mk)**

ii) Salt **(1mk)**

3. (a) Distinguish between forest and forestry. **(2mks)**

(b) Identify three activities that may be undertaken in your school to conserve trees. **(3mks)**

4. The table below represents the rainfall and temperature data of station for one year. Study it and answer the questions that follow.

Month	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Rainfall in (mm)	5	10	33	40	60	100	75	40	30	15	5	5
Temp ^{o}C	23	24	25	27	27	29	28	27	26	25	24	24

a) Calculate the following;

i) Annual temperature range. **(2mks)**

ii) Mean monthly temperature. **(2mks)**

iii) Annual rainfall. **(2mks)**

5. Differentiate between field study and an excursion. **(2mks)**

SECTION B:

Answer ALL Questions in this particular section

6. (a) Name the major natural forests of the world. **(3mks)**

(b) Explain four factors that influence distribution of natural forests**.** **(8mks)**

(c) Highlight comparisons softwood forests in Kenya and Canada. **(6mks)**

(d) State three species of softwood found in Kenya and Canada respectively. **(3mks)**

Kenya –

Canada –

(e) Explain two problems facing forestry in Kenya. **(4mks)**

(f) State one importance of forest exploitation in Kenya. **(1mk)**

7. Study the table below of a station B in a month of July and answer the following questions.

NE	E	S	N	SW	SE	W	NW	CALM
3	1	2	3	7	1	6	4	4

a) Use a suitable cartographic technique to represent the data. **(8mks)**

b) (i) State advantages of using the method in (a) above to represent the data. **(4mks)**

(ii) State the disadvantages of using the method. **(3mks)**

c) (i) State five significances of statistics. **(5mks)**

d) Name three methods of recording statistical data. **(3mks)**

e) Differentiate between primary and secondary data. **(2mks)**

8. Study the photograph below and answer the questions that follow.



a) (i) Name the mining method shown in the photograph. **(1mk)**

(ii) Describe how minerals are obtained using the method shown in the photograph. **(5mks)**

b) Using evidence from the photograph suggest the time of the day when the photograph is likely to have been taken. **(2mks)**

c) Apart from the method shown in the photograph, name four other mining methods. **(4mks)**

d) Name three problems the method used in the photograph can cause to the environment. **(3mks)**

e) Explain five ways in which Kenya has benefited from the mining of soda ash in Lake Magadi. **(10mks)**

FORM 3 ENDTERM 1 EXAMS

SERIES 1

HISTORY &GOVERNMENT

PAPER 1

TIME: 2½ HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

SECTION A: 25 MARKS)

Answer all the questions from this section.

1. Give one unwritten source of information on the history of East African Coast. . **(1 mk)**

2. Name two areas where the Suba settled in Kenya. **(2 mks)**

3. Outline ways by which one can become a Kenyan citizen. **(2 mks)**

4. Give the dispersal area of the Eastern Bantu. **(2 mks)**

5. State the historical monument left behind by the Portuguese. **(1 mk)**

6. Give two characteristics of human rights. **(1 mk)**

7. Mention two Kenyan communities who offered a mixed reaction to British colonization. **(2 mks)**

8. Outline one way in which the colonial government controlled the migration of Africans into urban centers. **(1 mk)**

9. What problems did the British Imperial East Africa Company encounter in administering the Kenyan protectorate? **(2 mks)**

10. State two operational bases established by the Imperial British East Africa Company in Kenya. **(2 mks)**

11. Identify two aspects of History. **(2 mks)**

12. State two advantages of using arbitration as a method of solving conflicts. **(2 mks)**

13. What was the main reason for the signing of Heigoland treaty of 1890? **(1 mk)**

14. State two ways in which education promotes national unity in Kenya. **(2 mks)**

15. Mention two circumstances under which an individual freedom of movement may be limited in Kenya. **(2 mks)**

16. Give two types of democracy. **(2 mks)**

SECTION B: 45 MARKS)

Answer three questions from this section.

17. (a) Give five reasons why the Bantu migrated from their coastal settlement in Shungwaya. **(5 mks)**

(b) Describe social organization of the Luo during the pre-colonial period. **(10 mks)**

18. (a) What were the roles of mission stations in the spread of Christianity in Kenya in the 19th century? **(3 mks)**

(b) Explain six factors that facilitated missionary work in Kenya in the 19th century. **(12 mks)**

19. (a) Mention three African women who resisted British colonial rule. **(3 mks)**

(b) Explain the causes of Agiriama resistance against the British colonial rule. **(12 mks)**

20. (a) Describe the reasons for the Akamba participation in long distance trade. **(8 mks)**

(b) Give challenges facing industrial growth in Kenya. **(7 mks)**

SECTION C: 30 MARKS)

Answer any two questions from this section.

21. (a) Give five reasons why national integration is important. **(5 mks)**

(b) Explain the causes of conflicts among the people of Kenya today. **(10 mks)**

22. (a) Give five circumstances under which a person's right to personal liberty may be limited in Kenya. **(5 mks)**

(b) Explain five rights enjoyed by persons with disabilities in Kenya. **(10 mks)**

23. (a) Identify any three methods used by Europeans to establish their rule in Kenya. **(3 mks)**

(b) Explain the results of Nandi resistance. **(12 mks)**

FORM 3 ENDTERM 1 EXAMS

SERIES 1

HISTORY &GOVERNMENT

PAPER 2

TIME: 2½ HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

SECTION A: (25 MARKS)

Answer all the questions from this section.

1. State the main characteristic of the stone age era. **(1 mk)**

2. Identify the methods of irrigation used by early Egyptian farmers. **(2 mks)**

3. State two results of the interaction between the Shona and the Ndebele during the pre-colonial period. **(2 mks)**

4. Identify the main features of colonial rule in Zimbabwe. **(2 mks)**

5. State the most important unifying item of the Asante Kingdom in the left 19th century.**(1 mk)**

6. Mention two early forms of written communication. **(2 mks)**

7. State the two main duties of the Indigenous rulers in Northern Nigeria. **(2 mks)**

8. State one main reason for the use of barter trade in the Trans-Saharan trade. **(1 mk)**

9. What name was given to Kinjeketile's whispering campaign of spreading his ideas during the Maji maji rebellion. **(1 mk)**

10. State two factors that influenced the Neolithic revolution. **(2 mks)**

11. Who is credited with the invention of the cotton gain? **(1 mk)**

12. Identify two types of Monarchical government. **(2 mks)**

13. How does Jean Jacques Rousseau define government? **(1 mk)**

14. Give one scientific discovery in the field of medicine in the 19th century. **(1 mk)**

15. Give one physical feature of Austrolopithecus Boisei. **(1 mk)**

16. Identify two places where Olduwan tools were found. **(2 mks)**

17. Give one problem experienced by using steam for energy. **(1 mk)**

SECTION B: (45 MARKS)

Answer any three questions from this section.

18. (a) Identify three advantages of space exploration. **(3 mks)**

(b) Explain six economic effects of modern road transport. **(12 mks)**

19. (a) Give five reasons for the failure of the Maji maji rebellion. **(5 mks)**

(b) Explain five reforms introduced by Germans after the Maji maji uprising. **(10 mks)**

20. (a) State three factors leading to development of Athens. **(3 mks)**

(b) Discuss the impact of Agrarian and Industrial development on urbanization**.(12 mks)**

21. (a) Give three reasons for the coming of missionaries to Africa. **(3 mks**)

(b) Discuss six obstacles missionaries encountered in spreading Christianity. **(12 mks)**

SECTION C: (30 MARKS)

Answer any two questions from this section.

22. (a) Give five factors for the failure of assimilation policy in French West Africa.**(5 mks)**

(b) Explain the effects of British rule in Zimbabwe. **(10 mks)**

23. (a) State three factors that have led to growth of Johannesburg. **(3 mks)**

(b) Identify six problems facing industrialization in South Africa. **(12 mks)**

24. (a) State three functions of the Katikiro of Buganda during the pre-colonial period.**(3 mks)**

(b) Describe the social organization of the Shona during the pre-colonial period**.(12 mks)**

FORM 3 ENDTERM 1 EXAMS

SERIES 1

KISWAHILI

KARATASI YA 1

MUDA: SAA 1½

NAME……. ADM NO; ……..

CLASS…… DATE……..

MAAGIZO:

1. Jibu maswali mawili.

2. Swali la kwanza ni la lazima.

3. Chagua swali moja kati ya maswali matatu yaliyobaki.

4. Kila insha isipungue maneno 400.

Maswali:

1. Lazima:

Andika mahojiano kati ya mwalimu mkuu na mzazi wa mwanafunzi aliyepotoka kimaandili.

(ala 20)

2. Rununu zimeleta madhara mengi kuliko faida. Jadili. **(ala 20)**

3. Andika kisa kudhihirisha ukweli wa methali.

'Nazi mbovu harabu ya nzima.' **(ala 20)**

4. Andika insha itakayomalizia kwa maneno haya. **(ala 20)**

'…….nilipo yakumbuka maneno hayo ya mama, nilihisi laity ningalijua.

FORM 3 ENDTERM 1 EXAMS

SERIES 1

KISWAHILI

KARATASI YA 2

MUDA: SAA 2

NAME……. ADM NO; ……..

CLASS…… DATE……..

1. **UFAHAMU (ALAMA 15)**

Soma kifungu kifuatacho kisha ujibu maswali

Haki za watoto na wanawake

Makamishina wa Tume za Haki za Binadamu, waandalizi, waalikwa, watoto, mabibi na mabwana. Kwa muda mrefu kumekuwa na tofauti katika uhusiano baina ya wanajamii. Tofauti hizi zimewapelekea wanawake na watoto kudunishwa. Udunishaji unachukua mwelekeo mbaya zaidi kama watoto ni wa kike.

Kupuuzwa kwa wanawake na watoto kuna historia ndefu. Jambo hili limepata **usugu** kutokana na imani hasi **zilizoota akilini** mwa wanaume na hata wanawake. **Rasilimali** na majukumu yamegawanywa kwa misingi inayowatabakisha wanajamii kuanzia wanaume, wanawake halafu chini kabisa watoto. Katika jamii nyingi, wanawake na watoto wa kike hawarithi ,chochote ingawa ndio wenye mchango mkubwa katika uzalishaji mali. Aidha mchango wao kuhusu masuala muhimu nyumbani na katika jamii hupuzwa hate kama wamesoma kutiko waume na akina baba zao.

Inasikitisha kuwa wanawake na watoto hawana sauti kuhusu uamuzi nyumbani. Wao hulazimishwa kutenda wanavyoamriwa na wanaume.Kwa mfano, si ajabu mwanamke kulazimishwe kupika pombe na watoto kusukumizwa kwenda kununua sigara. Yote haya ni kinyume cha matarajio ya Umoja wa Mataifa kuhusu haki za binadamu.

Ili kuzuia tabia ya ‘ujuaji’, wanaume wengi hupiga marufuku redio, simu, magazeti na televisheni kwa wanawake na watoto. Amri hii hutekelezwa vikali ill wahusika wasijifunze tabia ye **kukaidi amri**za wazee. Pengine hii ndiyo sababu katika jamii fulani, neno mzee lina maana moja tu; ya wanaume waliokomaa kiumri wale si wenawake. Hii si kweli.

Haki za binadamu ni msingi we utu. Bila haki hizo mwanadamu hawezi kutumia vipawa na uwezo wake wa kiakili na kihisia kikamilifu.Udunishaji wa wanawake na watoto unapingana na ukweli huu. Imanipotofu zinazoendeleza uovu huu zimejikita akilini na katika utamaduni. Zinahitaji kuondolewa. Nafurahi kuwa **mmeibua** mikakati thabiti ya kulipiga vita tatizo hili. Kwa kweli,

sherehe kama hizi ni muhimu sana katika kuwafumbua macho wadau kuhusu haki za wanawake na watoto. Naamini hotuba zilizotolewa hapa zitakuwa mbegu zitakazochipua mabadiliko katika fikra na matendo ye watu. Yafaa watu wakubali kuwa mke na watoto ni wenza na wadau katika safari ndefu ye maisha.

Nimeona mabango, maigizo, ngoma na michoro ya waume kwa wake, wazee kwa watoto na wavulana kwa wasichana kuhusu made hii. Ujumbe umewasilishwa wazi. Ni **moyo uliofumwa kwa chuma** tu ambao hauwezi kuathiriwa na ujunibe kuhusu nafasi ya wanawake kurithi na kusikilizwa. Lakini vita vya panga haviamuliwi kwa fimbo. Kilichobaki sasa ni kufanya utatiti wa kukusanya data kuhusu mielekeo na itikadi zinazopingana na lengo letu. Kutokana na matokeo, mikakati iwekwe ili kuvunja nguvu, desturi zinazochochea taasubi za kiume.

Mabibi na mabwana, yapasa juhudi zifanywe za kusambaza habari kuhusu umuhimu wa kuheshimu na kujali binadamu wote na mchango wao. Aidha hatuna budi kuhakikisha nafasi sawa kwa kite mtu kutoa maoni na kusikizwa. Litakuwa jambo la kusikitisha kama jamii itasahau mchango wa wanawake na watoto katika kuzalisha na kulinda mali. Twahitaji kuondoa uoga kutoka kwa mama zetu wasiotaka mabadiliko. Sekta zote za umma lazima zijitahidi kutekeleza haya.

Ningependa kuwakumbusha kuwa kanuni za ubalozi haziniruhusu kuingilia masuala ya ndani ya nchi hii. Hata hivyo, nalazimike kushauri jambo moja. Nashauri ibuniwe Wizara ya Maendeleo ya Wenawake,

Vijana na Watoto. Wizare hii itakuwa na jukumu Ia kuondoa vikwazo dhidi ya wanyonge.

Kubuni wizara tu hakutasaidia. Wakereketwa washawishi mabadiliko katika sheria kuhusu wanawake na watoto hasa wajane na mayatima. **Wanaharakati** nao yapasa wahakikishe kuwa sheria hizo zinaheshimiwa. Shirika langu liko tayari kutoa msaada wa kifedha na kitaaluma kwa sababu hii.

Mambo haya yasikomee hapa. Mrudi mlikotoka na mbuni vikundi vya kutuatilia mapendekezo yaliyotolewa. Ni muhimu kusambaza mliyojifunza hapa ili mambo hayo yapenye kila nyumba.Asanteni.

(a) Tambua na kuthibitisha anayehutubia washika dau. **(al.2)**

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(b) Eleza mielekeo hasi inayopeleka wanawake na wanaume hudunishwa. **(al.4)**

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(c) Kwa kuzingatia swala ibuka la haki,orodhesha haki zozote tatu ambazo wanaume na watoto wananyimwa **(al.3)**

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(d) "Vita vya panzi haviamuliwi kwa fimbo" **(al.2)**

Fafanua

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(e) Taja mchango wa mwandishi wa hotuba hii katika kuirekebisha hali hii ya kudumisha wanawake na watoto. **(al.2)**

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(f)Eleza maana ya

(i) Kukaidi amri

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(ii) Moyo uliofumwa kwa chuma

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2. UFUPISHO

Ujambazi wa kimataifa ni tatizo lililowasumbua walimwengu kwa muda mrefu sana. Serikali nyingi zimetumia mapesa mengi kwa miaka mingi sana zikijitahidi kupambana na janga hili. Hata hivyo, fanaka haijapatikana, wala haielekei kamwe kuwa itapatikana leo au karne nyingi baadaye.

Yumkini tatizo kubwa lililopo ni kuhusu jelezi Ia dhana ya "ujambazi" tena "Wa kimataifa". Hili ni tatizo mojawapo na yapo mengi sana. Tatizo la pili ni kiburi. Kuna wale watu binafsi na hasa viongozi wa nchi kubwakubwa na serikali zao zilizojiaminisha kuwa ujambazi ni balaa kweli, tena belua, lakini huo ni wa huko, wala hauwezi kuwagusa licha ya kuwashtua wao.

Kulingana na maoni ya watakaburi hao, ujambazi ni wa watu 'washenzi' wasiostaarabika, wapatikanao katika nchi zisizoendelea bado. Ujambazi pekee wanaouona unafaa kukabiliwa ni dhidi ya mbubujiko wa madawa ya kulevya uliosabäbishwa na vinyangarika kutoka nchi hizo

maaluni za “ulimwengu wa tatu”. Kulingana na wastaarabu wa nchi zilizoendelea, vinyangarika hivi ndivyo hasa adui mkubwa wa ustaarabu ulimwenguni na ni sharti vifagiliwe mbali bila huruma. Baada ya kusagwasagwa, ulimwengu mstaarabu utazidi kutononoka na ahadi ya mbingu hapa ardhini itakamilika.

Imani ya watu hawa ya kuwa ujambazi wa kimataifa, hata iwapo upo, hauwezi kuwashtua wala kuwatingisha wao ilikuwa kamili na timamu. Ilikuwa kamili na timamu hadi hapo mwezi Septemba tarehe 11 mwaka va 2001, ndege tatu za abiria zilipoelekezwa katika majumba mawili ya fahari, yenye urefu wa zaidi ya ghorofa mia moja na kuyatwangilia mbali. Mshtuko na kimako! Kimako kwa kuwa, kabla ya siku hiyo, Wamarekani hawangeweza kudhani kwamba ingewezekana taifa lolote au mtu yeyote kuthubutu kuishambulia nchi yao, taifa wasifa lililojihami barabara dhidi ya aina yoyote lie ya uchokozi kutoka pembe lo lote la dunia.

Hakuna ulimwenguni mzima, aliyeamini kuwa Marekani ingeweza kushambuliwa. Kwa ajili hiyo, mshtuko uliitingisha ardhi yote na huzuni ilitanda kote, kama kwamba sayari nzima imeshambuliwa, wala sio Marekani pekee.

Mintarafu hiyo, Marekani ilipolipiza kisasi kwa kuwaunguza waliokuwemo na wasiokuwemo kwa mabomu hatari huko Afghanistan, idadi kubwa ya watu duniani ilishangilia na kusherehekea. Kwa bahati mbaya, tafsiri ya shambulizi la minara-pacha ya Newyork na lile la Pentagon, uti wa uwezo wa kivita wa Marekani, ilizorota. Kuna wengi waliodhani huo ni mwanzo wa vita vya Waislamu dhidi ya Wakristo na kwa muda, Waislamu wote wakashukiwa kimakosa kuwa ni majambazi wa kimataifa.

MASWALI

(a) Bila kubadilisha maana,fupisha aya tatu za kwanza maneno (65-75) (alama 8; 2 za utiririko)

Matayarisho

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Nakala safi

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(b) Ukizingatia aya tatu za mwisho fafanua fikra za watu n amambo yote yaliyotokea baada ya Septemba 11 2001(Maneno 65-75) Alama 7:alama 1 ya utiririko)

Matayarisho

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Nakala safi

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3. **MATUMIZI YA LUGHA (ALAMA 40)**

(a) Ainisha vielezi katika sentensi ifuatayo:

Mwanamke huyo alibebwa juu juu hadi kanisani. **(al.2)**

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(b) Bainisha jinsi maneno yaliyopigiwa mstari yalivyotumika. **(al.2)**

(i) Kula kwake ni chanzo cha afya yake nzuri.

(ii) "Kula vizuri kama unataka kuwa na afya bora".Daktari alisema.

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(c) Sauti /e/ na /u/ hutamkwa vipi? **(al.2)**

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d) Eleza matumizi matatu ya italiki kisha tolea mifano kwa kila aina. **(al 3)**

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e) Tunga sentensi ukitumia kitenzi kifuatacho katika kauli ya kutendeka - la **(al-2)**

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f). Andika katika usemi wa taarifa **(alama 3)**

"Hicho kijicho cha paka cheupe leo marufuku kwangu" alisema Mzee Kambumbu

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g) Tunga sentensi moja ukitumia kitenzi kimoja kilichoundwa kutokana na nomino **zawadi**

(alama 2)

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h). Tambua matumizi ya kiambishi **ji** katika sentensi ifuatayo **(alama 2)**

Jino la jitu hilo lililiwezesha kujilia chakula kingi kuliko mkimbiaji yule

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i) Tunga sentensi moja kuonyesha maana ya neno: **sembuse**. **(alama 2)**

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j) Andika sentensi moja ukitumia kihisishi cha bezo **(alama 1)**

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K) Ainisha viambishi katika neno **waliibiana** **(alama 2)**

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l) Nini maana ya kiimbo**?** **(alama 1)**

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m)(i) Vokali ni nini**?** **(alama 1)**

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(ii) Eleza sifa mbili za sauti ifuatayo **/i/** **(alama 2)**

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n) Panda ni kuatika mbegu ardhini au kuparaga mti. Andika maana nyingine mbili **(alama 2)**

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o) Andika katika wingi. **(al 2)**

Huzuni aliyokuwa nayo yatima huyu ilinitia kite na imani.

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P) Andika kinyume cha neno lililopigwa mstari. **(al 1)**

Mhalifu huyu <u>alitunga</u> mimba

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p) Bainisha matumizi ya **KI** katika sentensi ifautayo. **(al 1)**

Jua limekuwa likiwaka tangu Januari

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q) Bainisha maana mbalimbali za sentensi ifuatayo: **(al 3)**

Mwalimu amempigia wanafunzi simu

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r) Silabi mwambatano ni nini? **(al 1)**

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s) Tunga sentensi moja udhihirishe maana mbili za neno hili: Rudi **(al 1)**

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t) Pigia mstari vivumishi katika sentensi ifuatayo kisha uandike aina yake. **(al 2)**

Bibi huyu ni mpole uso wake wenye haya huuinamisha kila mara.

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ISIMU JAMII (Alama 10)

a. Eleza nadharia tatu kuhusu chimbuko la Kiswahili. **(alama10)**

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FORM 3 ENDTERM 1 EXAMS

SERIES 1

KISWAHILI

KARATASI YA 2

MUDA: SAA 2½

NAME……. ADM NO; ……..

CLASS…… DATE……..

MAAGIZO:

- *Jibu maswali MATATU pekee*
- *Swali la KWANZA ni la LAZIMA*
- *Maswali mengine yachaguliwe kutoka sehemu zilizobaki*
- *Usijibu maswali mawili kutoka sehemu moja*
- *Kila swali lina alama ishirini*

1.SEHEMU YA D: USHAIRI

Angawa mdogo, dagaa, amekomaa
Kaanga kidogo, dagaa, atakufaa
Kalia kinaya, dagaa, h'ondoa njaa

Wa kwako udogo, kijana, sio balaa
Na sio mzigo, kijana, bado wafaa
Toka kwa mtego, kijana, sinyanyapaa

Nasaha kidogo, kijana, ukubwa jaa
Jikaze kimbogo, kijana, acha kukaa
Chimbua mhogo, kijana, usibung'aa

Na wake udogo, dagaa, ndani hukaa,
Kuliko vigogo, dagaa, hajambaa
Hapati kipigo, dagaa, hauna fazaa

Maisha si mwigo, kijana ushike taa
Sihofu magego, kijana, nawe wafaa

Kazana kidogo, kijana, kugaaga

Maswali

(a) Lipe shairi hili anwani mwafaka **(alama 1)**

(b) Eleza arudhi zilizofuatwa katika kutunga shairi hili **(alama 4)**

(c) Onyesha jinsi malenga alivyotumia uhuru wake **(alama 3)**

(d) Tambua bahari katika shairi hili **(alama 3)**

(e) Andika ubeti wa tatu kwa lugha ya nathari **(alama 4)**

(f) Tambua mbinu za lugha zilizotumika katika shairi **(alama 3)**

(g) Eleza toni la shairi hili **(alama 2)**

FASIHI SIMULIZI

2i) Eleza umuhimu wa Ngano za mtanziko katika jamii **(al.5)**

(ii) Fafanua umuhimu wa maigizo ya watoto **(al.5)**

(iii) Sifa tano za rara **(al.5)**

(iv) Eleza dhima ya misimu kama kipera cha usemi **(al.5)**

3. [a]Maigizo ni nini? **(al.2)**

[b] Fafanua sifa nne za maigizo. **Al.4)**

[c] Eleza vikwazo vya ukuwaji wa fasihi simulizi. **Al.10)**

[d] eleza tofauti kati ya misemo na misimu. **Al.4)**

TAMTHILIA YA BEMBEA YA MAISHA

4. Fafanua jalada la tamthilia **Bembea ya maisha**. **(al 20)**

MAPAMBAZUKO YA MACHWEO

5. Ukombozi wa wanawake unakumbwa na vizingiti vingi sana. Jadili ukweli wa kauli hii ukirejelea hadithi ya sabina.

(alama 20)

FORM 3 ENDTERM 1 EXAMS

SERIES 1

MATHEMATICS

PAPER 1

TIME: 2½ HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

SECTION I (50MARKS): ***Answer all questions in this section***

1 Without using tables or calculators, evaluate. **(3MKS)**

$$\sqrt{\frac{0.38x0.23x2.7}{0.114x0.0575}}$$

2 Without using a calculator or tables, find the value of y given that $y = (a+b)(x - c)^2$ and a = 5 , b =6 ,x = -3 and c = 2. **(3mks)**

3 Solve the following inequalities and represent the solution on a single number line.

$3 - 2x < 5$

$4 - 3x \geq -8$. **(3mks)**

4 Use the reciprocal, square and square-root tables to evaluate to 4 significant figures the expression.

$$\sqrt{\frac{1}{24.56} + 4.346^{2}}$$

5 A Kenyan bank buys and sells foreign currencies at the exchange rates shown below.

	BUYING (KSHS)	**SELLING (KSHS)**
1Euro	147.56	148.00
1U.S Dollar	74.22	74.50

An American arrived in Kenya with 20,000 Euros. He converted all the Euros into Kenyan Shillings at the bank. He spent Kshs.2,510,200 while in Kenya and converted the remaining Kenya shillings into U.S Dollars at the bank. Find the amount in dollars that he received. **(3mks)**

6 **A** train whose length is 60 metres is travelling at 40km/h in the same direction as a bus whose length is 20m.If the speed of bus is 80km/h and moving parallel to the train, calculate the time it takes the truck to overtake the train completely in seconds. **(3mks)**

7 Translation Q is represented by the column vector $\binom{6}{3}$ and another translation R by the column vector$\binom{-4}{2}$. A point S is mapped onto a point T by Q and a point T is mapped onto a point U by R.If point U is (8 , - 4) ,determine the co-ordinates of point S. **(3mks)**

8 Solve for t in the equation
$9^{t+1}+3^{2t}=30$. **(3mks)**

9 Mboya paid Kshs.160 for a blouse after getting a discount of 20%.The vendor made a profit of 30% on the sale of this blouse. What percentage profit would the vendor have made if no discount was allowed? **(3mks)**

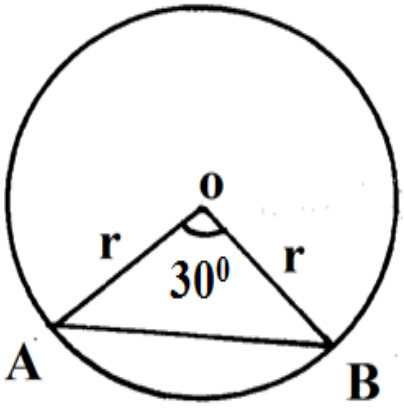
10. The base of a triangle is 3cm longer than its height. Given that the area of the triangle is $35cm^2$, determine the height of the triangle. **(3mks)**

11. Solve for X in the equation. **(3mks)**

Solve for X in the equation.

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

12The figure below shows a circle centre O. Chord AB subtends 30^0 at the centre. If the area of the minor segment is $5.25cm^2$, find the radius of the circle. **(3mks)**



13 A certain two – digit number is equivalent to five times the sum of the digits. It is found to be 9 less than the number formed when the digits are interchanged. Find the number. **(3mks)**

14 The surface area of two similar bottles are $12cm^2$ and $108cm^2$ respectively. If larger one has a volume of $810cm^3$.Find the volume of the smaller one. **(3mks)**

15. The exterior angle of a regular polygon is equal to one – third of the interior angle. Calculate the number of sides of the polygon and give its name. **(3mks)**

16. Mwathi spends one-third of his salary on food, one – quarter on rent, three – fifth of the remainder on transport and saves the rest. If he spends Kshs.1800 on transport, find how much money he saves. **(3mks)**

SECTION II (50MARKS)

Choose any five questions only

17.A bus left Makindu at 11.45 a.m and traveled towards Mombasa at an average speed of 80km/h. A Nissan Matatu left Makindu at 1.15 p.m on the same day and traveled along the same road at an average speed of 120km/hr. The distance between Makindu and Mombasa is 400km.

a) Determine the time of the day the Nissan overtook the bus. **(5 marks)**

b) Both vehicles continue towards Mombasa at their original speeds. Find how long the Matatu had to wait at Mombasa before the bus arrived. **(5 marks)**

18. A frustum of a cone is such that one of its ends is hemispherical with a radius of 2lcm and the other top end is circular with a radius of 10.5cm .The perpendicular distance between the centres of the circular parts is 20cm. Find;

(a) The slant length of the original cone**.** **(3 mks)**

(b) The slant length of the frustum. **(2mks)**

(c) The surface area of the frustum. **(5 mks)**

19. The angle of elevation of the top of a flagpole from a point A on a level ground is 13^0.The angle of elevation of the top of the flagpole from another point B nearer the pole and 12m from A is 30^0. Find;

a)i) The height of the flagpole **(5mks)**

ii)The distance from point B to the top of the flagpole. **(2mks)**

b) Given that tan $\propto = 0.75$, without using tables or a calculator find Cos $(180 - \propto)$ **(3mks)**

20. The vertices of triangle PQR are P(O,O), Q(6, 0) and R(2, 4)

(a) Draw triangle PQR on the graph paper provided. (lmk)

b). Triangle $P^1Q^1R^1$ is the image of a triangle PQR under an enlargement scale factor, ½ and centre (2, 2). Write down the coordinates of triangle $P^1Q^1R^1$ and plot on the same grid.(3 mks)

c). Draw triangle $P^{11}Q^{11}R^{11}$ the image of triangle $P^1Q^1R^1$ under a positive quarter turn about points (1, 1). (3 mks)

d). Draw a triangle $P^{111}Q^{111}R^{111}$ the image of triangle $P^{11}Q^{11}R^{11}$ under reflection in the line y=l. (3mks)

21 A tailor bought a number of suits at a cost of sh.57,000 from Ken-suit wholesalers. Had he bought the same number of suits from Umoja wholesalers it would have costed him sh.480 less per suit. This would have enabled him to buy 4 extra suits for the same amount of money.

a) Find the number of suits the tailor bought. **(6 marks)**

b) The tailor later sold each suit for sh.720 more than he had paid for it. Determine the percentage profit he made. **(4 marks)**

22.Patients who attended clinic in one week grouped by age as shown in the table below.

X Age (years)	No. of patients
0 - 5	14
5 - 15	41
15 - 25	59
25 - 45	70
45 - 75	15

a)Estimate the mean age. **(4mks)**

b)On the graph provided , draw a histogram to represent the distribution. **(6mks)**

23 Four towns P, R, T and S are such that R is 80km directly to the north of P and T is on a bearing of 290° from P at a distance of 65km. S is on a bearing of 330° from T and a distance of 30 km. Using a scale of 1cm to represent 10km, make an accurate scale drawing to show the relative position of the towns. **(4mks)**

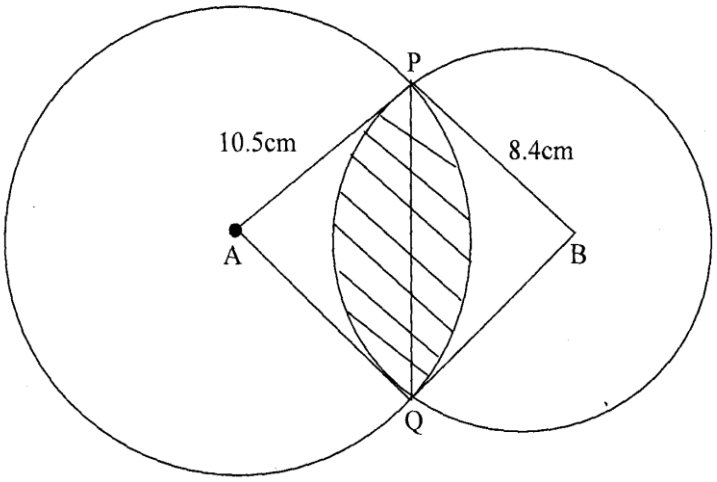
Find:

(a) The distance and the bearing of R from T **(3mks)**

(b) The distance and the bearing of S from R **(2mks)**

(c) The bearing of P from S **(lmk)**

24. The figure below shows two circles of radii 10.5 and 8.4cm and with centres A and B respectively. The common chord PQ 9cm.



(a) Calculate angle PAQ. **(2 mks)**

(b) Calculate angle PBQ. **(2 mks)**

(c) Calculate the area of the shaded part. **(6 mks)**

FORM 3 ENDTERM 1 EXAMS

SERIES 1

MATHEMATICS

PAPER 2

TIME: 2½ HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

SECTION A (50MARKS)

Answer all questions in this section in the spaces provided.

1. Evaluate: $\frac{3}{8}$ of $\left\{ 7\frac{3}{5} - \frac{1}{3}\left(1\frac{1}{4} + 3\frac{1}{3} \right) \times 2\frac{2}{5} \right\}$ **(2mks)**

2. Solve the simultaneous equations

$xy = 4$

$x + y = 5$ **(4mks)**

3. A man invests Ksh.24, 000 in an account which pays 16% interest p.a. the interest is compounded quarterly. Find the amount in the account after 1½ years. **(3mks)**

4. Given that position vectors of points A and B are $\underset{\sim}{a} = \begin{pmatrix} -3 \\ 2 \end{pmatrix}$ and $\underset{\sim}{b} = \begin{pmatrix} 2 \\ 5 \end{pmatrix}$ and C is a point on AB such that AC : CB = 1 : 2. Find the coordinates of the point C. **(3mks)**

5. The table below shows the number of goals scored in 40 soccer matches during a certain season.

No. of goals	0	1	2	3	4	5	6	7
No. of matches	3	9	6	8	5	5	2	1

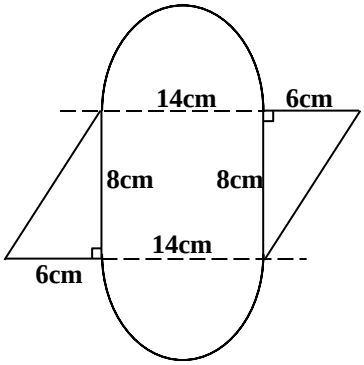
Calculate the mean number of goals scored per match. **(3mks)**

6. Simplify:

$$\frac{\chi^2 - \chi y}{(\chi + y)^2} \div \frac{(\chi - y)^2}{\chi^2 y - y^3}$$ **(3mks)**

7. From a point 20m away on a level ground the angle of elevation to the lower window line is 25° and the angle of elevation to the top line of the window is 34°. Calculate the height of the window. **(3mks)**

8. Find the distance round the figure given below. (Take $\Pi \frac{22}{7}$) **(2mks)**

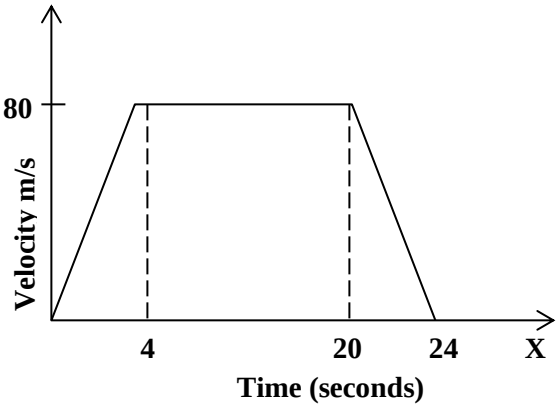


9. Find all the integral values of χ which satisfy the inequalities. **(3mks)**

$\chi + 8 > 4\chi - 6 \geq 3(4 - \chi)$

10. Agnes paid rent which was 1/10 of her net salary. She used ½ of the remaining amount to make a down payment for a plot. She gave her mother Kshs. 2,500 and did shopping worth Kshs. 7,500 for herself. She saved the remainder which was Ksh. 12,500. How much was the down payment that she made. **(4mks)**

11. The figure **below** is a velocity time graph for a car.



(a) Find the total distance traveled by the car. **(2mks)**

(b) Calculate the deceleration of the car. **(2mks)**

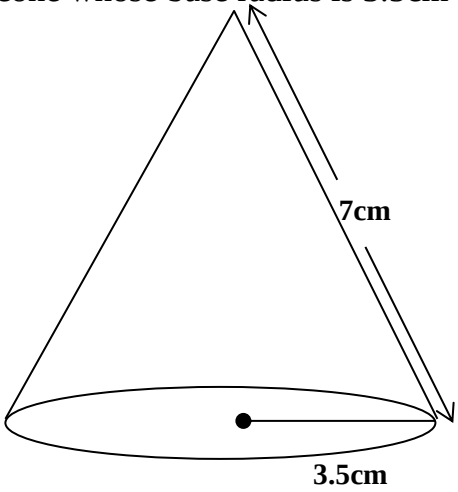
12. A chord **PQ** of length 15cm subtends an angle of 65º at the circumference centre **O**. Find the radius of the circle. **(3mks)**

13. The interior angles of a hexagon are 2x + 5, 4x - 5, 4x + 5, 3x, 4x - 20 and 2x. Find the value of **x**. **(3mks)**

14. A line passes through the point (-1, 2) and has gradient -½. Write down its equation in the form $ax + by = c$ **(3mks)**

15. Given x = 13.4cm and y = 4.3 cm. calculate the percentage error in $\frac{X}{Y}$ correct to 4 d.p **(4mks)**

16. The figure below is a cone whose base radius is 3.5cm and slant height 7cm. The net of the cone is a sector of a circle.



(a) Find the angle subtended at the centre of the sector. **(2mks)**

(b) Draw the net of the solid. **(1mk)**

SECTION II (50 MARKS)

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

17. A straight line L_1 has a gradient $^{-}½$ and passes through point P (-1, 3). Another line L_2 passes through the points Q (1, -3) and R (4, 5). Find.

(a) The equation of L_1. **(2mks)**

(b) The gradient of L_2. **(1mk)**

(c) The equation of L_2. **(2mks)**

(d) The equation of a line passing through a point S (0, 5) and is perpendicular to L_2**. (3mks)**

(e) The equation of a line through R parallel to L_1. **(2mks)**

18.(a) Given that $y = 7 + 3\chi - \chi^2$, complete the table **below**. **(2mks)**

χ	-3	-2	-1	0	1	2	3	4	5	6
y	-11			7						-11

(b) On the grid provided and using a suitable scale draw the graph of $y = 7 + 3\chi - \chi^2$. **(2mks)**

(c) On the same grid draw the straight line and use your graph to solve the equation $\chi^2 - 4\chi - 3 = 0$. **(3mks)**

(d) Determine the coordinates of the turning point of the curve. **(2mks)**

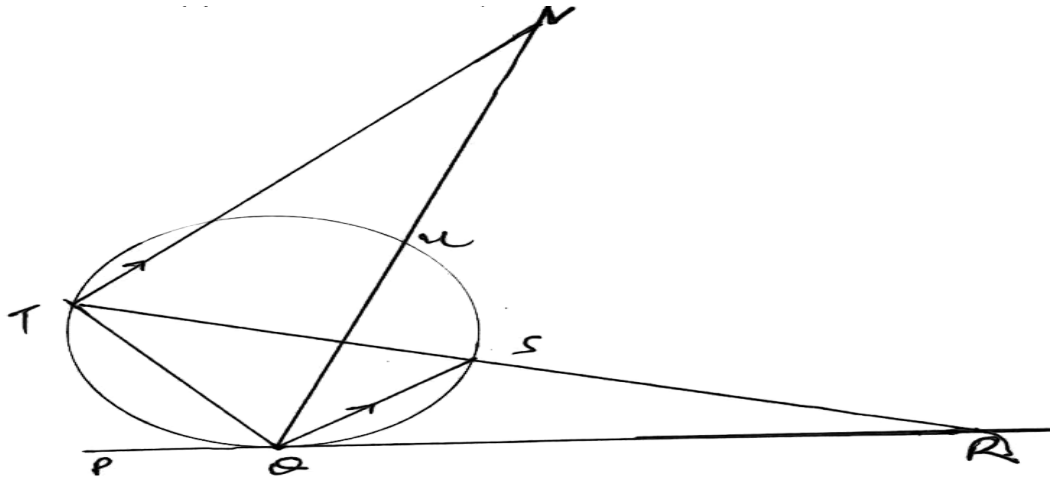
19. From a reservoir, water flows through a cylindrical pipe of diameter 0.2m at a rate of 0.35m per second.

(a) Determine the number of liters of water discharged from reservoir in one hour. **(4mks)**

(b) The water flows from the reservoir for 18 hours per day for 25 days per month and serves a population of 2500 families. Determine the average consumption of water per family per month giving your answer to the nearest 100 litres. **(4mks)**

(c) The water is charged at the rate of sh.4.50 per 100 litres. Calculate the average water bill per family per month. **(2mks)**

20. In the figure below PQR is a tangent to the circle at Q. TS is a diameter and TSR and QUV are straight lines. QS is parallel to TV. Angles SQR = 40^0 and TQV = 55^0.



(a) Find the following angles giving reasons each case.

(i) <QTS **(2mks)**

(ii) <QRS **(2mks)**

(iii) <QVT **(2mks)**

(iv) <QUT **(2mks)**

(b) Given that QR = 8cm, and SR = 4cm. Find the radius of the circle. **(2mks)**

21. Mr. Kimutai a teacher from Tuiyotich Secondary School earns K£ 12000 per annum and lives in a house provided by the employer at a minimum rent of Ksh.2000 per month. He gets a family relief of K£ 1320p.a. and is entitled to a relief of 10% of his insurance of K£ 800p.a.

(a) Calculate his annual tax bill based on the table below. **(6mks)**

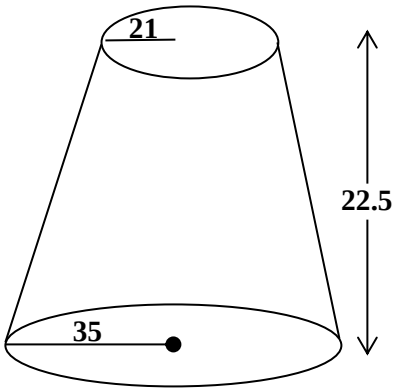
Income slab in K£ p.a.	Rate
1 – 2100	10%
2101 – 4200	15%
4201 – 6300	25%
6301 – 8400	35%
Over 8400	45%

(b) Kimutai other deductions include.

- W.C.P.S = sh 600.00pm
- NHIF = sh 500.00pm

Calculate Kimutai's net salary monthly. **(4mks)**

22. The diagram represents a solid frustum with base radius of 35cm and top radius of 21cm.The frustum is 22.5cm high and is made of a metal whose density is 4g/cm³. *Taking* $\pi = {}^{22}/_{7}$,



Calculate;

(i) The volume of the metal that makes the frustum. **(6mks)**

(ii) The mass of the frustum. **(2mks)**

The frustum is melted in down and recast into a solid cube in the process 20% of the metal is lost. Calculate to 2d.p the length of each side of the cube. **(2mks)**

23. Four points **B, C, Q** and **D** lie on the same plane. Point B is 42km due southwest point **Q**. Point **C** is 50 km on a bearing of S60^{o}E from **Q**. Point **D** is equidistant from **B, Q** and **C**.

(a) Using the scale: 1cm represents 10km, construct a diagram showing the positions of **B, C, Q** and **D.** **(5mks)**

(b) Determine the

(i) Distance between **B** and **C** **(1mk)**

(ii) Bearing of **D** from **B** **(2mks)**

Find the distance and bearing of **D** from **C**. **(2mks)**

24.(a) A small field was surveyed and the measurements recorded in a surveyor's field book as in the table below.

		100	0	**F**
		65	40	**D**
E	30	50		
		30	25	**B**
C	20	20		
A	0	0		

(i) Using a scale of 1cm to 10m make an accurate drawing of the map of the field. **(4mks)**

(ii) Find the area of the field. **(3mks)**

(iii) Assuming that the baseline in (a) runs in a northern direction give the position of **D** relative to A using bearing and distance. **(3mks)**

FORM 3 ENDTERM 1 EXAMS

SERIES 1

PHYSICS

PAPER 1

TIME: 2 HOURS

NAME……. ADM NO; ……..

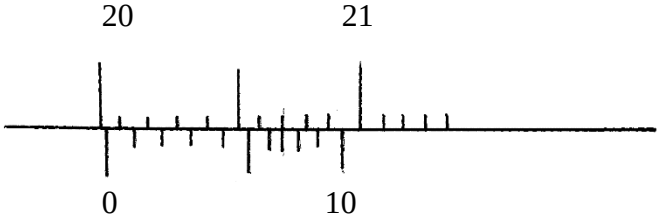
CLASS…… DATE……..

SECTION A

Answer all question

1. The figure below shows a diagram of part of a Vernier caliper that has zero error of -0.02cm.

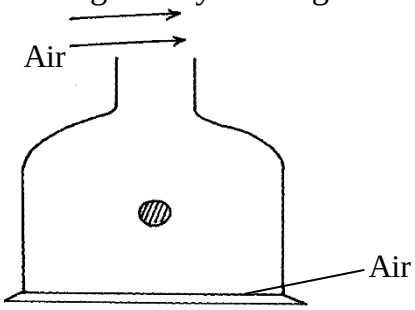
   Determine the length of the object using Vernier caliper **(2mks)**



2. A block measuring 20cm x 10cm x 5cm rests on a flat surface. The block has a weight of 3N.

Determine the maximum pressure it exerts on the surface **(3mks)**

3. The figure below shows a light body floating in a container



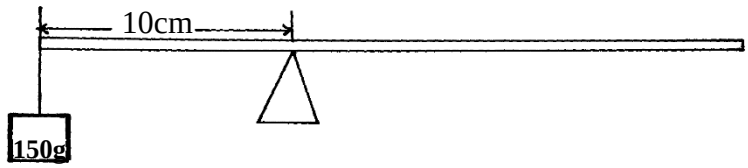
State and explain the observation when a stream of air is blown over the month of the container as shown **(2mks)**

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4. A uniform half-metre rule pivoted at the 10cm mark, balances when a mass of 150g is suspended at the 0cm mark as shown below. Determine the mass of the half-metre role. **(2mks)**



5. A person of mass 60kg stands on a spring weighing machine inside a lift. The lift is accelerated upwards at $3m/s^2$, calculate the reading of the weighing machine **(3mks)**

6. A motorcycle accelerates from 8m/s to 20m/s in 10seconds. What distance does it cover in this time **(3mks)**

7. Explain why a hole in a ship near the bottom is more dangerous than one nearer the surface **(2mks)**

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8. Xcm^3 of substance A which has density of 800kg/m^3 is mixed with 100cm^3 of water with a density of 1000kg/m^3. The density of the mixture is 960kg/m^3. Determine the value of X **(3mks)**

9. Explain in terms of the arrangement of particles the kinetic theory of matter**.** **(3mks).**

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10. A hippo of mass 500kg is able to walk on a muddy river bank while a car of mass 220kg is not able. Explain **(2mks)**

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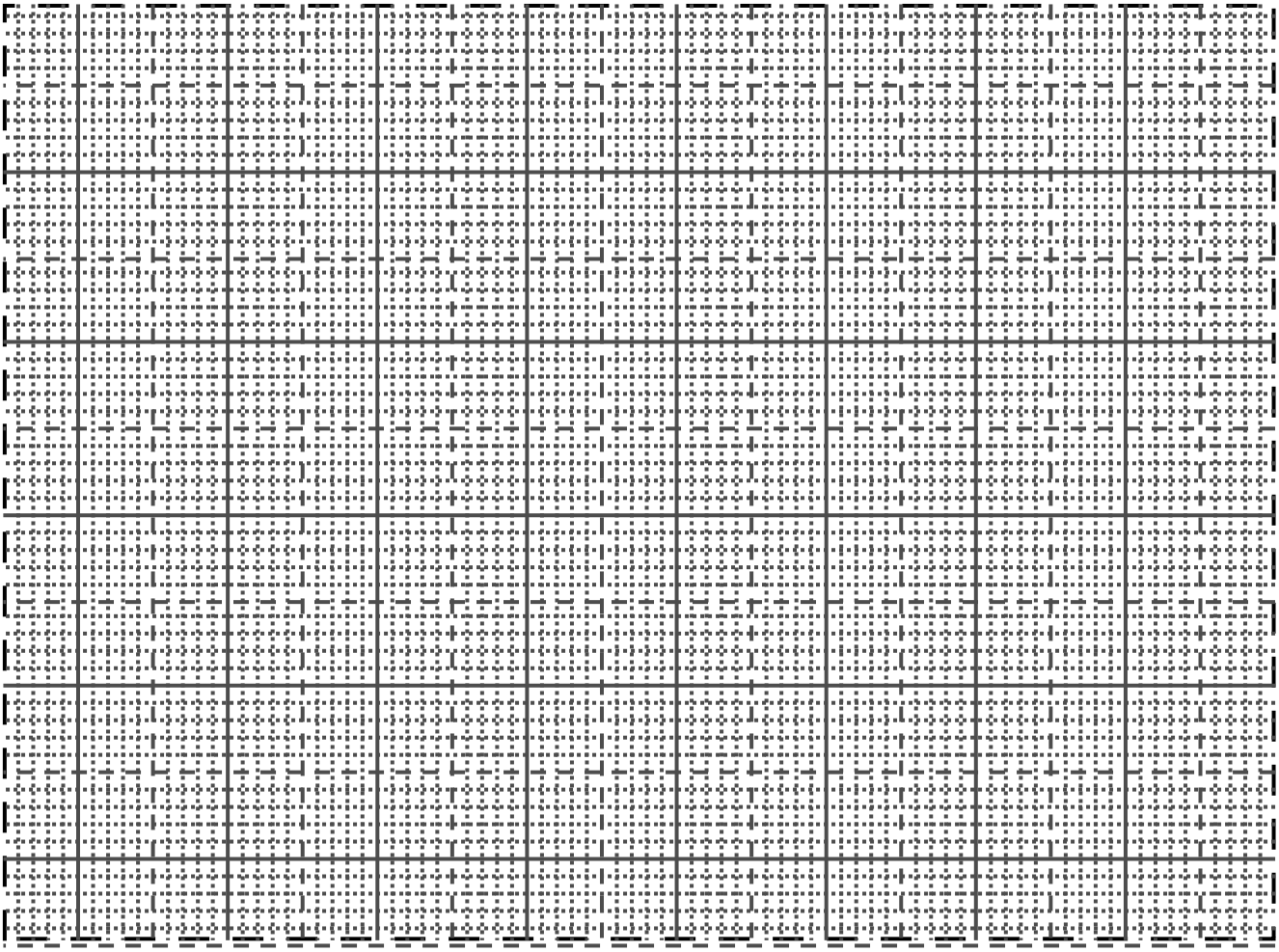
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SECTION B: (55MARKS) ANSWER ALL QUESTIONS

11. (a) The table below shows values of pressure P in fresh water at different depth

Pressure P(Kpg)	110	140	180	200	220
Depth h(cm	1.0	4.0	8.0	10.0	12.0

(i) On the gird provided, plot a graph of pressure against depths. **(5mks)**



(ii) Given that the equation $P=P_o$ +pgh, determine from the graph (I) the value of P_o **(1mk)**

(iii) The density of fresh water **(4mks)**

(b) The mass of density bottle is 20.0g when empty. 70g when full of water and 55g when full of a second liquid. Calculate the density of the liquid (take density of water to be $1000kgm^{-3}$)

(4mks)

12. a) Explain why it is easier to ride a bicycle round a bend on a road if the surface is dry than when it is wet **(2mks)**

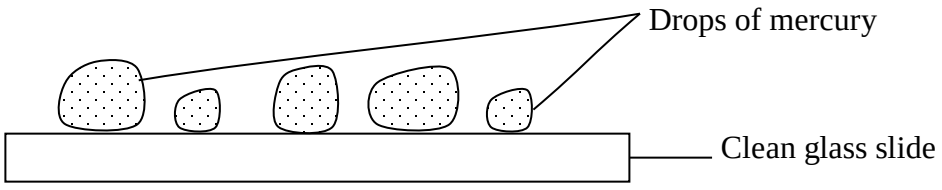
. b) Give **one** difference between limiting and dynamic forces of friction **(2mks)**

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c.) Mercury on a clean glass slide collects into small spherical balls as shown in figure below. Explain why **(2mks)**



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d.) State Pascal's principle of transmission of pressure **(2mks)**

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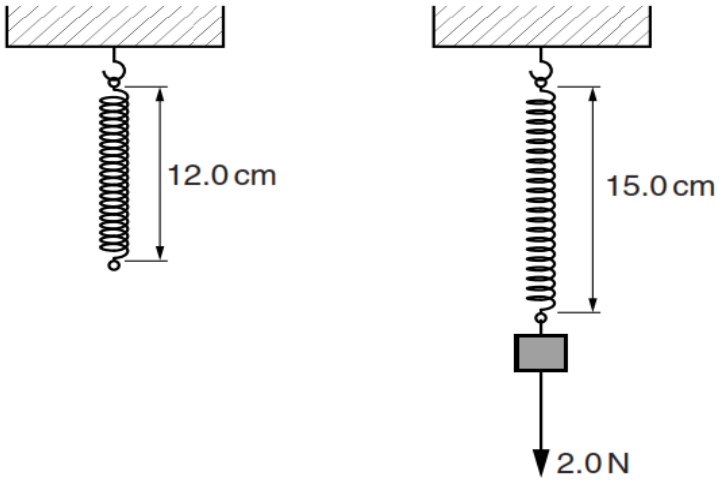
e.).A helical spring extends by 1 cm when a force of 1.5N is applied to it. Find the spring constant. **(2mks)**

17(a) State Hooke's **law** **(1mark)**

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(b) A student hangs a spring vertically from a hook, as shown in Figure below.



With no load, the spring is 12.0 cm long. With a load of 2.0 N on the end of the spring, its length is 15.0 cm. Calculate the extension of the spring**.** **(2 marks)**

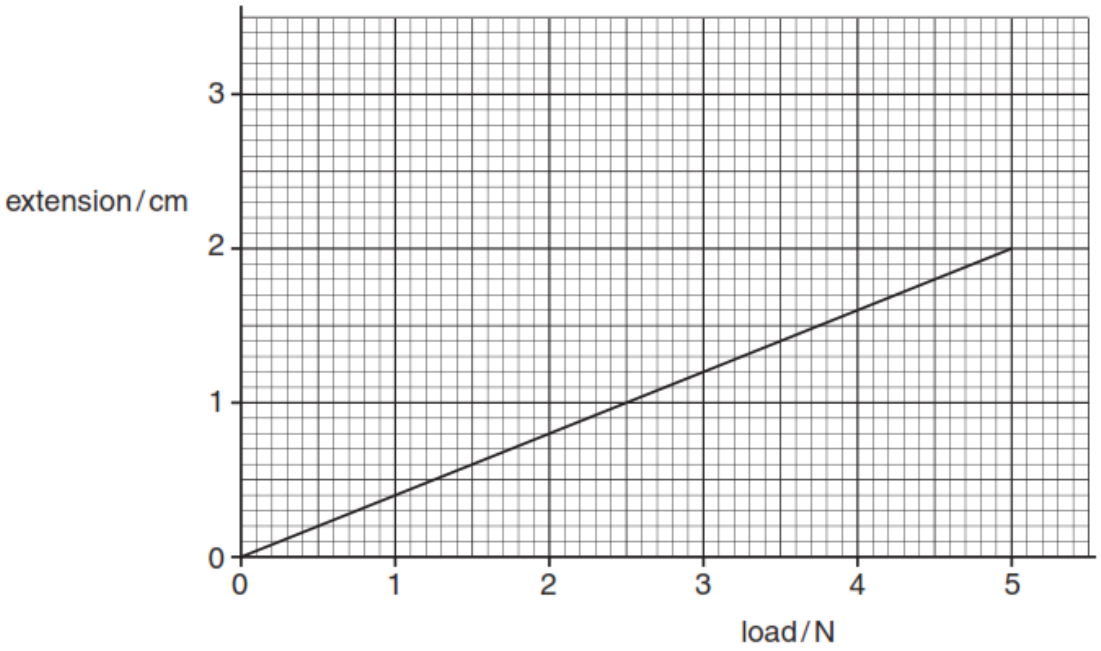
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(c) When the graph of extension against load is drawn for the spring, the result is the line shown below.



The unstretched length of the spring is 9.0 cm.

(i) Calculate the total length of the spring when a 5.0 N load is hanging from the spring. **(2 marks)**

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(ii) Calculate the energy stored in the spring when it stretches through 2cm **(2 marks)**

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(iii) Calculate the spring constant from the graph **(3 marks)**

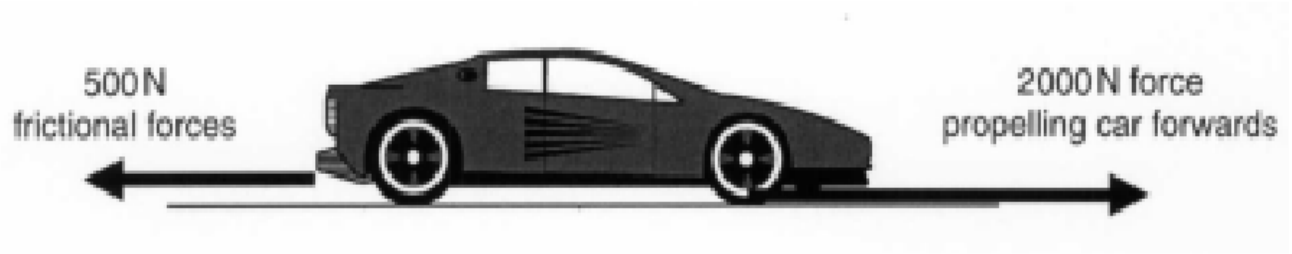
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18 (a)The car of mass 500kg is travelling on a level road as shown below.



(i) Calculate the magnitude of the resultant force on the car. **(2mks)**

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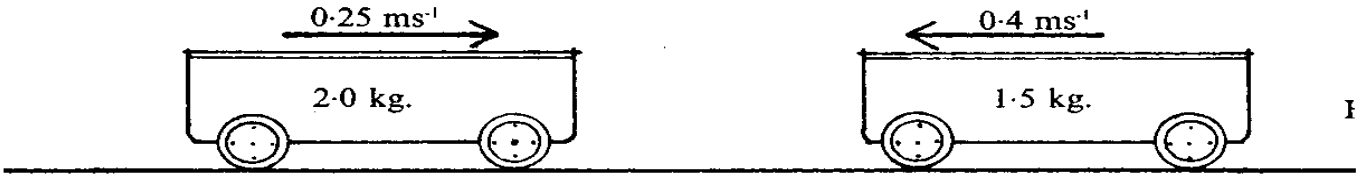
(ii) Calculate the acceleration of the car. **(2 marks)**

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(b) The figure shows two trolleys of masses 2.0kg and 1.5kg traveling towards each other at 0.25m/s and 0.4m/s.The trolleys combine on collision



(i) Calculate the velocity of the combined trolleys. **(4 marks)**

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(ii) In what direction do the trolleys move after collision **(1mark)**

19. **(a)** What is diffusion? **(1 mark)**

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(b) A smoke cell contains a mixture of trapped air and smoke. The cell is brightly lit and viewed through a microscope. State and explain what is observed. **(3 marks)**

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(c) A beaker is filled completely with water. A spoon full of common salt is added slowly. The salt dissolves and the water does not overflow.

(i) Why is salt added slowly? **(2 mark)**

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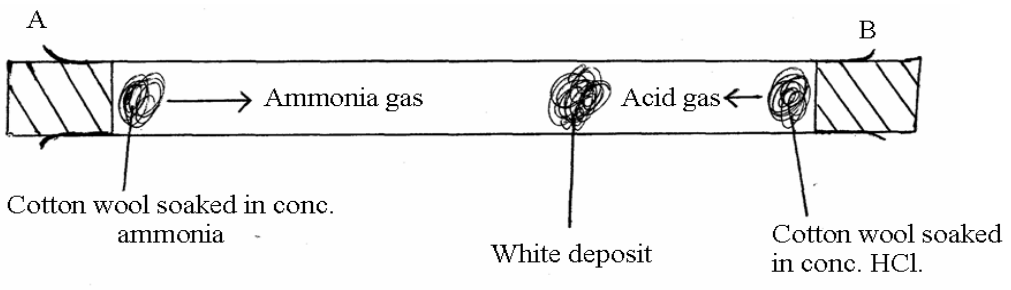
(ii) Why doesn't the water overflow? **(2 mark)**

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(d) In the figure below, ammonia gas and an acid gas diffuse and react to form a white deposit on the walls of a long glass tube as shown.



(i) What conclusion can be made from the result of this experiment? **(2mark)**

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(ii) How does the size and mass of a gas affect its rate of diffusion? **(2 marks)**

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(iii) The experiment is performed at a lower temperature. Explain how the time taken to form the white deposit would be affected. **(2 marks)**

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FORM 3 ENDTERM 1 EXAMS

SERIES 1

PHYSICS

PAPER 2

TIME: 2 HOURS

NAME……. ADM NO; ……..

CLASS…… DATE……..

SECTION A: (25 MARKS)

Answer ALL questions this section in the spaces provided.

1. State the laws of refraction **(3 mks)**

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2. a) Define local action **(1mk)**

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b) A charge of 4.8C flows through a lamp every second. Calculate the number of electrons involved per second. **(3mks)**

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c) Give two differences between a primary and a secondary cell **(4mks)**

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3. The figure below shows two mirrors M_1 and M_2 placed at angle of 80°. A ray of light incident to the mirror makes an angle of 45° with mirror M_1. Find the angle the ray turns after reflection in the two mirrors. **(3mks)**

4. A hockey player trains on a nylon fiber surface. As he runs around, his shoes rub against the surface and he becomes positively charged.

(i) Explain in terms of particles involved, how he becomes positively charged. **(1mk)**

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(ii) State what happens to the nylon-fiber surface as it becomes positively charged. **(1mk)**

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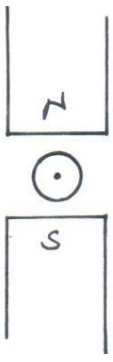
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5. State two defects of a simple cell. **(2mks)**

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6. The diagram in figure 3 below shows a current carrying conductor placed in a magnetic field.



(i) Sketch the resulting magnetic field pattern. **(1mk)**

(ii) On the diagram show direction of force.

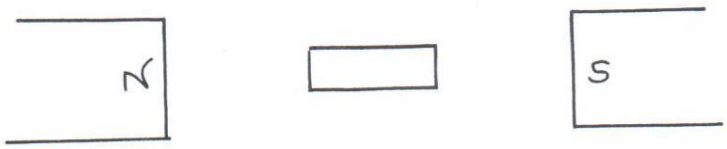
7. What is dispersion of light? **(1mk)**

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8. The figure below show a cubic rubber placed between two poles of a magnet. **(1mk)**



Complete the diagram to show the magnetic field pattern between the poles of the magnet. **(1mk)**

9. The diagram in figure **7 below** shows one method of making a magnet.

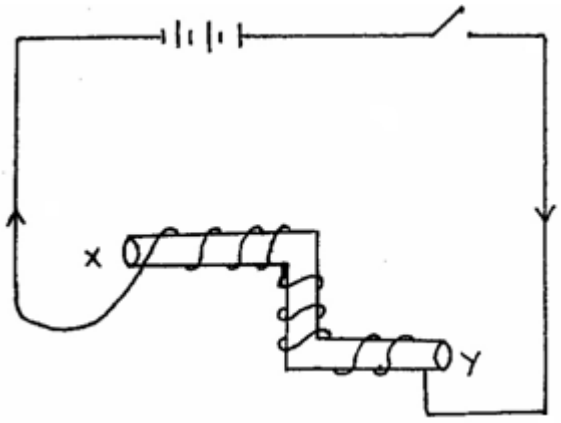


Fig.7

What polarity is at **X** and **Y** when the switch is closed.

X = _____ **(1 mark)**

Y = _____ **(1 mark)**

SECTION 11 (55 MKS)

1yf3. A parent comes to you seeking your advice whether to use a white shawl or a black one to wrap her child to kept it warm. Which shawl would you advice to use and why? **(2 marks)**

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……

……

Complete the figure **10 below** to show the position of the image of object A in the mirror M. (2 marks)

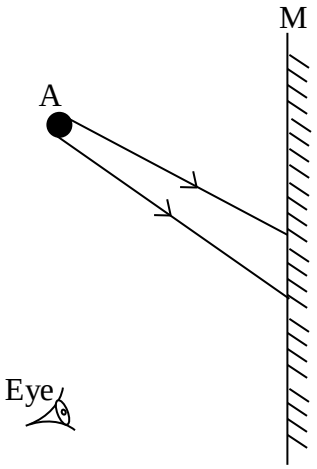


Fig.10

15. Figure **11** shows a fire alarm circuit.

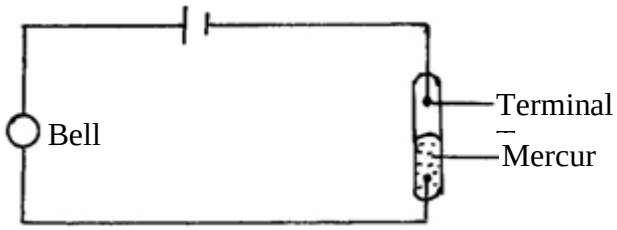


Fig.11

Explain how the fire alarm functions. **(3 marks)**

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16. A highly negatively charged rod is gradually brought close to the cap of a positively charged electroscope. It is observed that the leaf collapses initially and then diverges. Explain the observation. **(3 marks)**

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17. In figure 12 the arrow indicates the direction of the current in the conductor. Sketch on the diagram the magnetic field pattern due to the current. **(1 marks)**

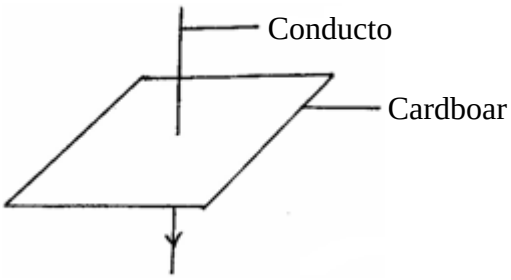


Fig.12

(i) In estimating the height of a tree, the following measurements were recorded:

Height of the rod = 180cm.

Length of the shadow of the rod = 116cm

Length of the shadow of the tree = 420cm

Calculate the height of the tree. **(3 marks)**

(ii) State **three** methods of making magnets. **(3 marks)**

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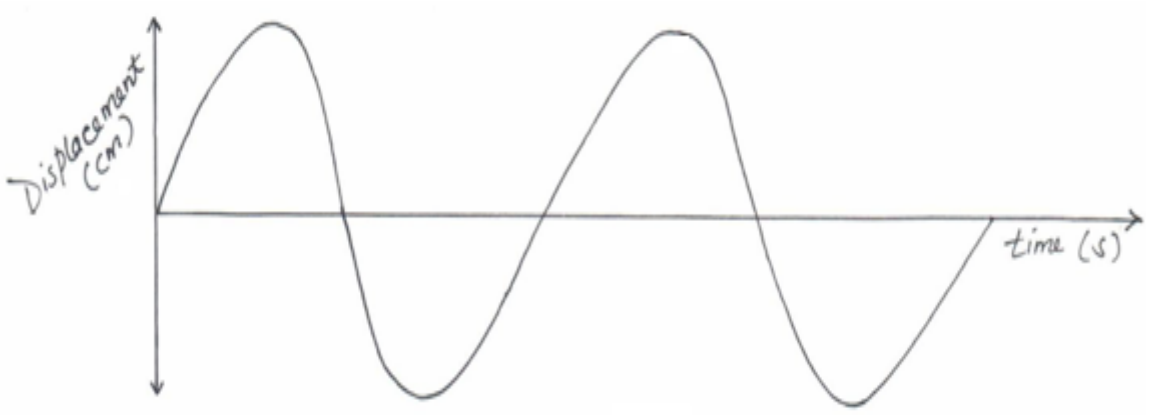
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18. (a) Define an echo. **(1mk)**

……

……

(b) The figure below shows the displacement time graph of a wave.



Sketch on the same axes a wave of twice the frequency and half the amplitude of the above waveform. **(2mks)**

(c) A hunter standing between two parallel cliffs hears a lion roar some distance away from him with the same valley. He observes the first echo after 1.5 seconds followed by the second echo after 2.8 seconds. If the hunter stands at equidistance from the first cliff, determine how far the lion is from the hunter. (Take speed of sound in air to be 332m/s). **(3mks)**

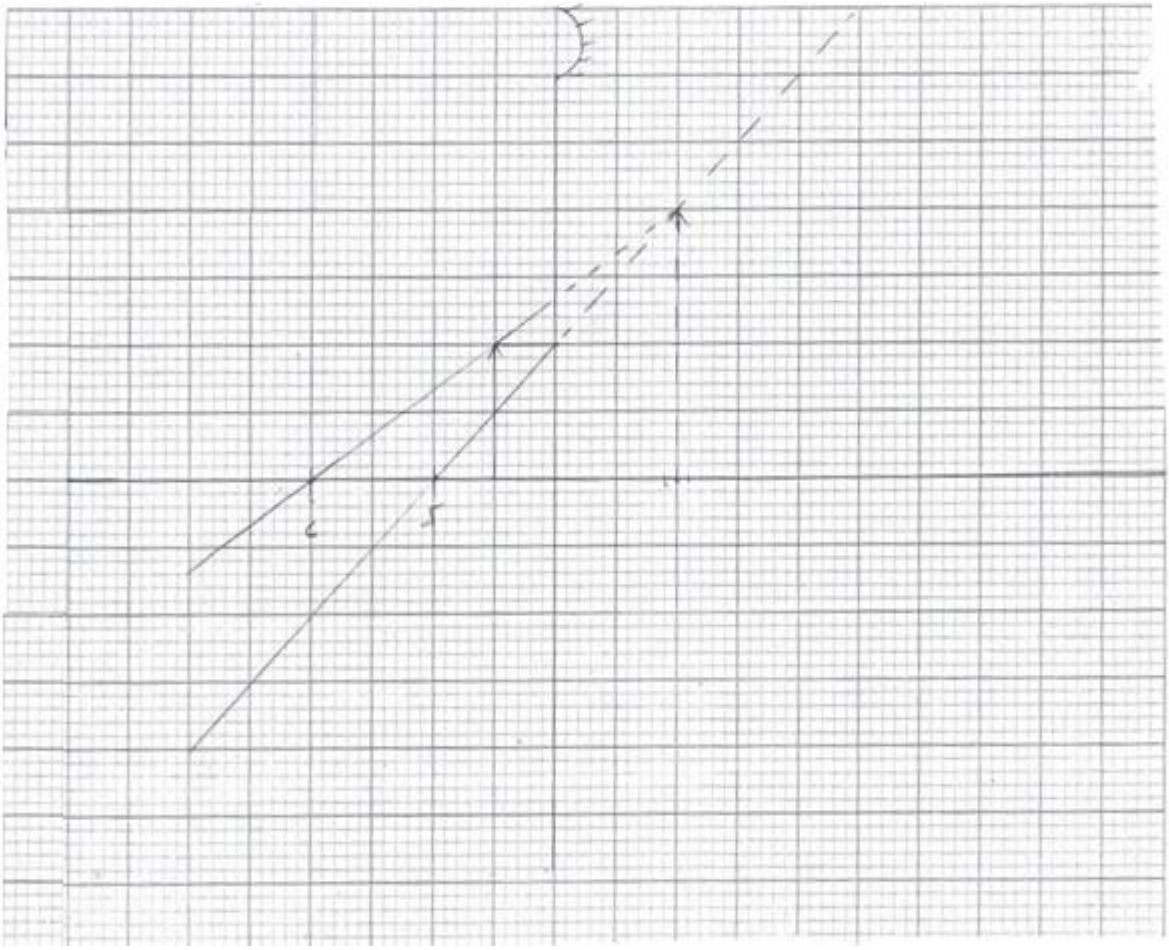
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18. The figure below shows an object placed in front of a concave mirror of focal length 10cm. C is the centre of curvature.



(a) On the same figure draw a ray diagram showing the location of the image. (3mks)

Use the ray diagram drawn in (a) above to determine the **(1mk)**

(i) image distance.

……

……

(ii) magnification. **(3mk)**

……

……

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……

(b) A vertical object is placed 20cm in front of a concave lens of focal length 5cm. Determine

(i) the image distance. **(3mks)**

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(ii) the magnification **(2mks)**

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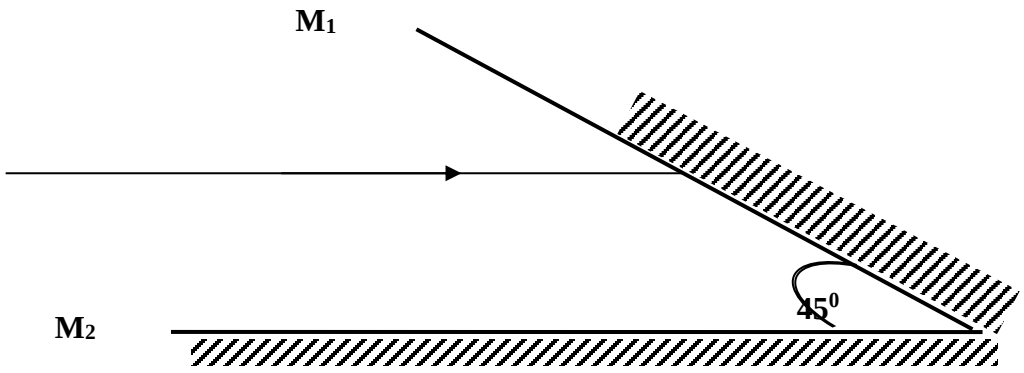
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21. a) State the laws of reflection **(2mks)**

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……

b.) Two plane mirrors $\mathbf{M_1}$ and $\mathbf{M_2}$ and inclined toe ach other and a ray of light shone on $\mathbf{M_1}$ as shown:



Show on the diagram the path followed by the ray until it is reflected by $\mathbf{M_2}$ **(2mks)**

c.) Define the following terms as used in refraction **(4mks)**

i. Absolute refractive index

……

……

ii. Total internal reflection

……

……

iii. Critical angle

……

……

iv. Refraction

……

……

d.) i. Given that bthe refractive index of diamond is 2.42 and the velocity iof light in air 3.0 X 10^8 m/s,calculate the velocity of light in diamond. **(3mks)**

ii. A glass block of thickness 12 cm is placed on a mark placed on a plain paper. The mark is viewed normally through the glass. Calculate the apparent depth of the mark and hence the vertical displacement. (refractive index of glass is 1.5) **(3mks.)**

iii.State Snell's law of refraction. **(2mks)**

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1. a) Define magnification **(1mk)**

……

……

b) State two differences between a concave and a convex reflectors **(2mks)**

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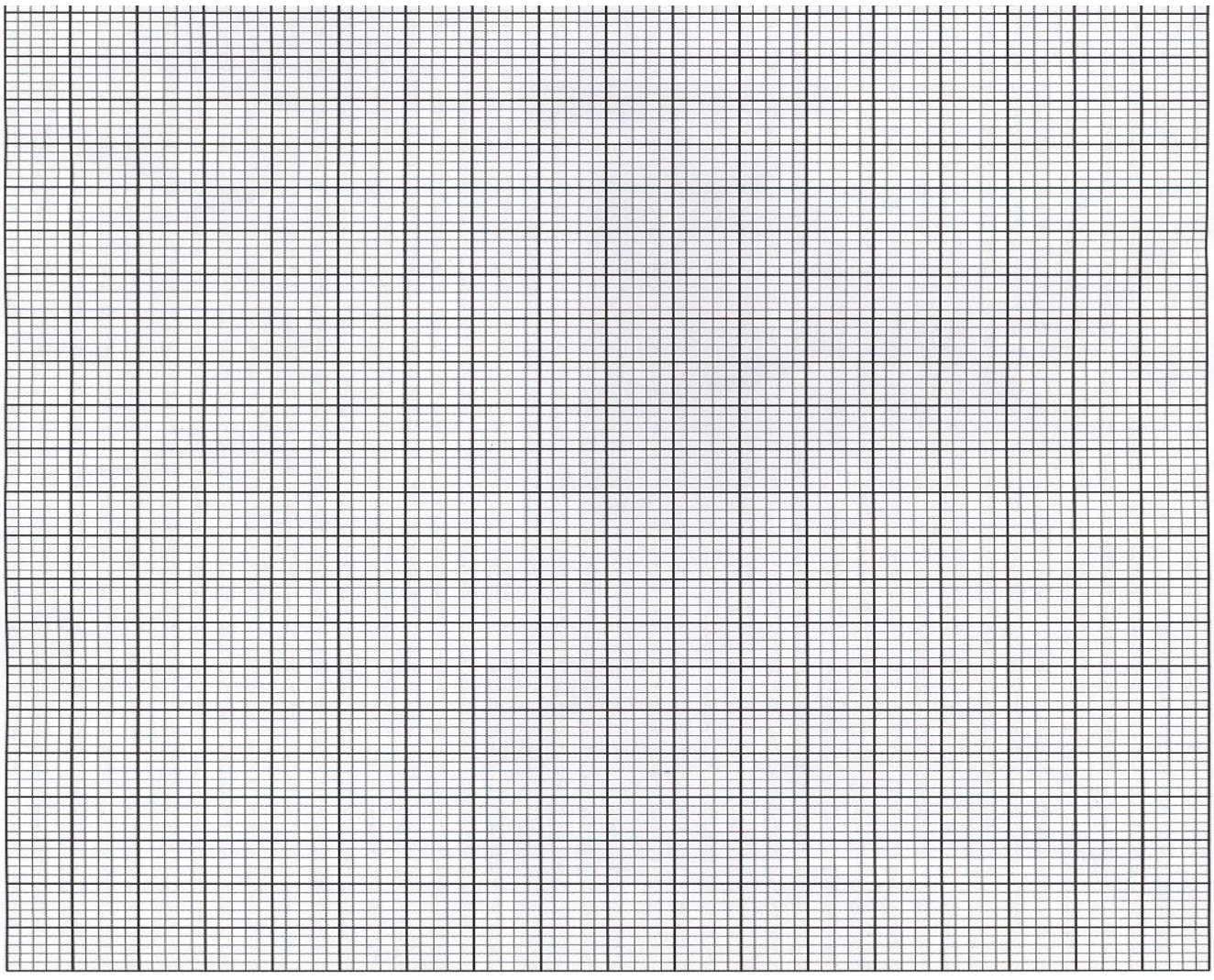
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c) a concave mirror of focal length 20 cm forms a real image three times the size of the object. If the object height is 4cm; determine, using graphical method, the:

(i)object distance **(3mks)**

(ii) The image distance **(1mk)**



FORM 3 ENDTERM 1 EXAMS

SERIES 1

PHYSICS

PAPER 3

CONFIDENTIAL PHYSICS PRACTICAL

QUESTION 1

- *Two new dry cells and a cell holder*
- *A voltmeter (0-3 Volts)or (0-5 Volts)*
- *An ammeter (0-1 A)*
- *5 Connecting wires (atleast 2 with crocodile clips)*
- *1m longnichrome wire mounted on a millimiter scale(SWG 32)*
- *A switch*

QUESTION 2

- *A cotton thread 1m long*
- *Two small pieces of wood*
- *A retort stand and clamp*
- *A metre rule*
- *A stop watch*
- *Some cello tape*
- *Pendulum bob*

FORM 3 ENDTERM 1 EXAMS

SERIES 1

PHYSICS

PAPER 3

TIME: 2½ HOURS

NAME……. ADM NO; …….

CLASS…… DATE…….

INSTRUCTIONS TO CANDIDATES

- *Write your name and Index Number in the spaces provided above.*
- *Sign and write date of examination in the spaces provided above.*
- *Answer all questions in the spaces provided*
- *All working must be clearly shown*
- *Non-programmable silent calculator may be used*

FOR EXAMINERS USE ONLY

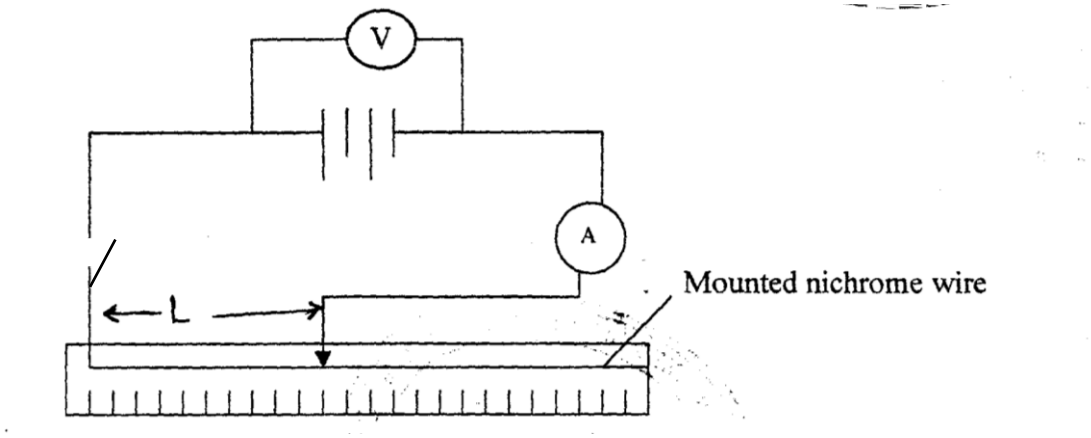
Question	Maximum	Candidates Score
1	20mks	
2	16mks	
ii)	4mks	
Total		

1.You are provided with the following apparatus

- *Two new dry cells and a cell holder*
- *A voltmeter (0-3v) or (0-5v)*
- *A ammeter(0-1A)*
- *5 connecting wires – at least two with crocodile clips*
- *1m length nichrome wire mounted on a mm scale (SWG 32)*
- *A micrometer screw gauge*
- *A switch*

In this experiment you are required to determine the resistivity of the wire

Connect the apparatus as shown in the diagram below



ii) Slide the wire mounted on the meter rule to give a set of readings for values of I and V respectively for length L ranging from 10cm to 70cm .Record the results in the table below (6 marks)

LEGTH L(cm)	LEGTH L(m)	Current I(A)	Voltage (V)	R=V/I
0.1				
0.2				
0.3				
0.4				
0.5				
0.6				
0.7				

iii)from the table what relationship is there between length of the wire and **R.** **(1mk)**

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……

iv)use the micrometer screw gauge provided to measure the diameter of the wire

d=……mm d = ……m (1 mk)

Hence find the cross sectional area A of the wire mounted on the ruler that you use**d.(2mks)**

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v)Using the results from your table to plot a graph of R against L. **(4mks)**

vi)From the graph find the value of I when L=0.2 m and V =1.8V. (**2MKS)**

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(VII) Calculate the slope of the graph **(2mks)**

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(viii) Hence calculate the resistivity of the wire given that $\mathbf{R=\frac{pL}{A}}$ **(2mks)**

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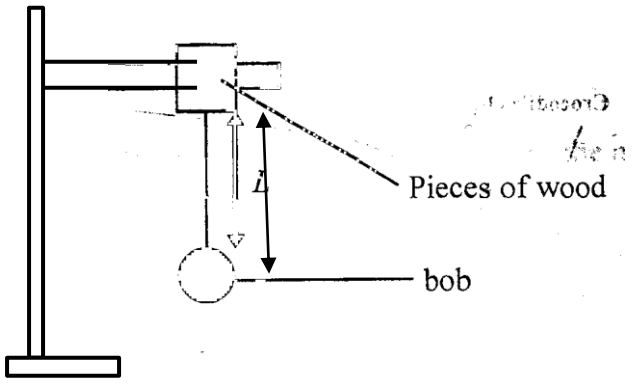
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QUESTION 2

2. You are provided with the following apparatus
- A pendulum bob
- A cotton thread 1m long
- Two small pieces of wood
- A retort stand and clamp
- A metre rule
- A stop watch
- Some cello tape

Proceed as follows

(a) Clamp the pendulum as shown starting with L= 80cm



You are required to determine the constant 'b' using a simple pendulum

(a) Give the bob a small displacement 0 and record the time't' for 20 oscillations. .Record also the periodic time T, for one complete oscillation

(b) Repeat (b) for values of L as shown in the table. Enter your readings in the table. Work out also T^2 and enter these values in the table.

Length L(cm)	Time for 20 oscillations	Period T	$T^2(s^2)$
80			
70			
60			
50			
40			
30			
20			

(9 mks)

(c) Plot a graph of T^2 against L. **(5 mks)**

(d) Determine the slope of the graph and state its units. **(3 mks)**

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(e) The equation for the graph is given by

$$T^2 = \frac{4\pi^2 L}{b} + C$$

Where b and C are constants. Determine the value of b stating its significance. **(3 mks)**

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