FORM THREE MID TERM ONE SERIES TWO EXAMS *(11 SUBJECTS TESTED)*



FORM 3 MID TERM 1 SERIES 2 EXAMS

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NAME……

ADM NO…… SCH……..

AGRICULTURE

TIME:2 HOURS

FORM 3 MID-TERM 1 SERIES 2 EXAMS

INSTRUCTIONS TO CANDIDATES.

- *Write your name and admission number in the spaces provided.*
- *Answer all questions in the spaces provided.*
- *This question paper consists of three sections A, B and C.*
- *Answer all the questions in sections A,B and C.*
- *Answers should be written in the spaces provided.*

For Examiner's use only

Candidates should check the question paper to ascertain that all the pages are printed as indicate and no questions are missing.

SECTION A(30MKS)

1. Give four reasons why Agriculture is a art? 2mks

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2. State two branches of livestock farming. 1mk

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3. State four human factors which influence agricultural production. 2mks

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4. Give two aspects if light which affect agricultural production. 2mks

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5. Give any two light breeds of poultry 1mk

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6. State four importance of primary cultivation. 2mks

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7. (a)Give two sources of underground waters. 2mks

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(b)State two conditions under which irrigation is necessary. 1mk

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8. (a) State three characteristics of crops used for green manure. 1½mks

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(b) Give three reasons as to why green manure is not commonly used. 1½mks

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9. State the three basic concepts of economics . $1\frac{1}{2}$mk

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10. **Give three function of vitamins in animals body** $1\frac{1}{2}$mks

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11. Differentiate between micro and macro nutrients.2mks…

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12. State two ways under which fertilizer are classified. 1mk

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13.State four advantages of using seeds as a planting materials. 4x½=2mks

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14.Give four methods of breaking seed dormancy 2mks

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15.State four advantages of raising seedlings in a nursery. 2mks

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16.Define the following terms as used in crop production. 2mks

Gapping

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Rogueing

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Staking

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Thinning

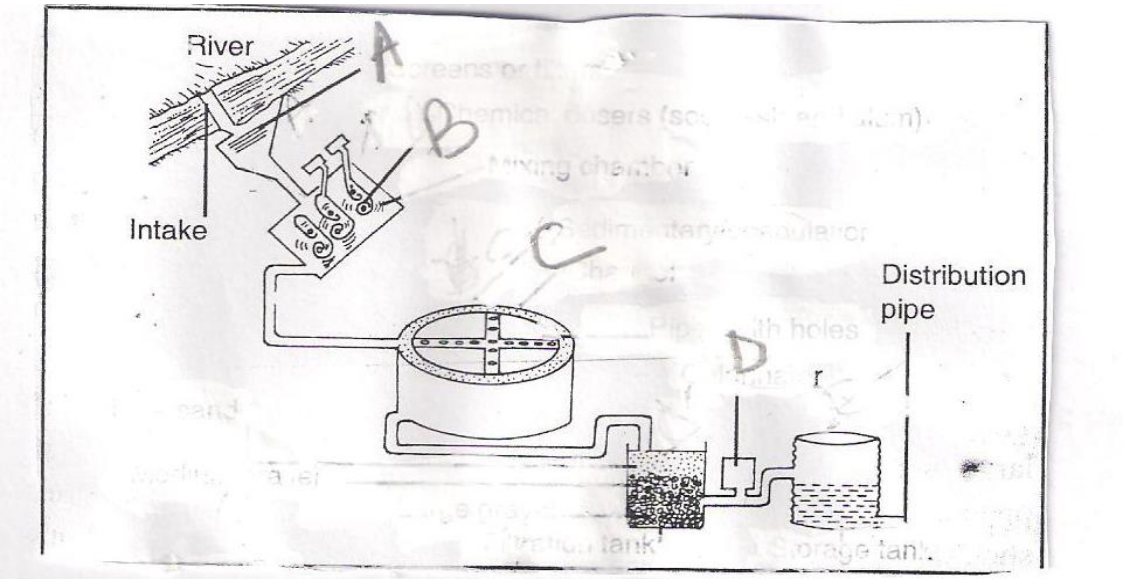
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SECTION B(2OMKS)

17. The diagram below shows a chemical treatment of water .study the diagram and answer the questions that follow.



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a. Name the stages labeled A,B ,C and D. 2mks

A……

B……

C……..

D……

b. Name the chemical which are added in B. 1mks

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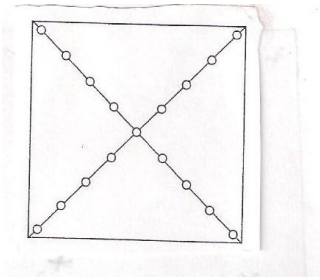
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c. Give a reason as to why chemical added in C use in water treatment. 1mk

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18. The diagram below shows a method of soil sampling



a. Name the method of soil sampling shown above. 1mk

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b. Besides the method shown above in the diagram, name the other method one can use to perform soil sampling. 1mk

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c. State the information that should be provided on the soil sampling package before it is taken to the laboratory. 3mks

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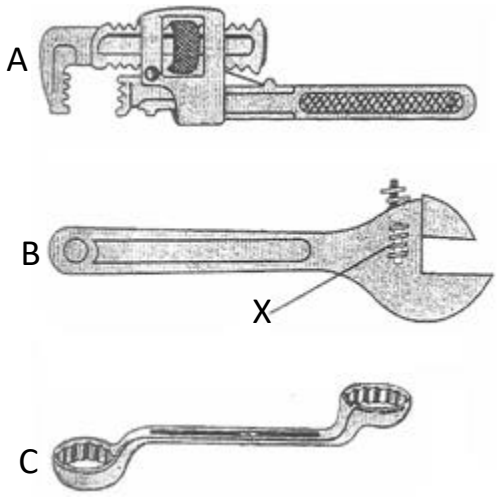
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19..The diagram below show some workshop tools. Study the diagrams and answer the questions that follow.



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(a) Identify tools labelled. (3 marks)

A ……

B ……

C ……

(b) State the function of the tool labelled **A**. (1 mark)

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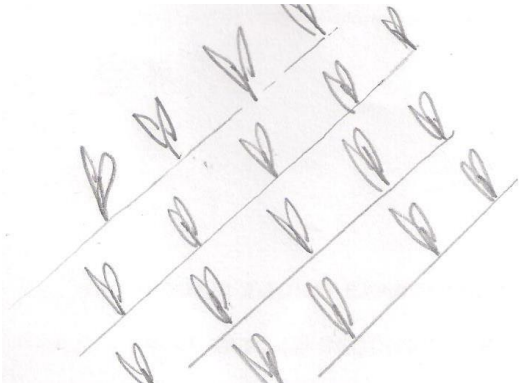
(c) State the function of part **X** in the tool labelled B 1mks

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20. Below is a diagram showing a method of planting.



a. Identify the method of planting shown above. 1mk

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b. State four advantages of using the method above. 2mks

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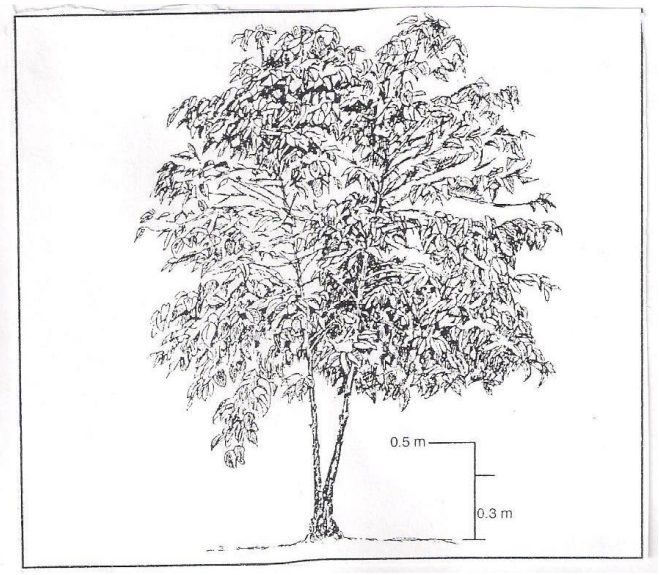
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21. The diagram below illustrate a method of pruning coffee .Study it carefully and answer the questions that follow.



a. Identify the method above. ½mk

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b. Apart from the method named above, name the other method of pruning coffee.½mk

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c. State two disadvantages of using the above method. 2mks

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SECTION C (40 MKS)

ANSWER TWO QUESTIONS ONLY.

22.A) State the effect of wind in agricultural production.8mks

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b) Outline the procedures of handling a heifer when administering a liquid deworming drug to control tapeworm (5mks

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c)Outline the reasons why ridging is done in crop production. 4mks

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d)Discuss 3 sources of water in an animals body 3mks

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23.(a)Explain various practices which are carried out in a nursery. 10mks

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b) Describe the factors influencing the quality of farm yard manure. 5mks

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c) Explain the importance of using the following materials when making a compost manure. 5mks

i. Wood ash

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ii.Top soil

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iii.Well rotten manure

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iv. maize straws

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v.Tester

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24.A) **Describe Four predisposing factors of livestock diseases 4 mks**.

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b) outline the advantages of pruning in crop production. 4mks

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c) **Outline Four importance of keeping livestock health 2mks**

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NAME……

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BIOLOGY

MID-TERM 1 SERIES 2 EXAMS

FORM 3 TERM 1

TIME: 2HRS

INSTRUCTIONS

I. Write your name and admission number in the space provded.

2. Answer all the questions in the space provided

For examiner use only		
Question No.	Total score	Student score
1-28	**100**	

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1(a) What is Biology? (1mk)

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(b) State and define any two main branches of biology. (2mks)

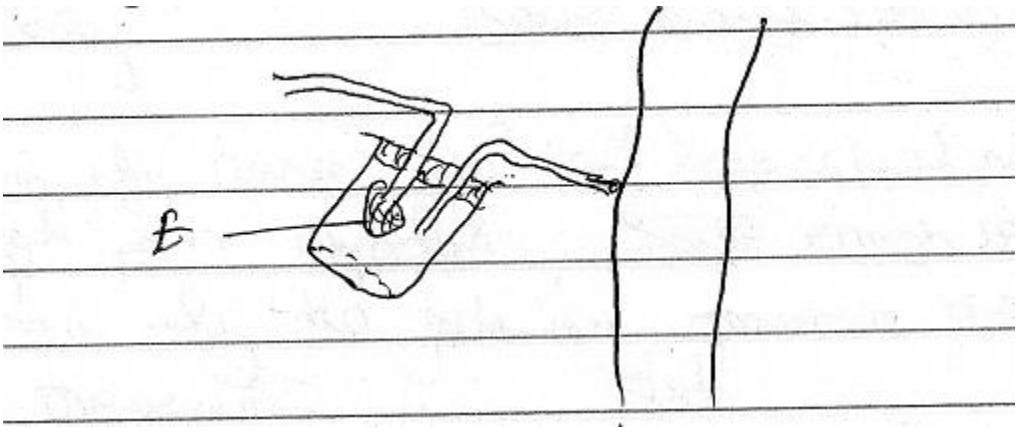
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2 Below is an illustration of a piece of apparatus strategically positioned to trap some organism



(a) Name the apparatus. (1mk)

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

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3. State the name given to the study of (2mks)

(a) Micro-organism

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(b) Living things and their surrounding

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4 State the organelles that (2mks)

(i) provide site for protein synthesis

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(ii) involved in cell division through formation of spindle fibre

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5(a) Give two precautions that should be observed when placing a microscope on a bench. (2mks)

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(b) To estimate the size of a cell A student observed 20 cells across a diameter of field of view of 5mm in diameter Calculate the cell diameter . Show your working. (2mks)

(c) Explain why course adjustment knob should not be used to lower the high power objective. (1mk)

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6(a) Explain why the following processes are important during the preparation of a slide. (2mks)

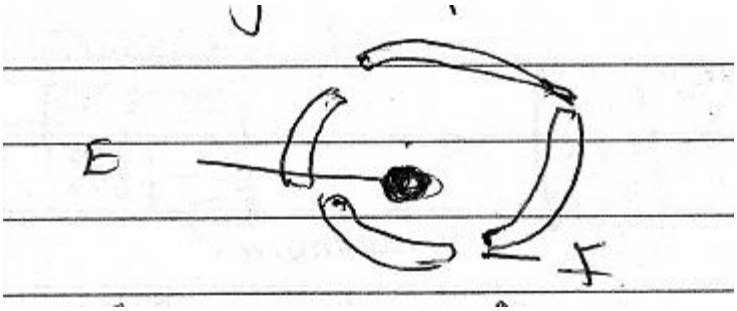
(i) making a very thin section

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(ii) placing a cover slip over the section

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(b) The diagram represents a nucleus



(i) State the function of part labeled E (1mk)

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(ii) Name part labeled F. (1mk)

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7. List two differences between plant and animals. (2mks)

Plants	Animals

8. A student named cockroach as AMERICAN PERIPLANTA.

(a) Identify two mistakes made in naming the cockroach. (2mks)

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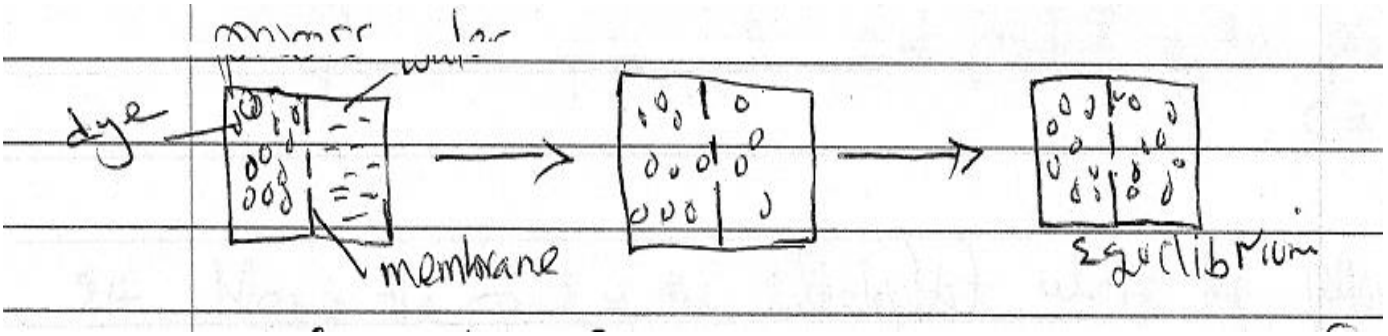
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(b) Write the name correctly. (1mk)

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9 The set up below illustrate a certain physiological process.



(i) Name the physiological process. (1mk)

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(ii) Give two ways in which the movement of dye can be increased. (2mks)

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(b) List at least three factors that affect the process named above. (3mks)

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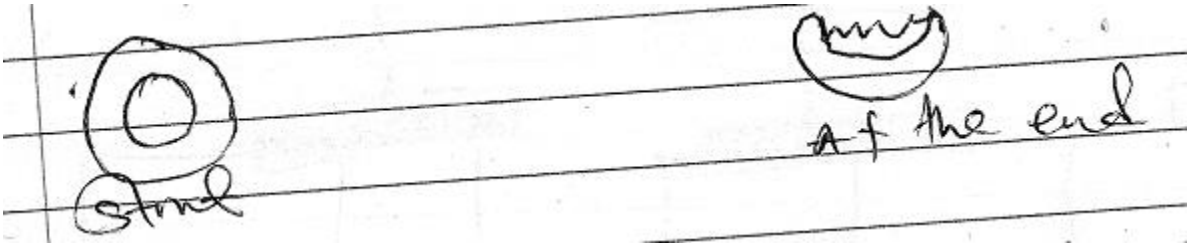
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10 The diagram below show red blood cell that was subjected to certain treatment.



(a) Give the name given to cells appearance at the end. (1mk)

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(b) Name the solution in which the cell was placed in (1mk)

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11 The reation below represent a process that takes place in plants.

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$6\ Co_2 + 6H_2O \longrightarrow C_6H_{12}O_6 + 6O_2$

(a) Name the process (1mk)

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(b) State two factors affecting the process named above. (2mks)

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(c) Explain the fate of the product of the process named above(2mks)

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12 Name the part of the chloroplast where the following occur (2mks)

(i) Carbon (IV) oxide fixation

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(ii) photolysis

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13 Name three plant cells that contain chloroplasts (3mks)

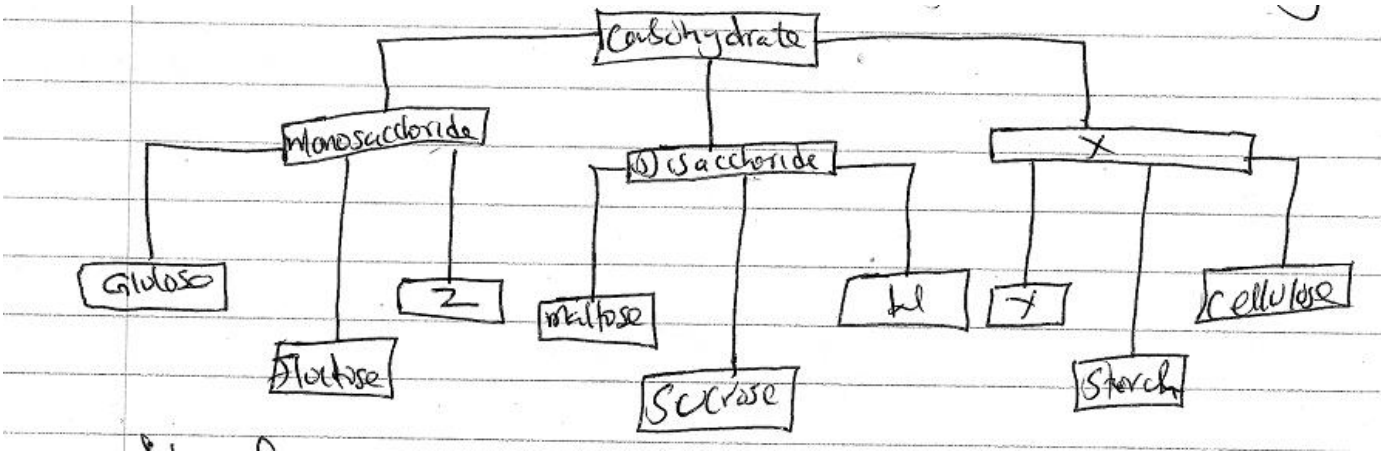
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14 The flow chart below shows classification of carbohydrates.



(a)Identify the form of carbohydrates represented by letters W, X, Y and Z. (4mks)

W ……

X ……..

Y ……

Z ……

15(a) Differentiate between homodont and heterodont teeth (2mks)

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(b) Name two enzyme in the digestive system secreted in their inactive form. (2mks)

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(c) State the name of the juice secreted in the following region, (2mks)

(i) stomach

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(ii) small intestine

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d) State two functions of saliva. (2mk)

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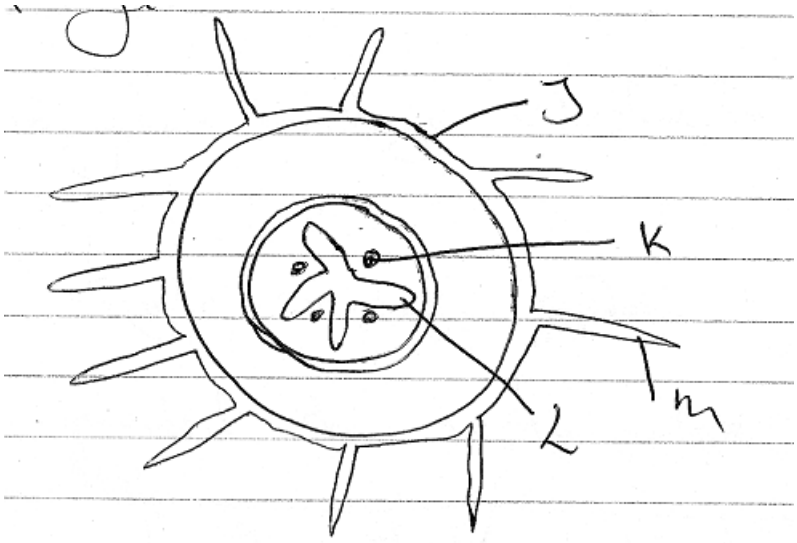
(e) What is the importance of including roughages in the diet. (1mk)

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16 The diagram below represent a transverse section of a plant organ



a) From which plant organ was the section obtained. (1mk)

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

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c) Name the part labeled: (3mks)

J - ……

K -……

L - ……

17(a) State why it is important for plant to lose water to the atmosphere.(2mks)

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(b) Give the importance of mitochondria found in the companion cell of phloem. (1mk)

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18(a) State two function of blood other than transport. (2mks)

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b) State two forms in which carbon (IV) oxide is transported. (2mks)

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19 State the role of the following during blood clotting process (2mks)

(a) Thromboplastin

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(b) Calcium ions

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20 Name two gaseous exchange structures in higher plants. (2mks)

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21 What is a single circulatory system. (1mk)

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22 The table provided shows the transportation of substances in the human body.

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Substance	Transported by blood	
	From	To
Oxygen	M	Heart
N	Liver	Kidney
P	Intestine	All body

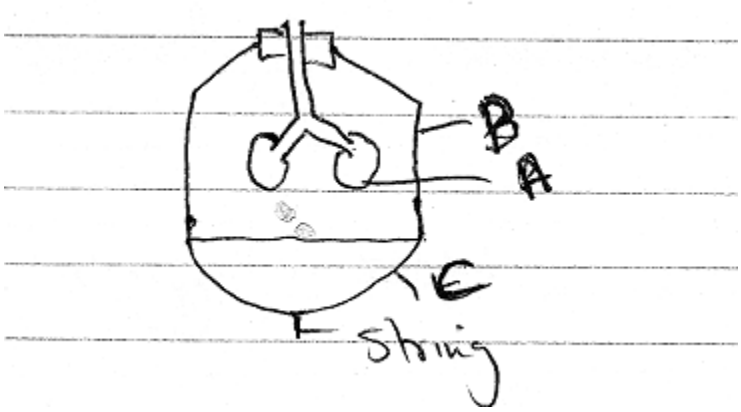
Name substance (3marks)

M ……

N …….

P …….

23The diagram below represent a model used to demonstrate breathing in mammals.



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a) Name the mammalian structure represented by the part labeled Aand B. (2mks)

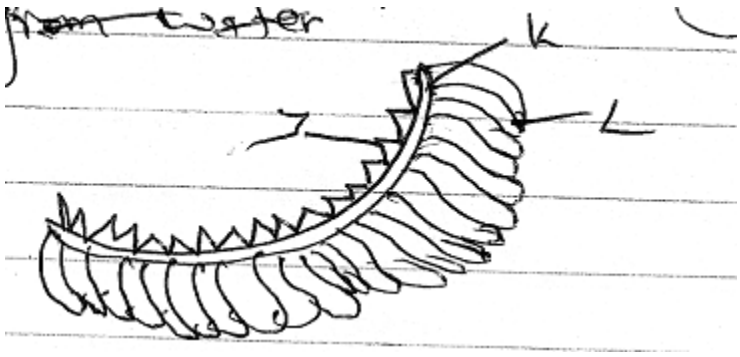
A ……

B ……

24(a) Name three characteristics of a gaseous exchange surface. (3mks)

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(b)The diagram below represent an organ in a bony fish.



(i) Name parts labeled (2mks)

K - ……..

J - ……..

(ii)Explain why bony fish dies shortly after being removed from the water. (2mks)

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25(a) Define the term respiration. (1mk)

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(b) Give three products of anaerobic respiration in plants. (3mks)

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26(a) What is oxygen debt (1mk)

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(b) What happens to lactic acid formed in muscle during excersice when there is sufficient oxygen. (2mks)

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(c) Write an equation to summarize the process of aerobic respiration. (1mk)

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27(a) State two ways in which plant manage their waste. (2mks)

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(b) State one function of each of the following plant product. (2mks)

(i) Papain

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(ii) Colchicine

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28(a) State two structure of the skin essential for its homeostatic function.(2mks)

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b) Name two kidney diseases. (2mks)

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NAME…….

ADM NO……SCH ……

565/1

FORM THREE

BUSINESS STUDIES 565/1

TIME:2 HOURS

FORM 3 TERM 1

MID-TERM 1 SERIES 2 EXAMS

Instructions to candidates.

- Write your name and admission number in the spaces provided.
- Answer all questions in the spaces provided.
- Answer **all** questions in Section A and **three** in Section B
- Answers must be written in English.
- Avoid one word answers

Section A: Attempt all questions in this section

1. Give any four functions of an office. (4 Mks)

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2. Distinguish between the following: (4Mks)
    a. Producer goods and Consumer Goods

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    b. Intermediate goods and Finished goods

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3. The following descriptions relates to some documents used in Home trade. Identify the document that befits the description (4mks)

Purpose of the document	Name of the document
To inform the buyer that goods have been dispatched	
To inform the buyer that the order has been received	
Evidence of delivery of goods	
Corrects an overcharge on an invoice	

4. In each of the following statement give the type of utility created. (4mks)

Statement **Type of utility**

a) Student buying a pen from a school canteen: **……**

b) A farmer taking mangoes to the market:**……**

c) Kamau banking money with Equity bank account**:……**

d) Making a table at carpentry shop**:……**

5. Outline four fundamental features of a good transport system. (4 Mks)

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6. Below are tasks performed by office machines and equipment. State the machine/equipment used to perform each task (4mks)

Task	Machine/equipment
a) Sending and receiving verbal messages	
b) Cutting papers into required sizes	
c) Printing stamp impression on envelops	
d) Sending printed diagrams charts, maps e.t.c.	

7. State four consequences that may arise due to poor arrangement of goods in a warehouse. (4 Mks)

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8. Highlight four Ways in which legal political environment may improve business performance. (4mks)

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9. State four services offered by wholesalers to retailers (4 Mks)

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10. State four functions of an entreprenuer. (4 Mks)

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11. Outline four benefits of a bonded warehouse. (4 Mks)

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12. Outline four difference between a public limited company and a partnership. (4 Mks)

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	Public limited company	partnership
i.		
ii.		
iii.		
iv.		

13. State three measures a consumer may take inorder to satisfy most of his wants. (3 Mks)

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14. Highlight four factors to consider when choosing a method of promoting their product. (4 Mks)

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15. State three circumstances when containers may be used in transport of goods. (3 Mks)

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16. Outline four contents of a business plan (4Mks)

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17. State four reasons why a trader may prefer to advertise of radio over newspaper. (4 Mks)

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18. Outline four circumstances when a partnership may be dissolved. 4 Mks)

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Section B: Attempt any three questions (30 Marks)

19. A shop keeper ordered some items from a wholesaler. However, when the goods arrived, the shopkeeper found out that they were not the items ordered. Describe five reasons for this breakdown in communication between the two business people. (10 Mks)

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20. Describe five types of malpractices that the government protects consumers against by traders. (10mks)

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21. Outline five reasons why an ethical practice is necessary in product promotion. (10mks)

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22. Explain insurance policies that the owner of a supermarket may find useful for the business (10mks)

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NAME……..

ADM NO…… CLASS……SCH ……..

MID-TERM 1 SERIES 2 EXAMS

FORM 3 TERM 1

CHEMISTRY.

FORM 3.

TIME: 2 HOURS.

INSTRUCTION TO CANDIDATES

Answer all the questions in the spaces provided.

FOR EXAMINERS USE ONLY.

QUESTIONS.	MAXIMUM SCORE.	CANDIDATE SCORE.
1-28.	100	

1. State two differences between luminous and non-luminous flames (2mks)

Luminous	**Non-luminous**

2. Name the best method that can be used to separate the following mixtures (3mks)

(a) Sand and Water

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(b) Ethanol and Water

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(c) Sodium Chloride and Ammonium Chloride

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3. Study the table below and use it to answer the questions that follow. (the letters do not represent the actual symbols of the elements.

ELEMENT					
ATOMIC NUMBER					
MASS NUMBER					

(a) Select two letters that represent the same element. Give a reason.(2mks)

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(b) Give the number of neutrons in an atom of element D. (1mk)

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(c) Identify an element that is unreactive. (1mk)

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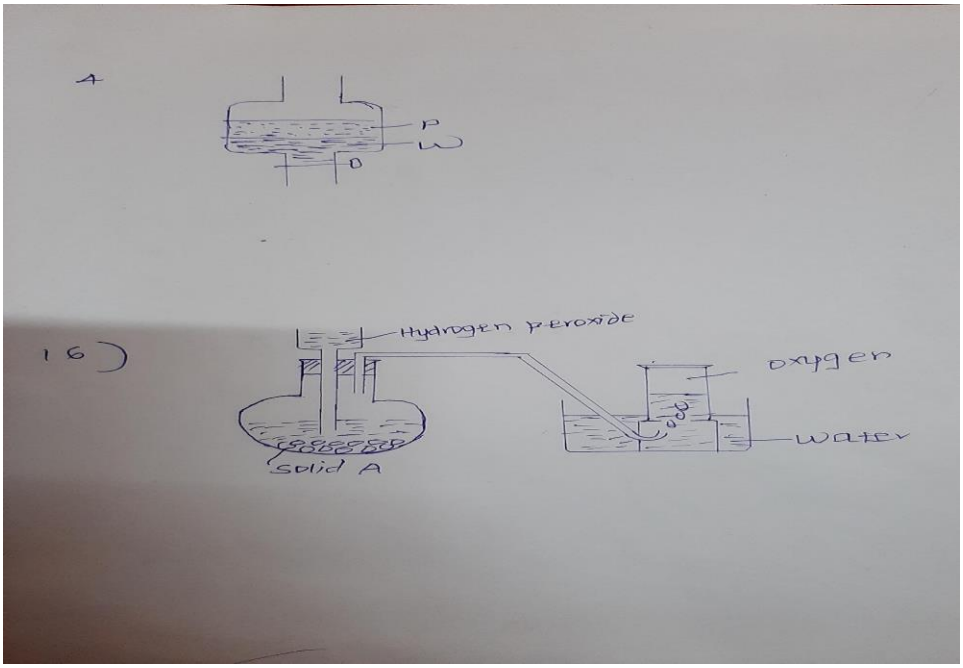
(d) Write the electron arrangement of B. (1mk)

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4. A mixture of kerosene and water was shaken and left to separate as shown in the diagram below.

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State the identity of; (2mks)

(i) P ……..

(ii) W ……..

5. (a)Complete and balance the following reaction. (1mk)

$Zn_{(s)} + HCl_{(aq)}$ ⟶

(b) State two uses of hydrogen gas. (2mks)

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(c)Give a reason why nitric (V) acid is not used in the laboratory preparation of hydrogen gas. (1mk)

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6.(a)What are Isotopes? (1mk)

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(b) The table below shows the relative atomic masses and percentage abundance of the isotopes M_1 and M_2 of element M.

ISOTOPES	RELATIVE ATOMIC MASS	% ABUNDANCE
M_1	60.57	59.71
M_2	62.83	40.29

Calculate the relative atomic mass of element M (3mks)

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7. The structure of an ammonium ion is shown above.

Name the type of bond represented in the diagram by: (2mks)

i) N ⟶ H

ii) N H

8. When calcium granules are mixed with dilute sulphuric acid, a reaction is observed which soon stops. Explain giving the relevant equation.(2mks)

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9. Below are pH values of some solutions.

SOLUTION	P	Q	R	
PH	6.2	3	2	

a) Which solution is likely to be;

(i) Acidic rain ……... (1mk)

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(ii) Sodium Chloride …….. (1mk)

(iii) Dilute sulphuric VI acid ……. (1mk)

(iv) Sodium hydroxide acid ……. (1mk)

10. Dry carbon (II) Oxide gas reacts with heated copper (II) oxide as shown in the equation below.

$CuO_{(S)} + CO_{(g)(S)} \xrightarrow{L)} Cu_{(s)+}CO_{2(g)}$

(a) Name theprocess undergone by Copper (II) Oxide. Explain. (2mks)

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(b) Name another gas that can be used to perform the same function as carbon (II) oxide gas in the above reaction . (1mk)

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11. In the very cold countries, salts are sprinkled on the roads during winter. Explain why this is important. (1mk)

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12. Explain the meaning of each of the following terms;

(a) Efflorescence (1mk)

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(b) Hygroscopy (1mk)

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(c) Deliquescence (1mk)

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13. Using dots (●) and crosses (**X**), show bonding in magnesium nitride (Mg=12, N=7).(2mks)

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14. Below is a table of 1st ionization energies for elements A, B, C, D which are metals

ELEMENTS	A	B	C	D
IONIZATION ENERGY (KJ/MOLE)	528	402	426	355

Arrange the elements in order of increasing reactivity. (2mks)

15. Dilute sulphuric (VI) acid was added to a compound of magnesium P.The solid reacted with the acid to form a colourless solution Q and colourless gas R which formed a white precipitate when bubbled through lime water.

(a) Name;

(i) Compound P (1mk)

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(ii) Solution Q (1mk)

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(iii) Colorless gas R (1mk)

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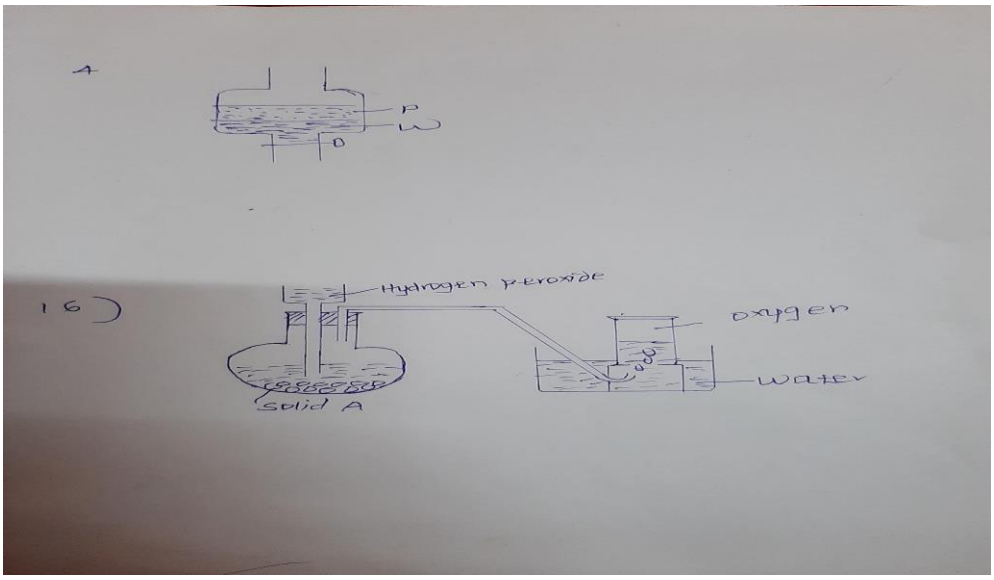
(b) Write a chemical equation for the reaction that took place. (1mk)

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16. The diagram below represents a set up that can be used to prepare and collect oxygen gas.



(a) Name solid A and state its role.

Solid A (1mk)

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Role (1mk)

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(b) What property of oxygen makes it possible for its collection as indicated by the diagram? (1mk)

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(c) Explain why it is important not to collect any gas for the first few seconds of the experiment. (1mk)

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(d) State two uses of oxygen gas. (2mks)

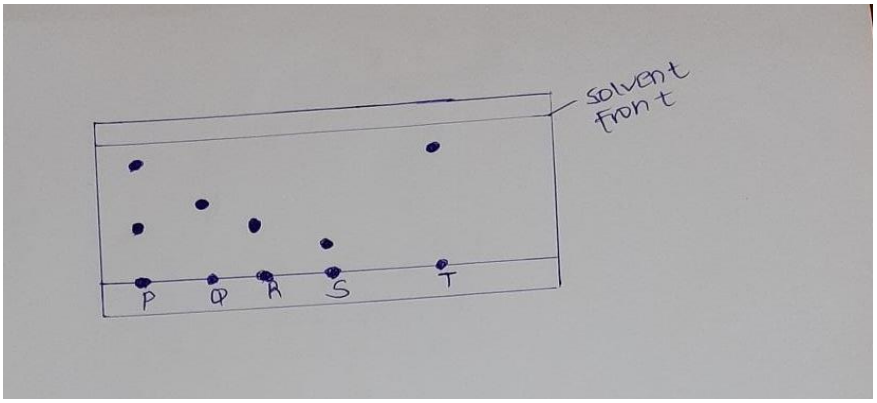
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17. The chromatogram below was obtained from a contaminated food sample P. contaminants Q,R,S and T are suspected to be in P. Use it to answer the following questions.



(a) Identify the contaminants in mixture P. (1mk)

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(b) Which is the least soluble contaminant in P? (1mk)

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18. Two salts P and Q are weighed before and after heating. The results are given in the table below.

CARBONATE	MASS IN GRAMS	
	BEFORE HEATING	AFTER HEATING

(a) Which one is likely to be sodium carbonate? Explain . (2mks)

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(b) If the other salt is zinc carbonate, state the observation made in the process of heating. (1mk)

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19. A form two student was stung by a nettle plant and their chemistry teacher applied ammonia solution to the affected area of the skin and the student was relieved of pain. Explain. (2mks)

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20. The table below gives some properties of substances I, II, III and IV. Study it and answer the questions that follow;

SUBSTANCE	ELECTRICAL CONDUCTIVITY		M.P (^{0}C)	B.P (^{0}C)
	SOLID	MOLTEN		
I	Does not conduct	Conducts	801	1420
II	Conducts	Conducts	650	1107
III	Does not conduct	Does not conduct	1700	2200
IV	Does not conduct	Does not conduct	113	440

(i) What type of bonding exists in substances

I …….. (1mk)

II …… (1mk)

III …….. (1mk)

(ii) Which substance is likely to be sulphur? Explain . (2mks)

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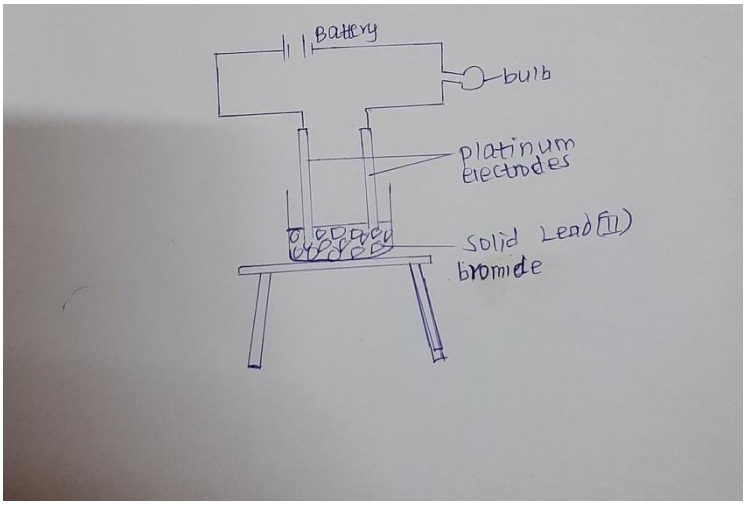
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21. In an experiment to investigate the conductivity of substances, a student used the setup shown below.



The student noted that the bulb did not light.

(a) What had been omitted in the set-up? (1mk)

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(b) Explain why the bulb lights when the omission is corrected. (2mks)

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22 In terms of structure and bonding, explain why graphite is used as a lubricant. (2mks)

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23 State two uses of carbon (IV) oxide. (2mks)

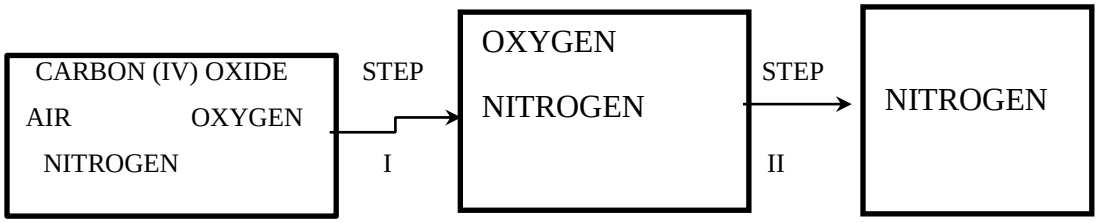
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24 Air was passed through several chambers as shown in the flow chart below.



(a) Name the gases removed in;

(i) Step I (1mk)

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(ii) Step II (1mk)

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b) State the reagent that can be used in :

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(i) Step I (1mk)

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(ii) Step II (1mk)

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25 Name two conditions for rusting. (1mk)

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(b) State three methods that are used to prevent rusting. (3mks)

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26 State two uses of Sodium carbonate. (2mks)

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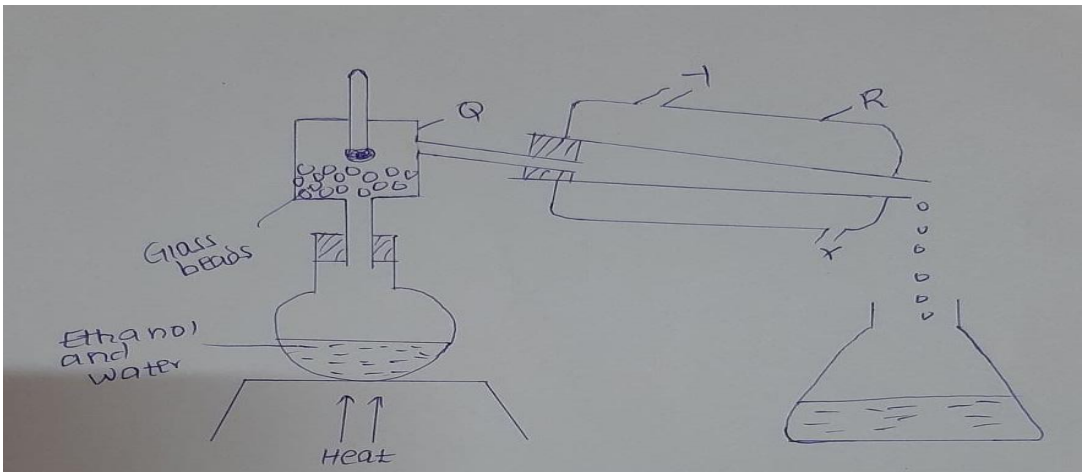
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27 The diagram below shows a set-up of apparatus used to separate a mixture of ethanol (B.P =78^0C) and water (B.P =100^0C).



(a) Name the part labeled Q and state its function. (2mks)

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(b) Name the apparatus R. (1mk)

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(c) In the diagram, label water in and water out. (2mks)

(d) Name the distillate that was collected first. Explain. (2mks)

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(e) Why is a round bottomed flask preferred for the experiment instead of the flat bottomed flask?. (1mk)

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(f) What is the purpose of glass beads?.

(1

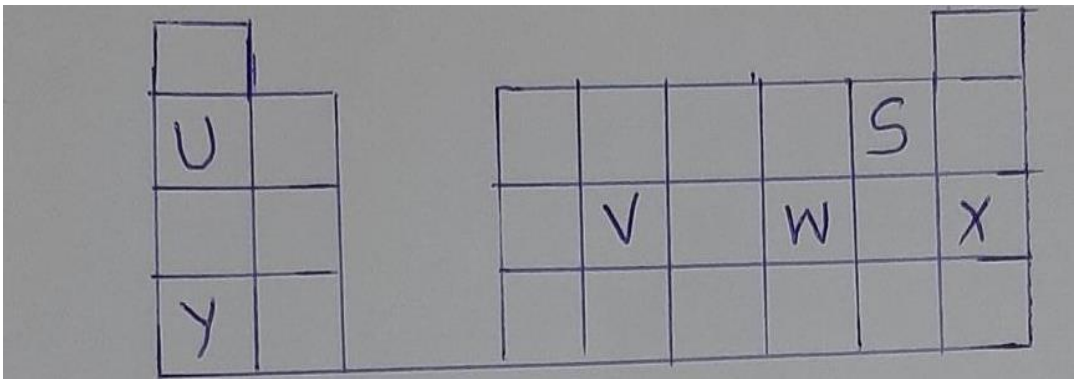
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28 The grid below is a section of the periodic table. The letters do not represent the actual symbols of the elements. Use it to answer the questions that follow.



(a) Select the elements which belong to the same;

(i) Group (1mk)

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(ii) Period (1mk)

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(b) What name is given to the family of elements to which X belongs? (1mk)

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(c) Write the chemical formula of the carbonate of element Y. (1mk)

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(d) Which letter represents the most reactive?

(i) Metal …… (1mk)

(ii) Non-metal …….. (1mk)

(e) Name the bond formed when U and W react. Explain your answer.(2mks)

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(f) Indicate on the grid the position of an element represented by letter R whose atomic number is 15. (1mk)

(g) Identify one element which does not form an oxide. (1mk)

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(h) Write three uses of alkali metals. (3mks)

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FORM 3 TERM 1 EXAMS

MID-TERM 1 SERIES 2 EXAMS

FORM 3 C.R.E.

TIME: 2 HOURS

NAME: ……..

ADM. NO:……CLASS:……SCH…….

INSTRUCTIONS:

1. **Answer all the questions in the spaces provided.**
2. **Answers must be written clearly.**
3. **Answer the questions in English language**

1. a) State eight promises that God made to Abraham during his call. (8mks)

---

b) Give the incidences when Abraham demonstrated his faith in God (7mks)

---

c) State five modern forms of the covenant. (5mks)

---

2. a) Outline 6 effects of idolatry in Israel during the time of Elijah (6mks)

---

b) Describe Mt. Carmel contest (1 kings 18:17-46) (8mks)

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c) Identify six forms of idolatry that threatens the existence of Christianity today. (6mks)

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3. a) In which ways was the birth of Jesus going to be extra-ordinary (6mks)

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b) Describe the temptations of Jesus in the wilderness (8mks)

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c) Identify the temptations that young people face in Kenya today. (6mks)

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4. a) Relate the parable of the wicked tenants (Luke 20: 9-18) (8mks)

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b) Name the methods used by Jesus to spread the good news (6mks)

---

c) State the reasons why people find it difficult to accept the gospel (6mks)

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a) Name six specialists in traditional African communities. (6mks)

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b) Give reasons why cleansing rituals were performed in Traditional African Society (7mks)

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c) State the factors that undermine the roles of elders. (7mks)

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NAME: _____

ADM NO:_____ DATE:_____CLASS_____

SIGNATURE_____SCH _____

MID-TERM 1 SERIES 2 EXAMS

FORM 3 TERM 1

ENGLISH FORM 3

TIME 2 ½ HOURS

INSTRUCTIONS

1. Write your name and admission number on the spaces provided above
2. Answer all questions on the spaces provided
3. Confirm that the paper has all sections before beginning the exam

This paper consists of six sections as follows:

SECTION A	WRITING	20MKS
SECTION B	COMPREHENSION	20MKS
SECTION C	CLOZE TEST	10MKS
SECTION D	ORAL SKILLS	10MKS
SECTION E	LITERARY APPRECIATION	20MKS
SECTION F	GRAMMAR	20MKS
	TOTAL	**100MKS**

SECTION A : WRITING (20MKS)

1. You are the chairperson of Amani Debate club in your school. Last Saturday, you had invited a neighbouring school for a debate in your school. The rest of the school also attended the debate; which ended at 6:00pm instead of 4:00pm as earlier agreed. This delayed other school programmes.

a) Write an apology letter to the Principal of your school, citing reasons for the delay (14mks)

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b) Write the notice that you had posted on your school's notice board informing and inviting the rest of the school for the debate (6mks)

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SECTION B: COMPREHENSION (20MKS)

Read the passage below and answer the questions that follow.

We are often advised to be confident: confidence comes when we feel passionately about what we perform, what we have achieved, and what we can offer.

Lack of confidence can hinder things, ranging from how you get ahead in your career to the number of skills you are able to acquire. It is a determining factor in the way you direct your career. Confidence is conveyed from the inner to the outer through the words you speak and the posture you assume. Building confidence is not a one day affair. Neither does it take other people to build your confidence.

I remember an interview I once conducted for secretaries, and the memory of one woman is intact. She stammered from the point she entered the office to the moment she left. Thinking that it was interview jitters, we called her again, based on her technical qualifications rather than her presentation. She presented the same problem. We settled on a different candidate because confidence was a key qualification for the job which involved dealing with clients and colleagues.

Not many entry-level and first-time job-seekers are coached or tutored on how to gain more self-confidence. Instead, we tell them to "attend a few events, meet more people and get the hang of it." That is not the right approach. Often, by the time you " get the hang of it." You will have probably ruined a few chances, stepped on a few toes, and generally spoilt a few opportunities. Confidence starts from within, which means working with yourself to find an effective method on your capabilities.

Having had quite some experience interviewing and being interviewed, I have developed three sure-fire ways that not only help me before an interview, but

improve my general self-confidence. You must start with one as you progress and eventually build your own self confidence.

I have learnt that confidence begins with pushing yourself towards positive attitude. Before an interview, I tell myself that I am capable of great things, great performance and that interview is only a little chat I must have to get a job. Not only do I talk myself into entering the interview room, but I also talk myself into achieving success, whether or not I need the job about 90 percent of the time, I have been successful in interviews.

Doubting oneself only leads to criticizing oneself, which plants deep roots that can be almost impossible to weed out. My mentor always used to say, "You are what you think you are."

Secondly, beginning with one small step rather than giant leaps will ensure that you tackle interviews and first jobs with a lot of self-confidence. There are two ways to go through this.

The first one has to do with something you that like doing, such as writing a song. However, this should not be just any song but a new one created out of your love for music. My personal pre-interview confidence boost is to cook something that I have never tried before. This boosts my self-confidence to new levels. After achieving that particular goal, you must pat yourself on the back.

The third step to building confidence involves holding onto that little surge of confidence. Once you have tackled what you have previously found to be difficult, then the next step would be to focus on building your self confidence a lot further.

Ensure that this becomes not only a monthly confidence boost, but a daily one because, as we are all programmed, we must build our self-confidence habitually to

maintain it. Routines have been known to help anybody to acquire and maintain confidence.

From daily Nation 20th May 2013.

Questions

a) Define confidence according to the passage (3mks)

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b) How is confidence conveyed? (2mks)

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c) What suggestions are given to first-time job seekers to help them in gaining more self –confidence? (3mks)

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d) What does the writer identify as a major hindrance to confidence? (1mk)

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e) According to the writer, what two key qualifications were they looking for in interview for secretaries? (2mks)

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f) Identify the **three** ways the writer mentions that help before an interview and improve in self confidence. (3mks)

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g) In **note** form, write what the writer has been doing to achieve success in interview (4mks)

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h) Explain the meaning of the following words as used in the passage (2mks)

i. Interview jitter

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ii. Habitually

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SECTION C : CLOZE TEST (10MKS)

Fill in the blank spaces with the most appropriate words.

Some parents prefer day schools (*1)* _____ boarding schools for their children. They say that boarding schools do not give them a (*2)* _____ to know the teachers of their children (3)_____. These parents also feel that boarding schools lock them (*4)*_____ of their children's learning. This is (*5)*_____some boarding schools *(6)* _____ parents to visit their children *(7)* _____ once a term. They say *(8)* _____ a day school provides (9)_____ time for parents to monitor *(10)*_____ children's learning.

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SECTION D: ORAL SKILLS (10MKS)

a) The following words have either /s/ or /z/ sound. Group them correctly (5mks)

Rise	lose
President	advise
Loose	precedent
advice	rice
clause	lice

/s/	/z/

b) For each of the following words, underline the stressed syllable (5mks)

i. Mis.use (noun)

ii. re.gis.ter (verb)

iii. a.larm (noun)

iv. a.gree.ment (noun)

v. ap.proach (noun)

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SECTION E: LITERARY APPRECIATION (20MKS)

Read the narrative below and answer the questions that follow

Once upon a time there lived a very beautiful girl known as Karia in a distant village. One day, Karia and her mother went to dig in their garden by the edge of the forest that was home to ogres that could talk and even sing. When it was time to leave, the mother called out to her daughter who was bathing in the stream near the garden, 'Karia, we had better rush home; darkness will soon descend upon us and there are many ogres along the way'.

Karia hurriedly picked up the luggage her mother had packed and they went home. On reaching home, Karia realized that she had left her beautiful necklace by the stream where she had taken a bath. Her grandmother had given it to her saying, 'Take good care of this necklace and pass it on to your eldest daughter.'

Karia was very depressed at the fact that she had left it beside the stream.

'Mother, I have to go back for the necklace. I forgot it by the stream,' Karia said. 'No my dear daughter, it is already dark outside and besides the ogres are roaming the forest.' She could not bear the thought of her only daughter setting out in the pitch of darkness.

The girl started crying , saying that if she waited for daylight, she would find the necklace missing. Her mother withdrew to the kitchen to check whether the food was ready, she came out only to find Karia missing.

"Karia! Karia! Karia! Where are you? Come!" She called out. It dawned on her that Karia must have gone back to the stream for the necklace. She immediately ran to her brother-in-law's home in search of her husband panting; 'Father of Karia, gather other men, Karia has gone back to the stream for her necklace! Oh, my only

daughter…those ogres…what will I do? 'What is wrong with my daughter? I could have bought her another necklace,' said Karia's father.

It took about an hour for the men to prepare themselves and set out for the search. Their hearts beat with apprehension as they pressed through the dark.

Karia had been running swiftly and by this time she was by the edge of the forest. She slowed down for the remaining part of the journey in order to catch her breath. The early morning wind chilled her skin. The thought, 'If I failed to get back the necklace, what will I tell my granny?' quickened her pace to where she had undressed and found that her necklace was intact. Joy flooded her heart. She quickly picked up the necklace and started on her way home with a sprinty leap, laughing at her mother's fear of ogres.

She had hardly taken a few steps, when she met an ogre squarely planted at the middle of the path. In order to be allowed to pass she sang:

You ogre
Do not bother me
I am Njanwa's daughter
Take this bead
And let me pass

The ogre accepted the bead and let her pass only to run through the bush past her and stop in the middle of the road. She reached the point where it stood blocking the way and then she repeated her song. By the time she was half way back home, she had run out of beads.

Having no alternative, she tearfully said,

'Take this arm and let me pass.'

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Through her sorrow and pain, she thought of the necklace and the ogre that still demanded something in exchange for passage.

After a while, she had only one leg and so the ogre decided to eat her up. Her father and the village elders came upon the satisfied ogre. They speared it and slit it open its belly. To their delight, Karia emerged, holding the beautiful necklace. There ends the story.

(Adapted from Narratives from Africa and India for secondary schools and colleges)

Questions

a) Classify the narrative above (2mks)

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b) State any two functions of each of the formulae.

i. "Once upon a time…" (2mks)

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ii. "There ends my story." (2mks)

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c) Apart from the formulae "Once upon a time…" and "there ends my story", identify and illustrate three features that indicate that the story is an oral narrative. (6mks)

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d) Identify and illustrate two character traits of Karia. (4mks)

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dentify and illustrate one theme evident in the narrative above (2mks)

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e) With illustration, identify one economic activity that is practiced by the community in the narrative (2mks)

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SECTION F: GRAMMAR (20MKS)

a) Fill in the blank spaces using the most appropriate form of the word in the brackets (4mks)

i. It was never his_____ to start a fight. (intend)

ii. We all got angry because of the speaker's _____ remarks. (offend)

iii. He is an _____expert .(electron)

iv. He _____ believes in hard work.(true)

b) Join the pairs of sentences into one sentence using the conjunction provided (3mks)

i. -He has never done any fighting.

-He is a soldier. (although)

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ii. –Everybody else in that country was blind.

-The one-eyed man became a king. (because)

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iii. –I met the man.

-The man's wife bought a car. (whose)

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c) Rewrite the sentences as instructed. Do not change the meaning. (3mks)

i. I will only go if he asks me to. (Begin ; unless)

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ii. I think we are being followed by somebody. (change into active voice)

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iii. "Are you writing the proposal?" asked the supervisor. (Change into reported speech)

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d) Fill in the blank spaces using the correct preposition (4mks)

i. The visitors arrived_____ Christmas day

ii. The explanation you want is_____the top of page 20.

iii. The student insisted _____ doing the test at night.

iv. There is no possibility _____finishing this work today.

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e) Use the simple present tense of the verb in brackets to fill in the blank spaces (3mks)

i. Each of the books_____ (cost) over three hundred shillings.

ii. Neither of the parcels_____(have) what I was expecting.

iii. Few people_____(believe) in superstitions.

f) State the type of phrase underlined. (3mks)

e.g The girl from our village won <u>the award</u>- noun phrase

i. The dog <u>might eat</u> the cake

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ii. We are expecting him to come <u>next year</u>.

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iii. <u>Swimming costumes</u> are very expensive

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NAME: ……

ADM NO……SCH …….

MID-TERM 1 SERIES 2 EXAMS

GEOGRAPHY FORM 3

FORM 3 TERM 1

INSTRUCTIONS TO STUDENTS:

1. **Write your name, admission number and class in the spaces provided.**
2. **Answer all the questions in this paper.**
3. **All answer must be written in the spaces provided.**
4. **Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.**

SECTION A(25MKS)- ANSWER ALL THE QUESTIONS IN THIS SECTION (25MKS)

1. (a) State three reasons why the interior of the earth has high temperatures. 3mks

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(b) Give two differences between Sial and Sima. 2mks

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2. (a) Give two ways in which heat is transferred to the atmosphere. 2mks

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(b) Describe how humidity is measured in a weather station. 4mks

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3. (a) State two conditions that are necessary for the formation of petroleum. 2mks

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(b) The table below shows some examples of rocks. Complete it. 3mks

Original rock	**metamorphic rock**
Granite	
Sand	
Clay	

4. (a) Name two effects of horizontal earth movement . 2mks

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(b) State two weaknesses of continental drift theory. 2mks

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5. (a) Name two modern methods used in weather forecasting . 2mks

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(b) State three ways in which weather forecasting is important to man. 3mks

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SECTION B(ANSWER ALL THE QUESTIONS (75MKS

6. (a) (i) what is folding. 2mks

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(ii) State three factors which influence folding. 3mks

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(iii)Differentiate between symmetrical and asymmetrical fold. 2mks

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(b)(i) Name three fold mountains found outside Africa. 3mks

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(ii) Apart from fold mountains, name two features produced by folding. 2mks

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(iii) Describe how fold mountains are formed. 5mks

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(c)Explain four ways in which fold mountains influence human activities. 8mks

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7. (a)(i) Name two types of vegetation. 2mks

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(ii) Give two Pssyiographic factors influencing vegetation distribution. 2mks

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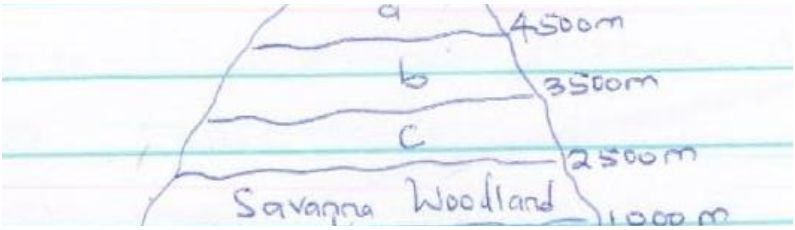
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(b) The diagram below shows vegetation zones of an east African mountain .Use it to answer the questions that follow



(i) Name the zones marked a,b,c and d . 4mks

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(ii) Give one reason why there are no vegetation cover on top of the mountain. 1mk

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(c)(i) State the name given to temperate grassland vegetation in :2mks

-North America- ……..

-Argentina- …….

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(ii) Explain three uses of Savanna vegetation. 6mks

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d)Explain four characteristics of tropical desert vegetation. 8mks

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8. (a) The table below shows the production of various horticultural crops in Kenya between 2008 and 2010 in "000" tonnes.

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Crop/Year	2008	2009	2010
Cabbages	380	340	320
Tomatoes	340	360	360
Onions	360	320	340
Oranges	400	380	380

(i)***Using a scale of 1cm represent 50,000 tonnes,draw a comparative bar graph to present the data above. 8mks***

(ii) Name the crop that has the highest production within the period. 1mk

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(iii)Give two advantages of using comparative bar graphs. 4mks

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b) identify the two types of photographs. 2mks

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(c)Give two uses of photographs. 4mks

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(d) Give two differences between aerial photographs and ground photographs. 4mks

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(e) Define the following term used in photographs:

Dead ground 2mks

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FORM 3 TERM 1

MID-TERM 1 SERIES 2 EXAMS

FORM II HISTORY

TIME 2HRS

NAME: .....

ADM NO:..... CLASS: .....

SECTION A (25MKS)

ANSWER ALL THE QUESTIONS IN THIS SECTION.

1. Name two sources of history of the Kenyan communities during the pre-colonial period. (2 Marks)

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2. Give two factors which led to the migration and settlement of the Iteso into Kenya by 1800 A.D. (2 Marks)

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3. Identify two aspects of the culture of the early man that had their origin in the late Stone Age. (2 Marks)

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4. Identify two factors which favoured the development of crop growing in ancient Egypt. (2 Marks)

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5. In what two ways did the Kenyan communities interacted during the pre-colonial period. (2 Marks)

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6. What was the base of the political organization among the Cushites during the pre-colonial period. (1 mark)

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7. Identify the two economic activities which the Maasai acquired as a result of interacting with the Agikuyu during their settlement in Kenya. (2 Marks)

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8. What religious functions did the Orkoiyot of the Nandi perform during the pre-colonial period.? (2 Marks)

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9. Name two Bantu communities in Kenya whose ancestors settled in the Mt,. elgon area before migrating to their present homeland. (2 Marks)

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10. State any two Arab families that ruled the coastal town. (2 Marks)

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11. Distinguish between barter and currency trade. (2 Marks)

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12. State two roles played by the Tuaregs in the Trans-Saharan Trade. . (2 Marks)

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13.State two ways in which direct democracy is exercised in Kenya. . (2 Marks)

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SECTION B **(45 MARKS)**

ANSWER ANY THREE QUSTIONS FROM THIS SECTION.

14.(a) State any three theories about the origin of human beings. . (3 Marks)

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(b) Discuss the benefits of the discovery of fire by early man. (12 Marks)

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15.(a) State reasons for the migrations of Eastern Bantu speakers into Kenya by 1900A.D. (5 Marks)

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b) Discuss the results of the migration and settlement of the Eastern Bantu into Kenya by 1900 A.D. (10 marks)

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16.(a) Why were the Portuguese able to control the Kenyan Coast between 1500 and 1700 A.D. (3 Marks)

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(b) Describe the results of the Portuguese rule along the Kenyan Coast. (12 Marks)

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17.(a) What were the economic activities of the people of the Asante Empire? (3 Marks)

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(b) Describe the political organization of the Asante Empire during the 10th Century (12 Marks)

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SECTION C

ANSWER ALL THE QUESTIONS IN THIS SECTION.

18.(a) State five values of good citizenship. . (5 Marks)

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(b) Explain five factors that promote national unity in Kenya. (10 Marks)

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19.b) Mention three stages of the constitution making process in Kenya. (3 Marks)

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(a) Discuss six features of the independence constitution of Kenya? (12Marks)

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JINA ……

NAMBARI ……DARASA……...SHULE ……

MID-TERM 1 SERIES 2 EXAMS

KIDATO CHA TATU MUDA: SAA 2 ½

MAAGIZO

(a) Andika jina lako na nambari yako ya mtihani katika nafasi ulizoachiwa hapo juu.

(b) Jibu maswali yote.

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

(d) Majibu yote lazima yaandikwe kwa lugha ya Kiswahili.

(e) Watahiniwa lazima wahakikishe kwamba kurasa zote za karatasi hii zimepigwa chapa sawasawa na kuwa maswali yote yamo**.**

Kwa matumizi ya mtahini pekee.

Swali	**Upeo**	**Alama**
A	**20**	
B	**15**	
C	**40**	
D	**10**	
E	**15**	
JUMLA	**100**	

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A. INSHA

Andika ratiba itakayotumiwa katika siku ya mchango wa pesa za kujengea ukumbi wa tamasha .

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B. UFAHAMU

Soma makala ya ifuatayo ki sha ujibu maswali.

Mabadiliko ya hali ya anga ni suala nyeti katika ulimwengu mzima. Suala hili sasa limetoa msukumo wa kulazimu kupanua nafasi ya uhifadhi wa mazingira .

Kwa sasa, ni bayana kuwa waja wakiendelea na mtindo wa maisha ya kibepari ya kutumia mali asili kwa ulafi wa kukidhi tu haja zao bila kujali maslahi ya wengi, basi dunia itahiliki hatimaye.Lazima tufahamu fika kuwa tunapaswa kutumia mazingira yetu kwa manufaa ya leo na kwa vizazi vya kesho.

Tayari athari za mabadiliko ya hewa yameanza kuathiri kila sehemu ya nchi yetu ya Kenya. Mvua hainyeshi jinsi ilivyokuwa awali, kilimo kinafeli kwa sababu ya kuzidi kwa kiangazi, maelfu ya mifugo wamekufa kwa kukosa malisho na maji. Jamii za wafugaji sasa zinakosa lishe bora kwa sababu ya dhiki na ufukara. Bei za bidhaa za kimsingi zimepanda mijini na mshambani kutokana na ukame ulioko sehemu nyingi. Isitoshe chemchemi za maji zinapotea huku mito ikikauka, wanyama pori wanakufa kwa njaa na kiu, makabiliano kati ya binadamu na wanyama pori yameongezeka, nao ufukara unaongezeka kila siku miongoni mwa umma. Hali hii sasa inachangia kuzorota kwa usalama hasa katika sehemu kame. Kuna visa vingi vya kuibiana mifugo na kubishiana chemchemi za maji na mali asli. Asilimia kubwa ya mito imekauka, chemchemi za maji zinapotea na vinamisi vya milima ya taifa havipo tena kutokana na uharibifu wa misitu na utumiaji mbaya wa malisasili.

Ndiyo maana hutajasita kukariri kuwa mabadiliko ya hali ya anga ni mtikisiko wa kitaifa kwani ni hali ya hatari na kuwa kila mtu ana jukumu kujitahidi kiasi cha

uwezo wake kuchangia uhifadhi wa mazingira .Mvua ikinyesha tupande miti, tuhifadhi chemchemi za maji na sehemu za unyevunyevu tulinde mito na maziwa yetu;tulime huku tukihifadhi udongo wetu,tufuge ,si kwa haja ya kuwa na mifugo wengi bali kwa kukidhi mahitaji na pia kulinda mazingira;tujitayarishe kuhifadhi maji ya mvua kwa ajili ya matumizi ya nyumbani na kilimo tuzidishe juhudi za kupanda mimea mbalimbali ya chakula huku pia tukifufua ile ya kienyeji.

Hatakati za kupambana kuhifadhi msitu wa Mau,ambao ni chanzo kikubwa zaidi cha maji na mito nchini na hata Afrika Mashariki zinajulikana .Kutokana na vitendo vya ulafi wa viongozi wetu msitu huu umevamiwa na kuharibiwa na hata unatishia maisha ya mito, maziwa, mbuga za kuhifadhi wanyama pori na mamilioni ya watu wanaotegemea msitu huu kwa njia moja au nyingine.Tunatambua kwamba juhudi nyingi zinafanywa na serikali kutokana na shinikizo za wa wakereketwa na wadau wa mazingira .Lakini lazima serikali itumie uwezo wake wote kulinda misitu ya Mau,Mlima Kenya,mlima Elgon na misitu mingine kwa jumla.Tusipuuze misitu na mazingira kwa sababu ya siasa duni.

Serikali haifai kuachiwajukumu la kulinda misitu pekee bali wananchi pia wanafaa wajitume kwani mazingira yanahusu uhai wa kila mmoja wetu.Kuntu umoja ni nguvu utengano ni udhaifu.Ndiyo maana tunachukua fursa hii kuwapongeza wakazi wa Malava katika kauti ya Kakamega ambao hivi majuzi walijitokeza mzomzo kupinga uharibifu wa msitu huo na kuungana pamoja kupanda takriban miche hamsini elfu.watu waharibifu wasiruhusiwe kuangamiza misitu , mazingira, mandhari na masiha kule Malava.

Serikali pia inapaswa kutenga hela kulinda misitu inayofunika milima.Milima ya taifa ni mandhari yanayopendeza nchini na lazima kila juhudi za kulinda uhai katika milima hii zifanye .Ni jukumu la maafisa wa ardhi ,wa mazingira na wa misitu kutoa ushauri kwa serikali kwamba kuna hatari ya misitu kumalizwa na watu wabinafsi.Sheria ihimizwe na wananchi wahamasishwe huhusu umuhimu wa kulinda na kuimarisha mazingira.

Maswali

a. Toa kichwa mwafaka kwa taarifa hii. Al 1

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b. Mabadiliko ya hali ya anga husababiswa na nini? Al 2

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c. Toa athari tatu tatu zinazosababishwa na kubadilika kwa hali ya anga.Al 3

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d. Kwa nini mwandishi ansema hatasita kukariri kuhusu hali ya hatari? Al 3

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e. Ni sababu gani zilichangia kuharibiwa kwa msitu wa Mau? Al 1

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f. Eleza sababu za mwandishi kusema umoja ni nguvu utengano ni udhaifu. Al 1

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g. Nini kiini cha kuzuia uharibifu wa msitu wa Malava? Al 2

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h. Eleza maana ya vifungu vifuatayo kama vilivyotumiwa katika taarifa hii. Al 2

i. Vizazi vya kesho

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ii. Mtikisiko wa taifa

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C. MATUMIZI YA LUGHA

1. Andika neno lenye sauti zifuatazo . al 2

Kimadende,irabu ya nyuma juu,kitambaza, irabu ya kati chini.

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2. (a) Mofimu ni nini? Al 2

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(b) Ainisha mofimu katika neno lifuatalo. aingiapo. Al 2

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3. Andika neno lenye muundo ufuatao.

KKIKKKI AL 2

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4. Tumia kirejeshi cha mwisho kuandika sentensi ifuatyo.

Watoto wanaochezea pale ni wangu upya. Al 2

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5. Tunga sentensi mbili kutofautisha kitenzi chuma. Al 2

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6. Maneno yafuatayo yamo katika ngeli zipi (al 2)

i. Karatasi

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ii.Nyangumi

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7. Onyesha aina za maneno yaliyopigiwa mstari

i. Mwalimu <u>msichana</u> alienda <u>Mombasa.</u> Al 2

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ii. Alichezewa <u>na</u> watoto wabaya <u>sana.</u>

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8. Kirai ni nini? Al 2

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9. Geuza sentensi ifutayo iwe katika hali ya ukubwa wingi. Al 2

Mtoto alimkamata mbuzi mwingine .

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10. Andika kinyume cha: al 2

Jana walianika nguo za mvulana huyo.

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11. Unda nomino kutokana na maneno yafuatayo. Al 2

i. Mwalimu

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ii. Mwandishi

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12. Yakinisha al 2

Wasiposoma kwa bidii hawatapita mtihani huo.

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13. Pambanua sentensi ifuatayo kwa kielezo cha mstari. Al 2

Huyo ni mtoto mzuri sana.

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14. " Tutaanza kulima kesho," ,mama alimwambia mwanawe. Andika katika usemi wa taarifa. Al 2

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15. Eleza matumizi mawili ya mshazari. Al 2

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16. Tunga sentensi yenye muundo ufuatao.

Nomino ya dhahania ,kivumishi kimilikishi, kitenzi halisi na kielezi. Al 2

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17. Tambua vipashio vya lugha ukianzia na cha kiwango cha juu kisha uvitiolee mifano. Al 4

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18. Andika kwa wingi al 2

Duka lililofunguliwa asubuhi lilifungwa magharibi.

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D. ISIMU JAMII AL 10

Taja na ueleze sifa za sajili ya kituo cha polisi

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E. FASIHI SIMULIZI

1. Andika umuhimu wa nyiso katika jamii. Al 5

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2. Eleza sifa za maigizo. Al 5

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3. Tambua dhima ya mighani katika jamii. Al 5

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NAME…….

ADM.NO…… CLASS……DATE ……..

SCHOOL:……...

MATHEMATICS TIME: 2½ HRS.

FORM 3 MID-TERM 1 SERIES 2 EXAMS

INSTRUCTION TO STUDENTS:

1. *Write your **name**, **admission number** and **class** in the spaces provided above.*
2. *Write the **date** of examination in spaces provided.*
3. *This paper consists of **two** Sections; Section **I** and Section **II**.*
4. *Answer **ALL** the questions in Section **I** and only **five** questions from Section **II**.*
5. *All answers and working must be written on the question paper in the spaces provided below each question.*
6. *Show all the steps in your calculation, giving your answer at each stage in the spaces provided **below** each question.*
7. *Marks may be given for correct working even if the answer is wrong.*
8. *KNEC Mathematical tables **may be** used, except where stated otherwise.*
9. *Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.*
10. ***Candidates should answer the questions in English.***

FOR EXAMINER'S USE ONLY:

SECTION I

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

17	18	19	20	21	22	23	24	TOTAL

SECTION II

GRAND TOTAL

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SECTION 1 (50 marks)

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

1. Evaluate $\dfrac{\frac{1}{2}\ of\ 18 \div -3 + 2\frac{1}{2} \times \frac{3}{-5}}{\frac{1}{2} + 3\frac{3}{4} \div \frac{3}{4}}$ (3 marks)

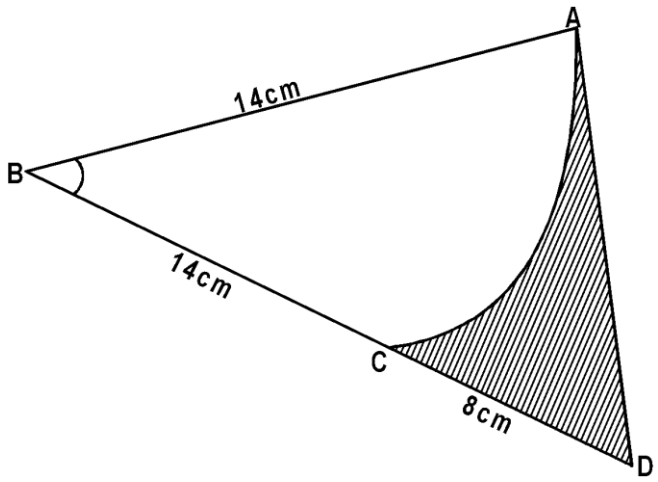
2. Solve the following without using mathematical tables or calculator.(3 mrks)

$$\frac{3600}{\sqrt[3]{27000}}$$

3. A square based brass plate in 4mm high and has a mass of 1.05kg. The density of the brass is 4.2g/cm³, calculate the length of the plate in centimeters. (3 marks)

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Calculate the area of the shaded region given that AC is an arc of a circle centre B. AB = BC = 14cm. CD = 8cm and angle ABD = 75°. (Take $\pi = {}^{22}/_{7}$)(4 marks)

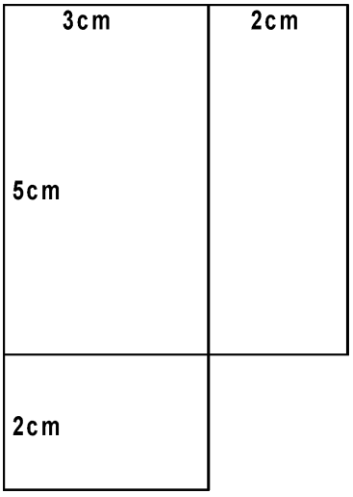


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4. A milk vendor bought 20 litres of milk at shs 15 per litre and added 5 litres of water to the milk. If he sold the mixture at shs 18 per litre, what was his percentage profit?

(3 marks)

5. Complete the figure below so as to make the net of a cuboid. Hence determine the surface area of the cuboid. (4 marks)



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6. Solve for *x* in the $125^{(x+1)} + 5^{3x} = 630$ equation. (3 marks)

7. Simplify $\frac{6x^2-8xy+2y^2}{18x^2-2y^2}$ (3 marks)

8. A man walks directly from point A towards the foot of a tall building 240m away. After covering 180m, he observes that the angle of elevation of the top of the building is 45°. Determine the angle of elevation of the top of the building from A. (3 marks)

9. In a regular polygon, the size of an interior angle is 20° more than three times the size of its exterior angle. Find the number of sides in this polygon. (3 marks)

$$\frac{6x^3 - 8x^2y + 2xy^2}{18x^3 - 2xy^2}$$

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

	Buying (Ksh)	Selling (Ksh)
1 Euro	147.56	148.00
1 Us 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 Ksh 2510200 while in Kenya and converted the remaining Kenya shillings into US Dollars at the bank. Find the amount in dollars that he received. (3 marks)

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

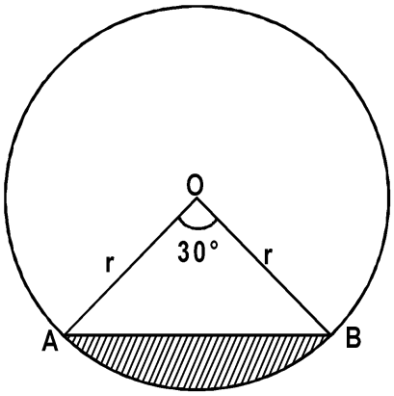
$$3 - 2x < 5$$

$$4 - 3x \geq -8$$ (3 marks)

12. A cylinder of radius 14cm contains water. A metal solid cone of base radius 7cm and height 18cm is submerged into the water. Find the change in height of the water level in the cylinder. (4 marks)

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13. The figure below show a circle centre O. Chord AB subtends 30° at the centre. If the area of the minor segment is 5.25cm², find the radius of the circle. (3 marks)



14. A point (-5, 4) is mapped onto (-1, -1) by a translation. Find the image of (-4, 5) under the same translation. (2 marks)

15. Evaluate using Logarithms (4mks)

$$\frac{(0.0021+0.0035)^{\frac{1}{2}}}{1.38\times 27.42}$$

SECTION II (50 marks)

Answer only FIVE questions in this section in that spaces provided.

16. A matatu left Kibwezi at 7.00 am and travelled towards Nairobi at an average speed of 60km/hr. A car left Nairobi at 9.00am and travelled towards Kibwezi at an average speed of 80km/hr. The distance between the two towns is 324km.

Find:

a) the time each vehicle arrive at their destination.

i) matatu (2 marks)

ii) car (2 marks)

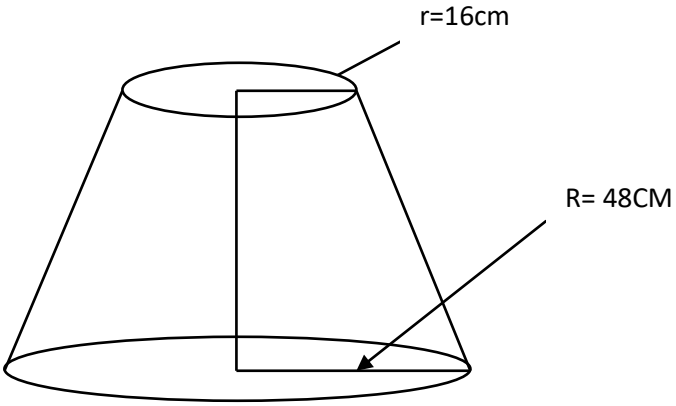
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b) i) the distance the matatu covered before the car started to move from Nairobi to Kibwezi. (1 mark)

ii) the time the two vehicles met on the way. (3 marks)

c) How far the car was from Kibwezi when they met. (2 marks)

17. The figure below represents a frustrum of a solid cone of base radius 48 cm and top radius 16cm. The height of the frustum is 21cm (Taking $\pi = {}^{22}/_{7}$) calculate:



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a) The height of the solid cone. (2 marks)

b) The volume of the solid frustum. (3 marks)

c) The total surface area of the frustrum. (5 marks)

18. Towns B is 102km on bearing of 112° from town A. Town C is 94km on a bearing of 062° from town B. Town D is 073° from town A and 336° from town C.

a) Using a scale of 1cm rep. 20km, draw a diagram to show the positions of towns A, B, C and D. (4 marks)

b) Using the diagrams in (a) above determine

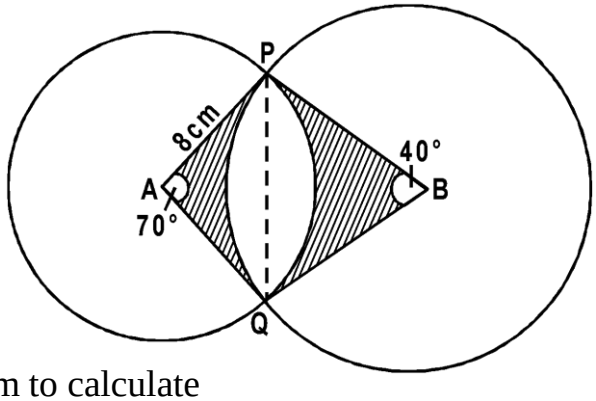
i) Bearing of town B from town D. (1 mark)

ii) Bearing of town A from town C. (1 mark)

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c) The distance AC and BD in km. (4 marks)

19. The figure below shows two circles, centre A and B which intersect at point P and Q. Angle PAQ = 70° and angle PBQ = 40° and PA = AQ = 8cm



Use the diagram to calculate

a) PQ correct to 2 decimal places. (2 marks)

b) PB correct to 2 decimal places. (2 marks)

c) Area of the minor segment of the circle whose centre is A. (2 marks)

d) Area of the shaded region. (4 marks)

20. A salesman sold 300 bags of maize to a retailer at Kshs .2000 each .He was given a commission of 3%.The salesman allowed a discount of 0.2% on the maize sold. This discount was deducted from his commission.

(a) Calculate

(i) The discount allowed (2mks)

(ii) The net commission the salesman got (3mks)

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(b)The retailer sold all the bags of maize at Ksh, 2400 each and paid Ksh 12000 for transport. Calculate the profit made by the retailer (3mks)

(c)In additions a value added tax (V.A.T)of 16 % was charged on the profit made by the retailer .Calculate the amount of tax collected. (2mks)

21. A line L passes through points (-2, 3) and (-1,6) and is perpendicular to a line P at (-1,6).
    a) Find the equation of L. (2 mks)

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b) Find the equation of P in the form ax + by = c, where a, b and c are constant. (2 mks)

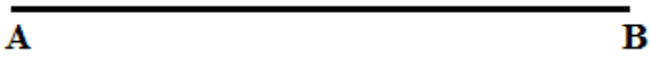
c) Given that another line Q is parallel to L and passes through point (1,2) find the x and y intercepts of Q. (3 mks)

d) Find the point of intersection of lines P and Q. (3 mks)

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22.(a) Using a ruler and a pair of compasses only, construct triangle ABC and ABD on either side of line AB below, such that;

$<DAB=<DBA=<ABC=<BAC=60^0$ (3mks)



(b)(i) Name the quadrilateral ADBC ..... (1mk)

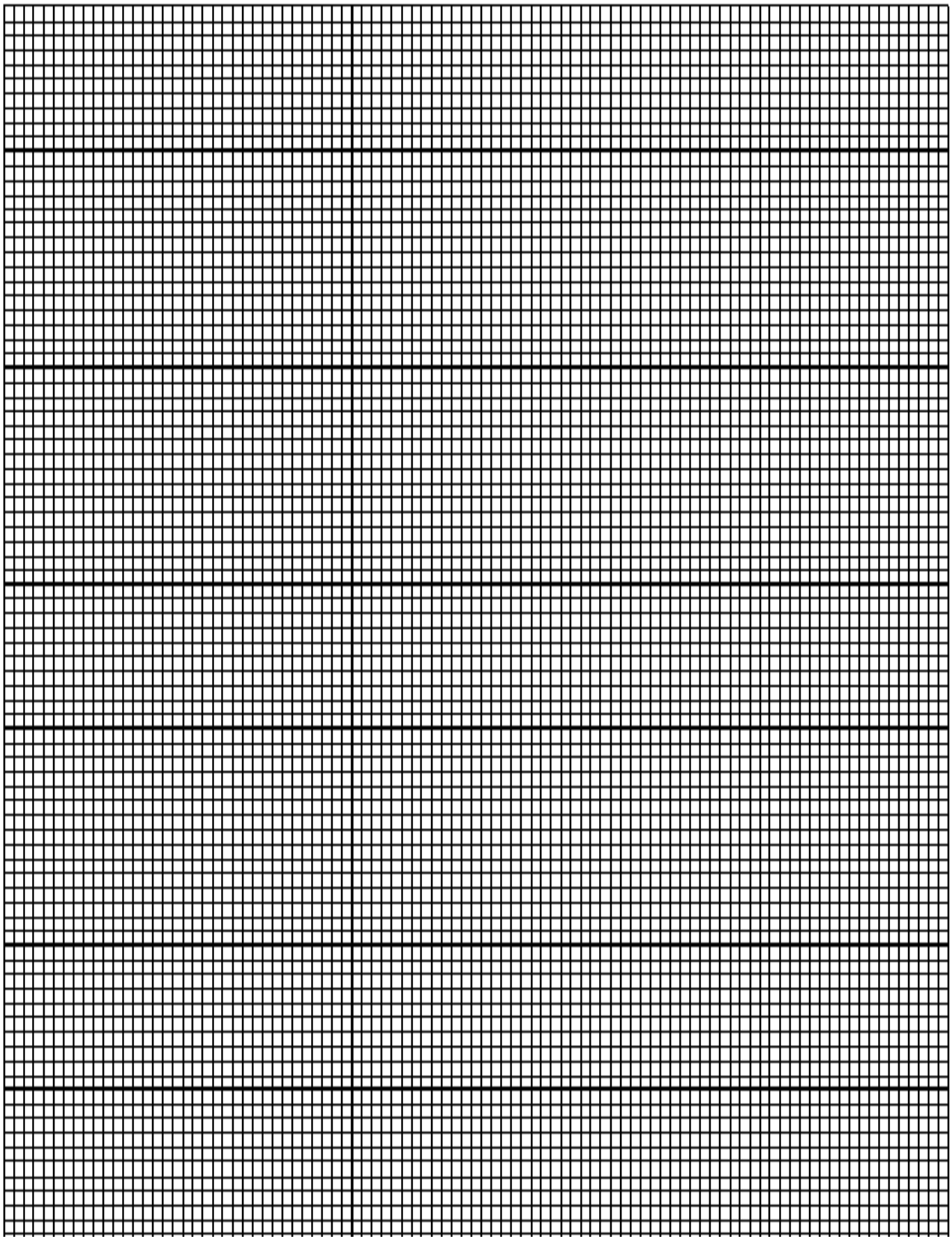
(ii)Construct a circle touching all the sides of the quadrilateral (3mks)

(d)Calculate, correct to one decimal place, the area of the region enclosed by the quadrilateral but outside the circle. (3mks)

23.a) On the Cartesian plane below, draw the quadrilateral PQRS with vertices.

P(4, 6), Q(6, 3), R(4, 4) and S(2, 3) (1 mark)

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b) Draw $P^1Q^1R^1S^1$ the image of PQRS under the transformation defined by the translation vector

Write down the coordinates of $P^1Q^1R^1S^1$. (2 marks)

c) $P^{11}Q^{11}R^{11}S^{11}$ is the image $P^1Q^1R^1S^1$ when reflected in the line y = 1. On the same plane, draw $P^{11}Q^{11}R^{11}S^{11}$ (2 marks)

d) Draw $P^{111}Q^{111}R^{111}S^{111}$ the image $P^{11}Q^{11}R^{11}S^{11}$ when reflected in the line y - x = 0 (2 marks)

e) Find by construction, the centre of the rotation the mps $P^{111}Q^{111}R^{111}S^{111}$ onto PQRS and hence determine the coordinates of the centre of the rotation and the angle of the rotation. (3 marks)

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NAME…….

INDEX NO……CLASS……SCH ……...

FORM 3 PHYSCIS MID-TERM 1 SERIES 2 EXAMS

FORM 3 TERM 1 TIME 2 HOURS

INSTRUCTION TO CANDIDATES

a) Write your name and index number in the spaces provided above

b) This paper consist of TWO sections A &B

c) Answer ALL the questions in section A and B in the spaces provided.

*d) This paper consists of **9** printed pages.*

e) ALL working MUST be clearly shown.

f) Mathematical tables and silent electronic calculators may be used

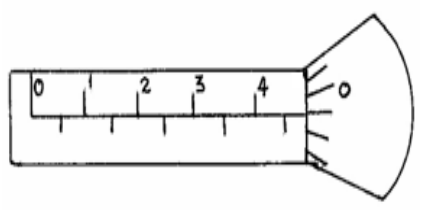
Take Acceleration due to gravity g=10m/s

FOR EXAMINERS USE ONLY

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1-12	25	
B	13	11	
	14	4	
	15	7	
	16	10	
	17	12	
	18	5	
	19	6	
	TOTAL SCORE	80	

SECTION A (25 MARKS)

1. The diagram below shows a micrometer screw gauge used by a student to measure the thickness of a wire. If it has a zero error of +0.06mm, what is the actual thickness of the wire? (2mks)



2. Give a reason why a thick glass bottle cracks when boiling water is suddenly poured inside it. (1mk)

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3. Other than temperature state **one** other factor that affects the surface tension of water. (1mk)

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4. State how heat losses by convection and radiation are minimized in a thermos flask. (2mks)

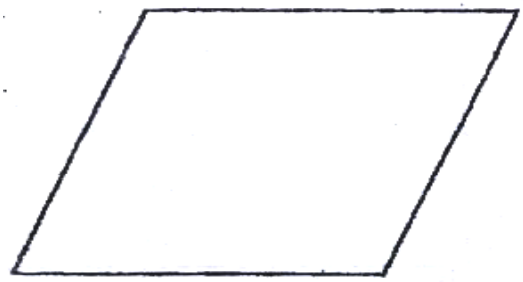
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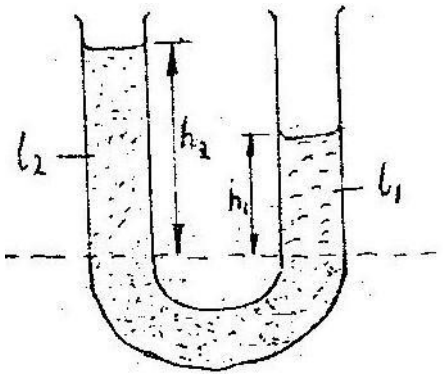
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5. Figure below shows a uniform cardboard in the shape of parallelogram



Locate the centre of gravity of the cardboard. (1mk)

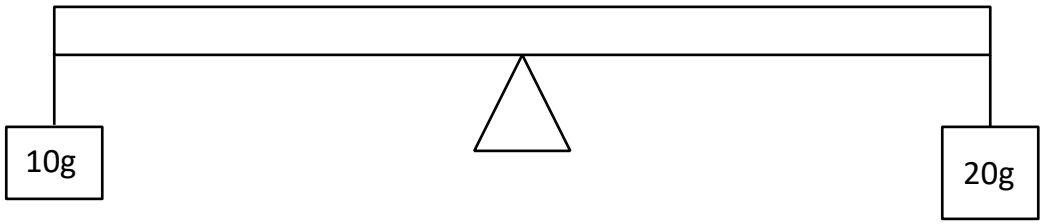
6. Figure below shows a U tube containing two liquids L_1 and L_2 of densities 1.8 gcm^{-3} and 0.8 gcm^{-3} respectively in equilibrium. Given that h_2 = 8 cm determine the value of h_1.(3mks)



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7. An oil drop of volume 0.2cm3 spreads on a water surface to form a patch of diameter 30cm. determine the diameter of an oil molecule. (3 Marks)

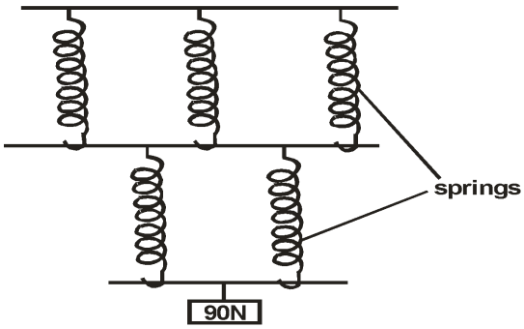
8. A uniform metre rule of negligible mass is balanced by suspending a 10g mass and a 20g mass on its ends as shown **below**.



Determine the position of the pivot. (3 marks)

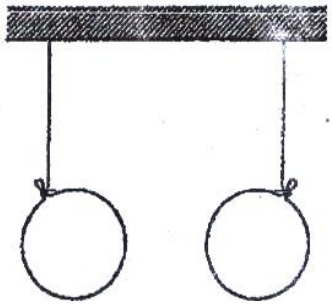
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9. The spiral springs shown in figure below are identical. Each spring has a spring constant k = 300N/m



Determine the total extension of the system (take the weight of the cross bars to be negligible) (3 mks)

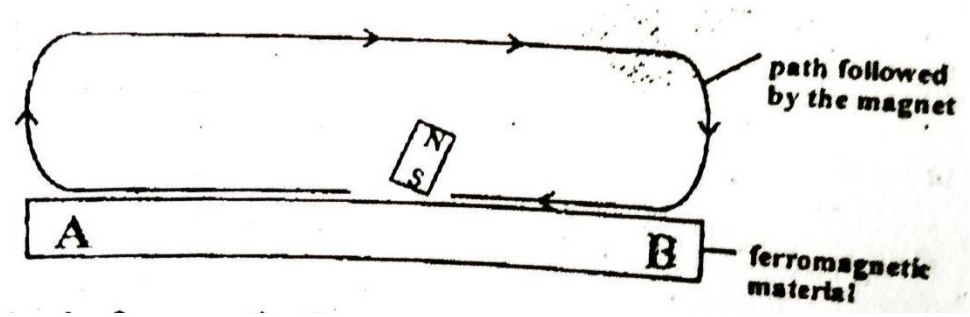
10. Figure below shows two inflated balloons hanging vertically on light threads.



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When a stream of air is blown in the space between the balloons, they are observed to move towards each other. Explain this observations (2mks)

11.The figure below shows a method of magnetization.



i. Name the method of magnetization. (1 mk)

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ii. Name the polarity acquired by end B. (1 mk)

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12.A car manufacturer wishes to increase the stability of acar he is designing. State two ways he can achieve this. (2 mks)

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SECTION B (55 MARKS)

13.a) State Bernoulli's principle. (1mk)

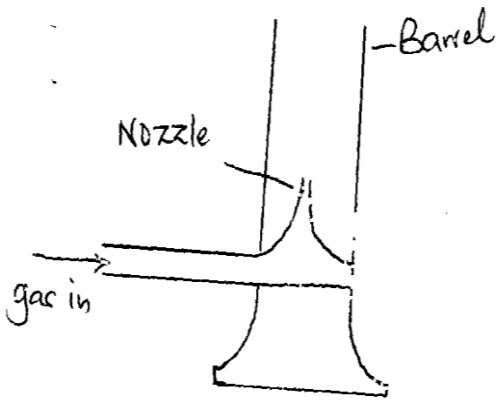
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b) The diagram below shows a Bunsen burner



i. Explain how the burner works (3mks)

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ii. A pipe of radius 6cm is connected to another pipe of radius 9cm.If water flows through the wider pipe at a velocity of 2m/s,calculate;

I. Volume of water leaving the wider pipe per second(π=3.142) (3mks)

II. Velocity of water in the small pipe (2mks)

c) Explain why it's dangerous to stand close to a busy highway (2mks)

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14.(a) State the basic law of charges. (1 mk)

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(b) State **one** uses of an electroscope. (1 mks)

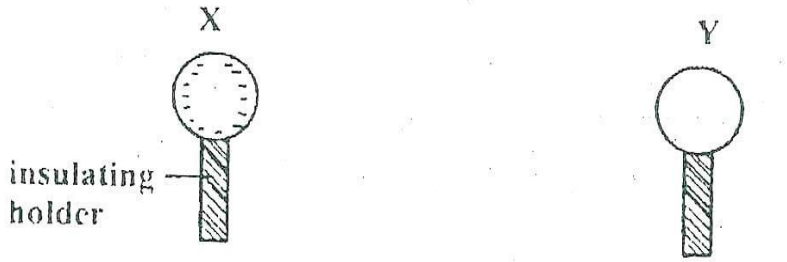
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(c) A negatively charged sphere X is brought up to an identical uncharged sphere Y. the spheres do not touch.



Sphere Y is earthed by touching it with a wire and then detached. Sphere X moved away from sphere Y.

i) What is the purpose of the insulating holder? (1 mk)

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ii) State the final charge on sphere Y. (1 mk)

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15.(a) State the difference between the principal focus of a convex mirror and that of the concave mirror. (1 mks)

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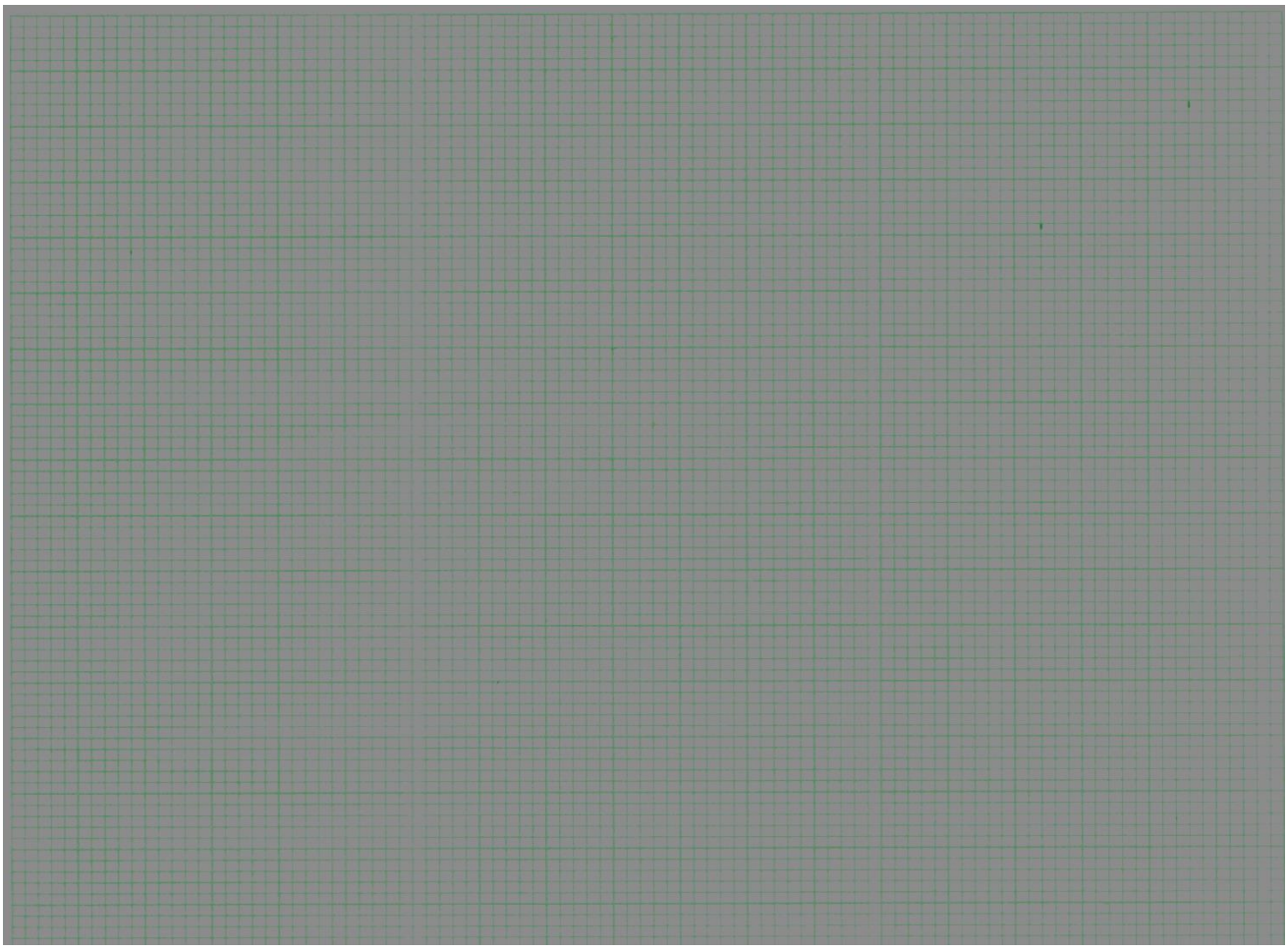
(b) An object of height 2cm is placed 60cm in front of a concave mirror of focal length 20cm.

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i) Locate by scale drawing, the image formed. What is the image distance? (4 mks)



ii) State one characteristics of the image. (1 mk)

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iii) Determine the magnification of the image. (1 mk)

16.a) The height of a mercury barometer at a particular place is 70cm. Given that the density of mercury is 13600kg/m3, determine;

i. The atmospheric pressure at the place in Pascal's. (3marks)

ii. The height of a water barometer at the same place (density of water =1 g/cm^3) (3marks)

iii. Give a reason why mercury is preferred as a barometric liquid. (1mk)

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b) Calculate the minimum pressure a block of dimensions 3cm×10cm×15cm and mass 12kg could exert on a horizontal surface. (3mks)

17.a) State Hooke's law. (1mk)

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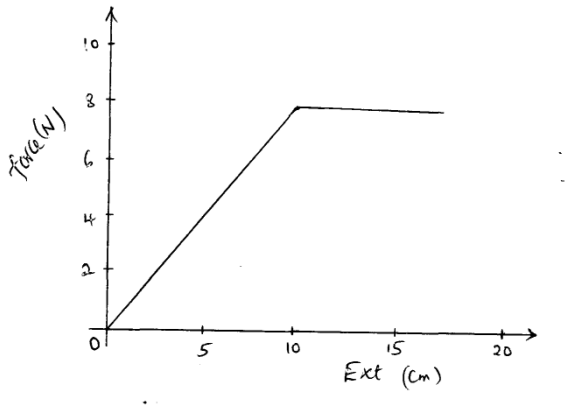
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b) An object of weight 20N attached at the end of a spring causes an extension of 0.5cm on the spring

i. Determine the spring constant (3mks)

ii. Determine the weight of an object that would cause an extension of 0.86m when attached at the end of the same spring. (2mks)

c) One end of a piece of rubber band was fixed on a rigid support and the other end pulled with a varying force. The graph below shows the relationship between force and extension for the rubber band.



Using the graph determine

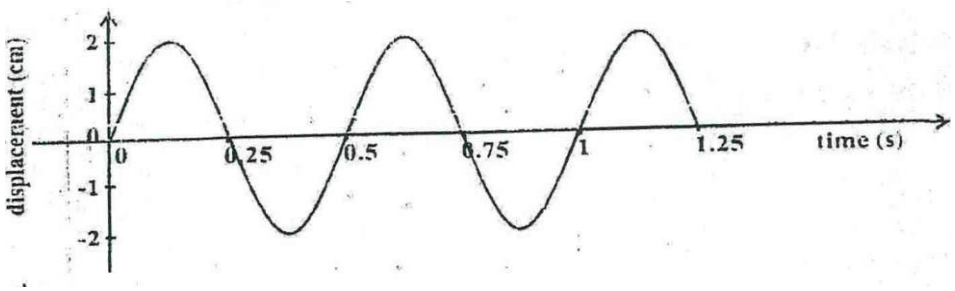
i) The stretching force at elastic limit (1mks)

ii) The elasticity constant of the rubber band (3mks)

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iii) Assuming two identical rubber bands were used instead of one and attached in series what would be the elasticity constant? (2mks)

18. The figure below shows how the displacement of a wave varies with time.



Determine the;

a) Amplitude (1 mk)

b) Frequency of the wave. (2 mks)

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c) Wavelength given that the velocity of the wave is 60cm/s. (2 mks)

19.a) Distinguish between primary and secondary cells. (1mks)

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b)i) Define polarization with reference to a simple cell. (1mk)

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ii) State how polarization can be overcome in simple cells. (1mk)

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c) A charge of 90 coulombs passes through a point in a circuit every one minute. Calculate the current through the point. (3marks)

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