

FORM 3 END-TERM 1 SERIES 2

EXAMS

For marking schemes, call/WhatsApp Mdm Mariam-0746711892



'an investment of knowledge pays'

For marking schemes, prefer calling Mdm Mariam:0746711892

Other available resources are;

📌 well summarised primary and secondary notes

📌 FI-F4 termly exams

📌 primary exams

📌 KCSE past papers

📌 KCPE past papers

📌 Mocks

📌 lesson plans

📌 schemes of work

Note: Exam questions are always free of charge

Marking scheme are not free

Setbooks summarised notes, questions
and vedios are available. Contact
Mdm. Mariam-0746711892



FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:.....

SCHOOOL:.....

SIGN:.....DATE:.....

ADM NO: STREAM.....

END-TERM EXAM

TERM ONE FORM THREE

AGRICULTURE PAPER 1

TIME: 2 HOURS

SECTION A: (30 MARKS)

Answer ALL questions in this section in the spaces provided.

1.Name two types of land tenure systems. (1mk)

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2.State four problems associated with land fragmentation in Kenya. (2mks)

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3. Give four advantages of individual owner operator tenure system as practiced in Kenya. (2mks)

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4. Give four methods of breaking seed dormancy. (2mks)

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5. State four disadvantages of organic mulch in crop production. (2mks)

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6. Give four practices carried out in a tree nursery. (2mks)

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7. State four reasons for staking tomatoes. (2mks)

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8. List four methods of treating water for use on the farm. (2 mks)

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9. Give two examples for each of the following categories of water pipes.

a) Metal pipes (1mk)

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b) Hose pipes (1mk)

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10. What is organic farming? (1mk)

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11. State four problems that may be brought about by hardpans in crop land. (2mks)



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12.State four information contained in a land title deed. (2mks)

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13. State four disadvantage of communal system of land tenure(2mks)

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14. State four factors that determine the depth of planting. (2 mks)

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15. List four aspects of rain.(2mks)

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16.State four human factors influencing agriculture.(2mks)

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SECTION B: (20 MARKS)

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

17. The
below
soil

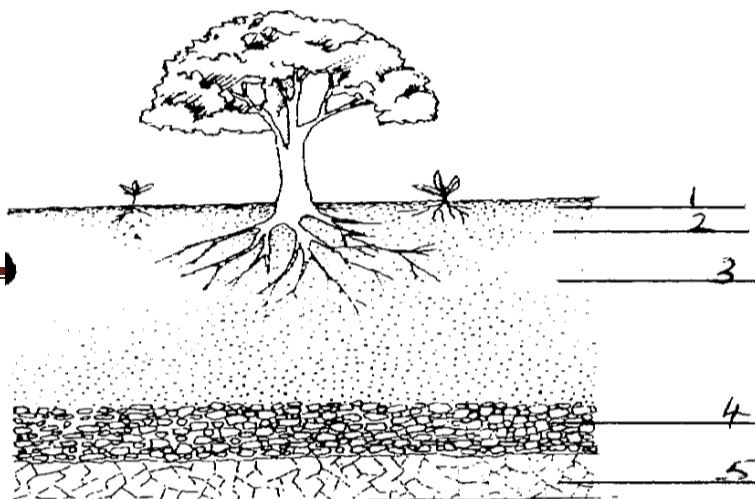


diagram
illustrates a
profile.

Study it carefully and answer the questions that follow

a) Name the layers represented by numbers 2,3,4, and 5.(4mks)

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3.....

4.....

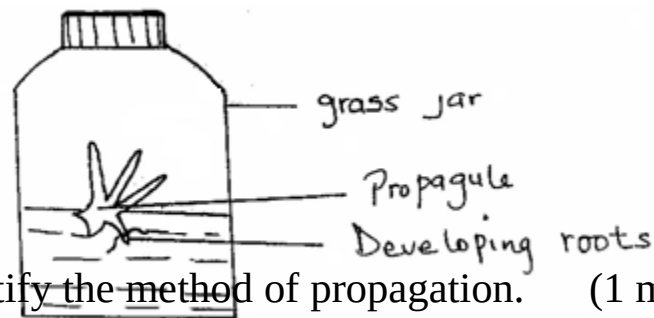
5.....

c) State **two** characteristics of the layer. (2mks)

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18.The diagram **below** illustrates a method of crop propagation.



(a) Identify the method of propagation. (1 mark)

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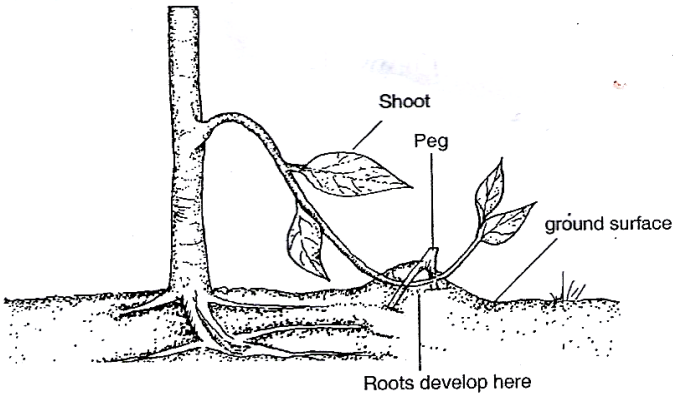
(b) Name a common crop propagated through the method. (1 mark)

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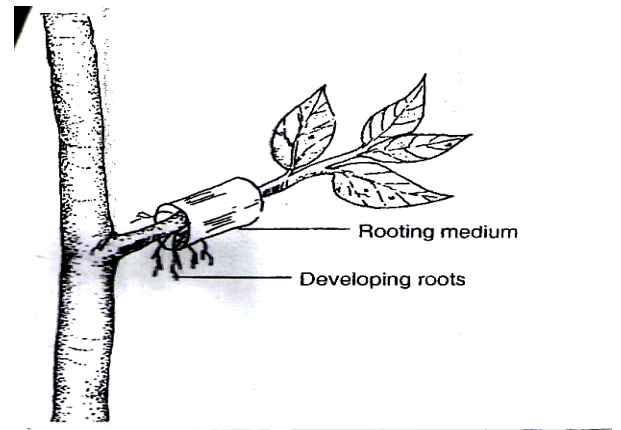
(c) Name **two** advantages of this method. (2 marks)

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19.The diagrams below illustrate methods of crop propagation. Study them carefully and answer the questions that follow



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K

(a) Name the types of layering shown above (1 mark)

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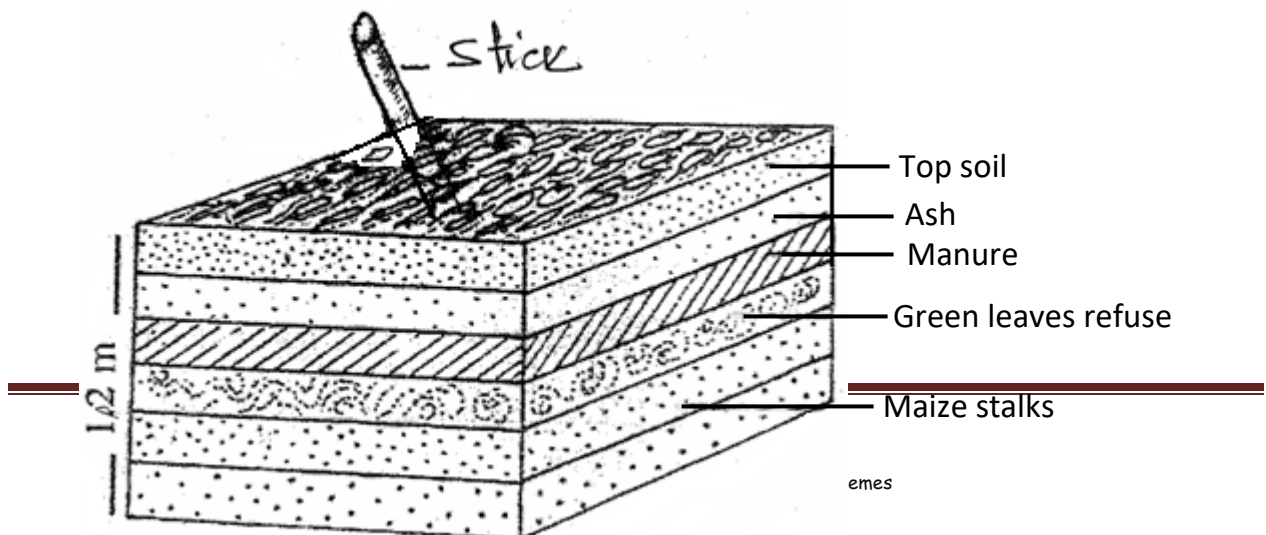
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b) State **one** method of budding (1mks)

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20. The diagram below shows preparation of organic manure.



(a) Which type of organic manure is being prepared above? (1 mark)

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(b) Give the importance of inclusion of the following layers.(4 marks)

(i) Ash

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(ii) Topsoil

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(iii) Manure

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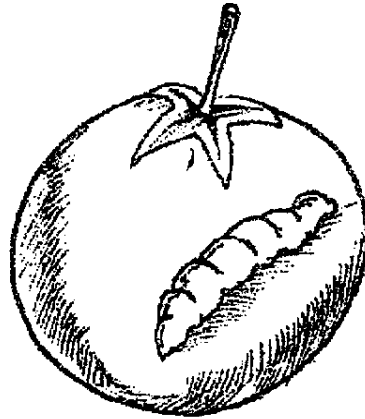
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(iv) Stick

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21. The diagram below shows a pest and the damaged crop. Study it and answer the questions that follow.



- (a) Identify the crop pest illustrated above.(1 mark)

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- (b) What damage does the pest cause to the crop?(1 mark)

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- (c) State two ways of controlling the pest. (1mark)

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SECTION C

Answer any two questions in this section in the spaces provided

22a) State and explain **five** ways through which soil loses its fertility.

(10 marks)

b) Describe **five** characteristics of Nitrogenous fertilizers. (5 marks)

c) Outline **five** methods used in application of inorganic fertilizers.

(5 marks)

23a) Outline the factors affecting rooting of cuttings. (5 marks)

b) State and explain human factors that influence Agricultural production. (10 marks)

c) Highlight the management practices carried out in a nursery. (5 marks)

24.) Explain the factors considered in choosing seed rates (8mks)

b) Describe the production of cabbages under the following sub headings

i) Nursery establishment and management (6 mks)

ii) Transplanting (6mks)

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FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:.....

SCHOOOL:.....

SIGN:.....**DATE:**.....

ADM NO:**STREAM:**.....

END-TERM EXAM

TERM ONE FORM THREE

AGRICULTURE PAPER 2

TIME: 2 HOURS

SECTION A: (30 MARKS)

Answer ALL questions in this section in the spaces provided.

1. List **four** farm structures that would assist in control of livestock parasites. (2mks)

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2. State **three** desirable characteristics to be considered when a heifer for a milk production. (3mks)

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3. Distinguish between interbreeding and out crossing in livestock production.(2mks)

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4. a) Mention **four** reasons why bees swarm.(2mks)

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b) State **two** methods to stock bee hives. (2mks)

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5. State **four** reasons for castrating male cattle. (2mks)

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6. Give **two** reasons for steaming up in dairy cattle management. (1mk)



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7. Give **two** reasons why honey harvesting should be discouraged at night. (1 mks)

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8. a) Distinguish between inbreeding and line breeding.(1mk)

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b) State any **three** importance of cross breeding. (1½mks)

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9. State any **four** factors that may lower the quality of honey.(2 marks)

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10. State **four** reasons for maintaining wheelbarrow in the farm.(2mks)

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11. List **one** tool used in tightening barbed wire when constructing a fence. (½mk)

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12. Name two types of bees.(2mks)

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13. State four factors determining the quality of honey,(2mks)

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14. Give two methods of castration. (2mks)

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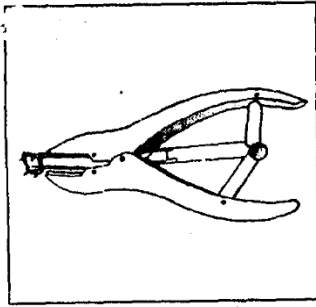
15. State four signs of parturition in a pig.(2mks)

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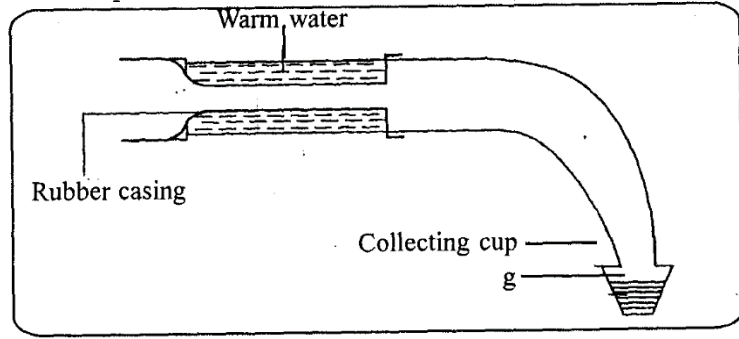
SECTION B: (20 MARKS)

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

16. Diagram X and Y illustrate livestock production. Study the illustration and answer the questions that follow.



X



Y

a). State **one** function of each tool .(2mks)

X

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Y

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b).What is the suitable name of the livestock production equipment Y?(1 mk)

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c) State **one** advantage of using the substance g collected in Y above.

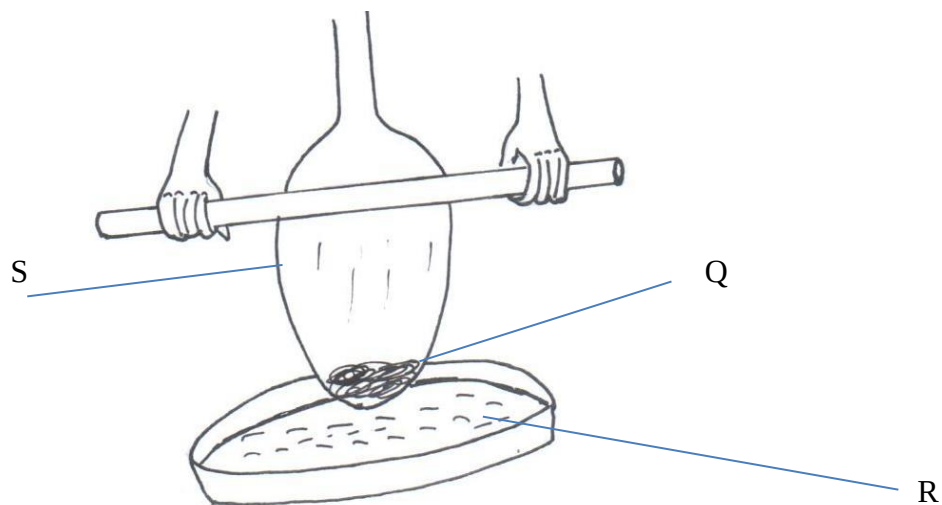
(1mk)

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17. Study the illustration of processing honey below and answer the question that follow.



(a) Name the part labeled. (2 marks)

Q

R

(b) State the function of part labeled **S**. (1 mark)

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(c) State **four** equipments used for harvesting honey (4 marks)

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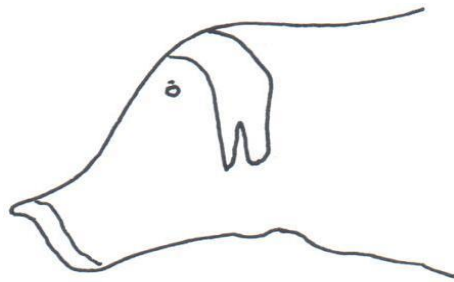
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18. The diagram below represents a method of livestock nurture management practice. Study it carefully and answer the questions beneath/below.



(a) Identify the management practice represented above.(1 mark)

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(b)Name the farm tool used to carry out the management practice.(1 mark)

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(c) State **one** major precautionary measure taken when carrying out the above management practice. (1 mark)



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(d) Name **four** livestock animals which the management practice is carried out.(2 marks)

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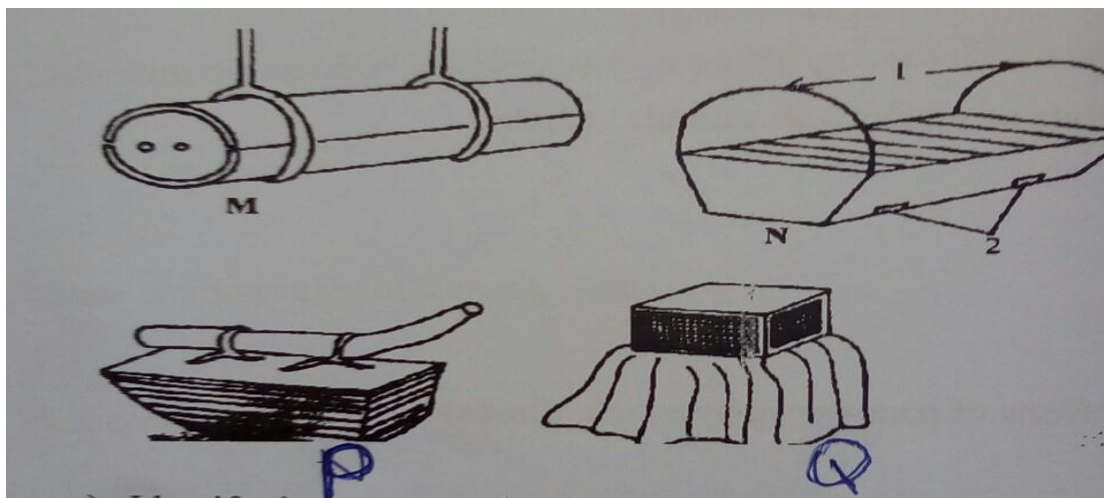
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19.The diagrams M, N, P, and Q show some structure used in apiculture.



a) Identify the structures labeled M, N, P, and Q. (2mks)

M –

N –.....

P –.....

Q –.....

b) State the uses of P and Q. (2mks)

P –

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Q –

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SECTION C

Answer any two questions in this section in the spaces provided

20(a) Outline **four** factors to consider when siting a calf pen.(4 marks)

(b) Name and describe the features of an ideal calf pen.(6 marks)

(c) What factors should a farmer consider when selecting materials for

Constructing dairy cattle shed. (10 marks)

21.a) Describe the reasons why bees may abscond from a beehive. (10 marks)

b) Describe the factors considered in siting farm structures on the farm.
(10 marks)

22.a) Describe the factors to consider when selecting livestock for breeding.
(10 marks)

b) Describe ten signs of ill health in livestock. (10 marks)

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FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:.....

SCHOOOL:.....

SIGN:.....**DATE:**.....

ADM NO:**STREAM:**.....

BIOLOGY PP1

FORM THREE

END OF FIRST TERM

TIME 2 HOURS

Answer all questions in the space provided.

1.Name the organelle that performs the following functions in a cell.(4marks)

a)Transport of cell secretions

b)Proteins synthesis.

c) Formation of ATP.

d) Fixation of carbon (IV) oxide.

2. a. Distinguish between taxonomy and taxon (2marks)

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b. Arachnids and crustaceans belong to the same phylum. Name the phylum (1mark)

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- a. State three characteristics that makes them to be classified in the phylum you stated in (b)above (3marks)

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- b. Give one structural feature that can be used to differentiate crustaceans and arachnids (1mark)

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3.In a certain experiment the field of view of the microscope was determined as 4 MM.If 16 cells were found to span across the diameter of the field of view of the microscope....

- a. Calculate the size of one cell in micrometers (3marks)

b) If 100 epidermal cells were viewed under magnification * 150, how many cells will be observed at magnification * 450 using the same slide? (2marks)

4. Guard cells are specialized epidermal cells.

a. State two structural features which suit them to their functions (2marks)

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b. Apart from gaseous exchange; give one other function of the stomata (1mark)

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5. State three ways by which a baby may acquire immunity (3marks)

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6. Distinguish between residual capacity and vital capacity (2marks)

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7. Suggest the most suitable biological tool for collecting

a. Ants from a tree trunk (1mark)

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b. Grasshoppers from grassland (1mark)



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8. a.State the functions of the condenser in a light microscope.(1mark)

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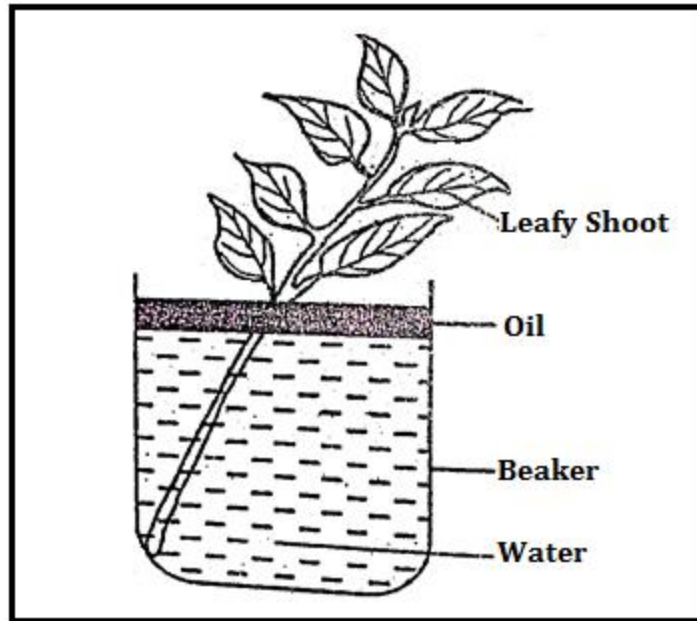
b.Why is it not likely to use an electron microscope in a school laboratory? (3marks)

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9. Explain why plant cells do not burst when immersed in distilled water. (2marks)

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10. An experiment shown below was a set up to investigate a certain physiological processes in plants.



a. What process was been investigated? (1mark)

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b. What effect will the following have on the observation made in (a) above?

Í) Fanning the shoot (1mark)

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Íí) Removing all the leaves from the shoot (1mark)

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Íí) Placing the set up in the dark. (1mark)

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11.a) State the role of light in the process of photosynthesis (2marks)

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b) Name the product of the dark stage in photosynthesis (1mark)

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c) State two minerals elements that are necessary in synthesis of the chlorophyll (2marks)

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12. a) In an investigation, the pancreatic duct of a mammal was blocked, it was found that blood sugar regulation remains normal while food digestion was impaired. Explain these observations (3marks)

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b) State the functions of the bile juice in digestion (3marks)

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c) State the role of the tongue in mammalian digestion (2marks)

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d) The action of ptyalin stops at the mouth. Explain (2marks)

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13. Give reasons for each of the following ;

a) Constant body temperature maintained in mammals (2marks)

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b) Effects of low blood sugar in the body (2marks)

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14. People can die when they inhale gases from burning charcoal in a poorly ventilated room. Explain (3marks)



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15. a) Name the compound found in the root nodule of the leguminous plants(1mark)

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b) State the association of the bacteria named in (a) above (1mark)

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16.Name the features that increases the surface area of the mammalian small intestine (3marks)

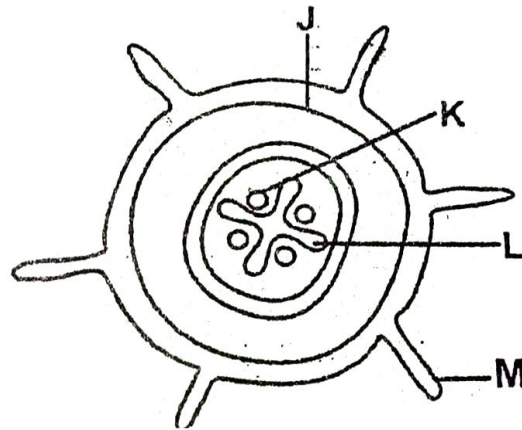
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17. The diagram below represents a transverse section of a plant organ



a) From which plant organ was the section obtained ? (1mark)

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b) Give reason for your answers in (a) above (2marks)

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c) Name the part labelled J, K and L (3marks)

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d) State the functions of the part labelled M (4marks)

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18. State two ways of preventing malaria (3marks)

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19. Name the stage in meiosis where chromosome number is reduced by a half. (1mark)

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20. Name;

a) The protein secreted by the blood platelets necessary for blood clotting (1mark)

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b) The vitamin involved in blood clotting (1mark)

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21. State two ways in which the tracheal system in an insect is adapted for gaseous exchange (2marks)

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22. What are the importance of reproduction? (2marks)

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FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:.....

SCHOOOL:.....

SIGN:.....**DATE:**.....

ADM NO:**STREAM:**.....

FORM 3

BIOLOGY

PAPER 2

TIME 2HOURS

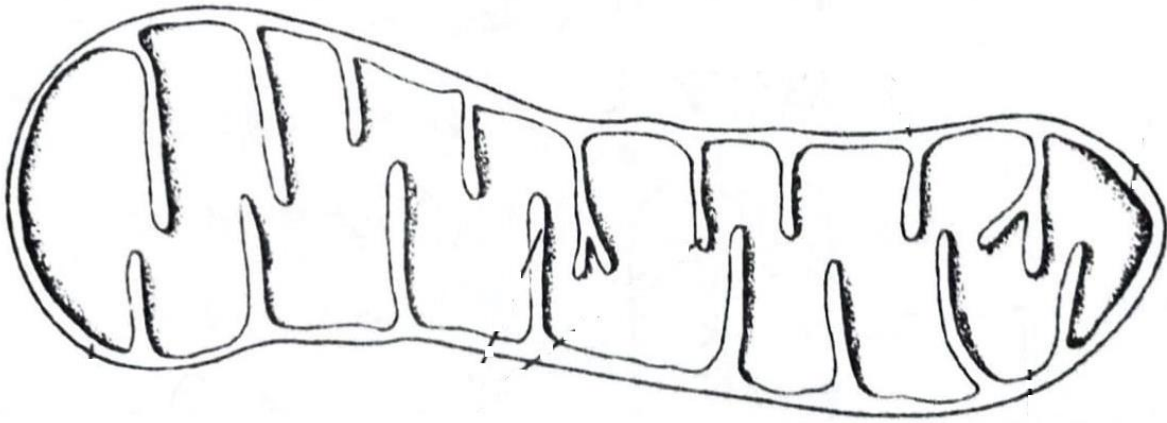
INSTRUCTIONS TO CANDIDATE

1. Write your name, Admission and Class
2. This paper consists of Two sections; Section A and B
3. Answer All questions in section A in the spaces provided
4. In section B answer question (6) compulsory and either question 7 or 8

SECTION A (40 MARKS)

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

1. The diagram below shows an organelle that is found in most cells.
Study it and answer the questions that follow



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

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(ii) State the function of the organelle in (a) (i) above (1mk)

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b. (i) Give the full name of the major chemical compound that is found in the organelle (1mk)

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(ii) Identify the gas that is required in order to form the compound you have stated in (b) (i) above (1mk)

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c) Give the name of the structure labeled H and state its function (2mks)

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d) (i) In which cells between spermatozoa or ova would you expect to find a high number of the organelle named in (a) (i) above? (1mk)

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

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2. (a) Name the gaseous exchange structure in the following organisms

(i) Amoeba (1mk)

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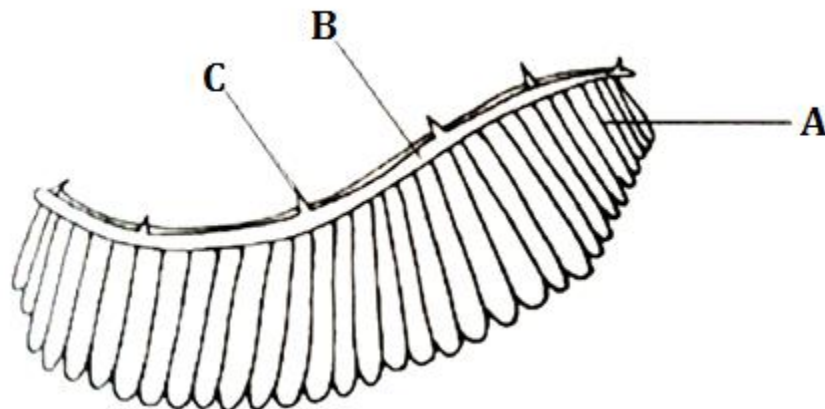
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(ii) Grasshopper (1mk)

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(b) The diagram below illustrates the structure of a gill from a bony fish



(i) Name the parts labeled A, B, and C (3mks)

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(ii) State the function of the part labeled C (1mk)

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(iii) How is part A adapted to carry out its functions (2mk)

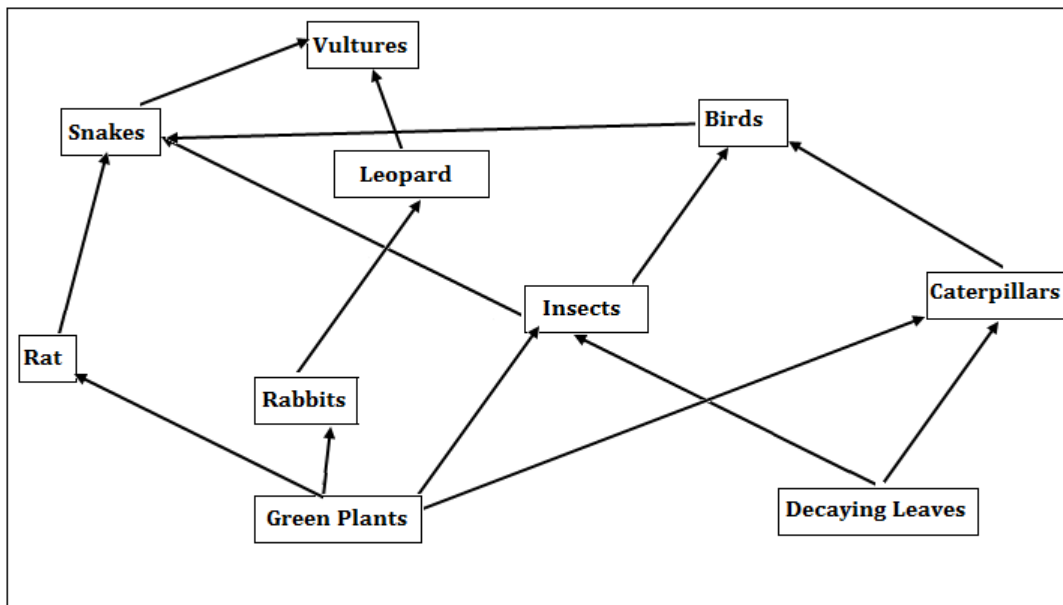
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3. Study the illustration below



a. Identify the ecosystem (1mk)

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b. (i) Which organism has the least biomass in the food web? (1mk)

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(ii) Explain your answer in (b) (i) above (1mk)

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c) Name the tropic level occupied by the following organisms

(i) Insects (1mk)

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(ii) Leopards

(1mk)

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d) Construct a food chain in which the vulture is a quaternary consumer
(1mk)

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e) (i) Name one group of organism not shown in the food web but play
an important role in the ecosystem (1mk)

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(ii) What is the role of the organism you named in (d) (i) above (1mk)

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4. During a biology practical lessons, the teacher provided students
with the following apparatus.

-A pooter

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-A scalpel

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-Specimen bottle

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-A pair of forceps

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-Sweep net

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-Chloroform

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(a) Give the precautions the biology teacher gave the student before the practical when collection of specimen begun (3mks)

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(b) What was the function of the following apparatus?

(i) Pooter (1mk)

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(ii) Sweep net (1mk)

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(iii) Chloroform (1mk)

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(b) Other than observation, name other two scientific skills
developed by studying biology (2mks)

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5. Complete the table below by placing the organism, tick, shrimp, millipede, praying mantis, tsetsefly, crab and spider in the right class and giving a reason in each case (8mks)

Class	Organisms	Reasons
Diplopoda		
Insecta		
Crustacea		

Arachnida		
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SECTION B

Answer question 6 (compulsory) and either question 7 or 8

- 6.** An experiment was carried out to investigate the effect of temperature on the rate of a reaction catalysed by salivary amylase. The Ph was slightly alkaline. The results are shown in the table below

Temperature	5	10	20	25	30	35	38	45	50
Rate of reaction	0.3	0.5	1.25	2.0	3.5	4.8	4.8	2.5	0.8

- a) On a grid draw a graph of rate reaction against temperature (6mks)

PROVIDE A GRAPH PAPER

- b) What is the optimum temperature of the enzyme (1mk)

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c) At what temperature was the rate of the reaction 1.4 (2mks)

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d) Account for the shape of the graph between
(i) 5°C and 35° C (2mks)

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(ii) 38° C and 50° C (3mks)

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e) How is the hydrochloric acid from the stomach neutralized and
where does this occur (2mks)

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f) Name one digestive enzyme in humans that works best in acidic conditions (1mk)

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g) Apart from temperature and pH name other 3 factors that affect enzyme controlled reactions (3mks)

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7. (a) Describe the adaptation of hydrophytes to their photosynthetic function (10mks)

(b) Explain how mammalian ileum is adapted to perform its function

8. Explain how seeds and fruits are adapted to the various methods of dispersal (20mks)

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FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: DATE:

ADM NO: STREAM.....

FORM 3

BIOLOGY

PAPER 231/3 PRACTICAL

TIME $1\frac{3}{4}$ HOURS

INSTRUCTIONS TO CANDIDATES

Answer ALL the questions in the spaces provided.

1. You are provided with

Spécimen X

Solution Y

Solution Z

- a) Examine the outer and inner leaves then record your observations (4mks)

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- b) Using a scalpel, cut and measure 6strips of 3cm length of the specimen X. Place 3 strips into a solution labeled Y, another 3 strips into a solution labeled Z. The experimental set up is allowed to stand for 20 minutes.

- i) What observations would be made after 20 minutes when the strips are touched (2mks)

Strips in solution Y

Strips in solution Z

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ii) Account for the observations recorded in (b) (i) above (4mks)

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2. You are provided with actual specimens of plant parts Q and K
a)(i) Using external features only identify the part of the plants (2mks)

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(ii) Give three reasons for your answer in (a) (i) above (3mks)

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- b) With reasons state the class to which the plants from which the specimens were obtained belong (4mks)

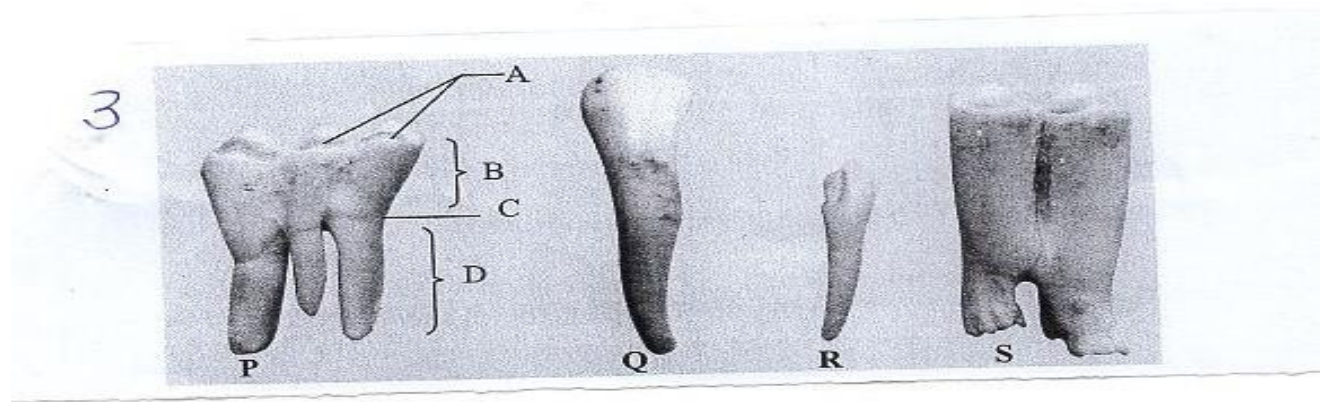
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- c) State two observable features that adapt specimen Q for gaseous exchange (2mks)

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- d) Using the dichotomous key provided, indentify the identity of the specimens Q and K in each case show the sequence; the steps in the key that you followed to arrive at the identity. (4mks)

1. (a) Leaf parallel veined.....go to 2
 (b) Leaf net veined go to 4
 2. (a) Leaf purple in colour.....Tradescantia spp
 (b) Leaf green in colour go to 3
 3. (a) Leaf with thorns on margin.....Kalanchoe spp
 (b) Leaf smooth on the margin.....Zea mays
 4. (a) Leaf sample.....go to 5
 (b) Leaf compound.....go to 8
 5. (a) Leaf margin entire go to 6
 (b) Leaf margin serrated.....Habiscus
 6. (a) Leaf texture rough.....go to 7
 (b) Leaf texture smooth.....Brassica spp
 7. (a) Leaf blade Lanceolate.....Solanum spp
 (b) Leaf blade broad.....Lantana camara
3. The photography below shows four specimens labeled P, Q, R and S, which were obtained from the same animal. Examine them



a) With reasons identify P and Q (4mks)

P-

Reason-

.....

Q-

Reason-

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b) Based on their structure, suggest the functions of specimens P and Q (2mks)

P-

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Q-

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c) In specimen P, name the four parts labeled A to D (4mks)

A

B

C

D

d) Using observable features, state the differences between R and S (3mks)

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e) Explain how specimen S is adapted for its functions (2mks)

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FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: **DATE:**

ADM NO: **STREAM:**.....

565/1

FORM THREE

BUSINESS STUDIES PAPER 1

TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES

- Write your name admission number and class in the spaces provided.
- Answer all questions in the spaces provided.

1. State **four** reasons why land is considered a prime factor of
production. (4mrks)

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2. Outline **four** measures being used by the government to control high rate of unemployment in Kenya. (4mrks)

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3. Highlight **four** reasons why the owner of a small business enterprise would prefer to advertise his goods using posters (4mrks)

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4. State **four** challenges that a business with no plan will encounter in its operations. (4mrks)

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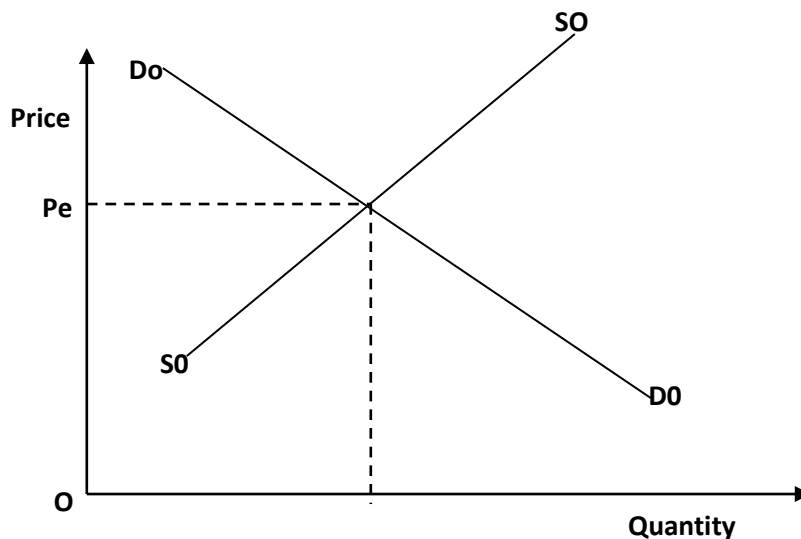
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5. The diagram shows equilibrium price and quantity



Draw a new demand curve on the diagram above showing a decrease in demand and the

Effect on (4mks)

(i) Equilibrium price

(ii) Equilibrium quantity

(iii) Equilibrium point

6. Mention **four** roles played by intermediaries in the chain of distribution (4mks)

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7. Give **four** factors that may determine the amount of premium payable in life assurance (4mks)

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8. Outline **four** features of oligopoly (4mks)

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9. Mention **four** pre requisites of transport (4mks)

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10. State **four** principles that govern the operation of cooperative societies in Kenya. (4 marks)

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11. Outline four criteria used in determining the size of the firm. (4 mks)

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12. Highlight four problems encountered in measuring national income using the output approach method. (4 mks)

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13. Outline four reasons why there is need for ethical practices in business. (4 mks)

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14. Outline four roles played by the stock exchange market as a market for securities. (4 mk)

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15. Give **four** malpractices against which consumers may need protection. (4 marks)

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16. Outline **four** circumstances under which gaps in the market may be identified. (4 marks)

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17. State **three** injections into the circular flow of income. (3 marks)

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18. Outline **four** reasons why a cheque may be dishonored .(4 marks)

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19. Highlight **four** measures which a firm may take to improve its human resource productivity. (4 mark)

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20. Outline **four** circumstances under which verbal communication may be used. (4marks)

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21. State **four** essentials for a warehous (4 marks)

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22. State **four** types of internal economies of scale to a firm. (4 marks)

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23. Highlight four reasons for making choices between competing wants. (4mks)

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24. State four advantages of using credit cards as a means of payment. {4 marks}

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25. Indicate in the table below the office machine used to perform the following functions. (5 marks)

	Function	Machine
a.	Folding documents, placing them in envelopes and sealing the envelopes.	
b.	Making short hand dictations and recording information on tapes.	
c.	Posting information to ledgers and preparation of pay rolls.	
d.	For trimming documents into required shapes and sizes.	
e.	Used to destroy unwanted papers	

FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: **DATE:**

ADM NO: **STREAM**.....

BUSINESS STUDIES

FORM 3

PAPER 2

END TERM 1

TIME: 2 HRS 30 MINUTES

INSTRUCTIONS: Answer any five questions

1. (a) Explain **FIVE** types of unemployment (10 mks)

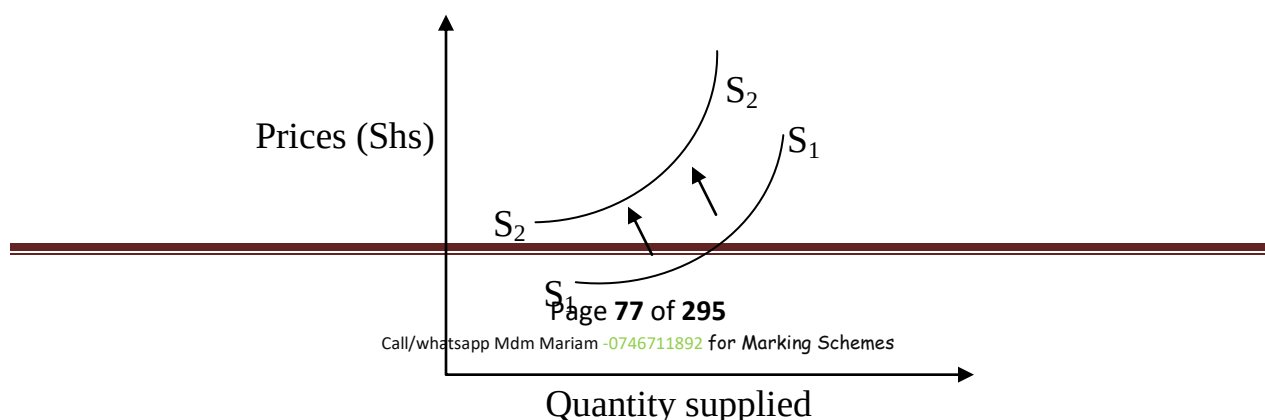
(b) Describe **FIVE** channels of distribution that may be followed by imported manufactured goods (10 mks)

2. a) Explain **five** ways in which the government may encourage delocalization of firms. (10 marks)

b) In the recent past, many small businesses in Kenya have expanded and grown into large enterprises. Explain **five** causes of business success in Kenya. (10 marks)

3. a) The diagram below shows a shift of the supply curve of a commodity from S_1S_1 to S_2S_2 . Explain **five** factors that would have caused the shift.

(10 marks)



b) Ramji operates a large hardware business in a town in Kenya. Apart from motor vehicle insurance policies, highlight giving reasons, **five** insurance policies that may be beneficial for this business. (10 marks)

4. (a) Explain **five** limitations of using posters as a medium of
product promotion (10mks)

(b) Explain **five** circumstances under which a partnership could be dissolved (10mks)

5. a) Outline **five** differences between land and labour as a factor of production. (10 marks)

b) Outline **five** uses of National income statistics to a country. (10 marks)

6. (a) Explain **five** factors that a business may consider when choosing an office layout. (10 marks)

(b) Explain five effects of a declining population to an economy. (10 mks)

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FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: **DATE:**



ADM NO: STREAM.....

FORM 3

CHEMISTRY PAPER 1

END TERM ONE

TIME: 2 HOURS

ANSWER ALL QUESTIONS.

1. Name any two pieces of apparatus used to measure volumes of liquid in a chemistry laboratory. (2mks)

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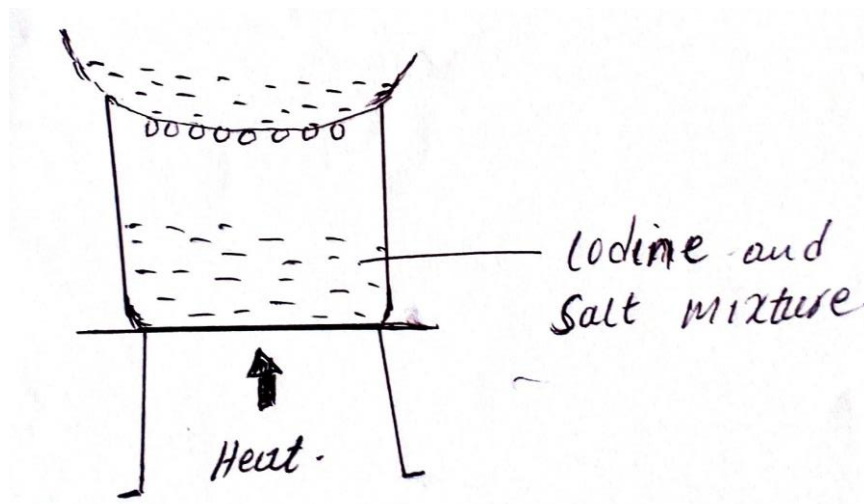
- 2.(a) Define the term saturated solution as used in chemistry. (1mk)

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(b) The set – up below was used for separating a certain mixture.



(i) Identify the method of separation showing above. (1 mk)

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(ii) State the observation made. (1mk)

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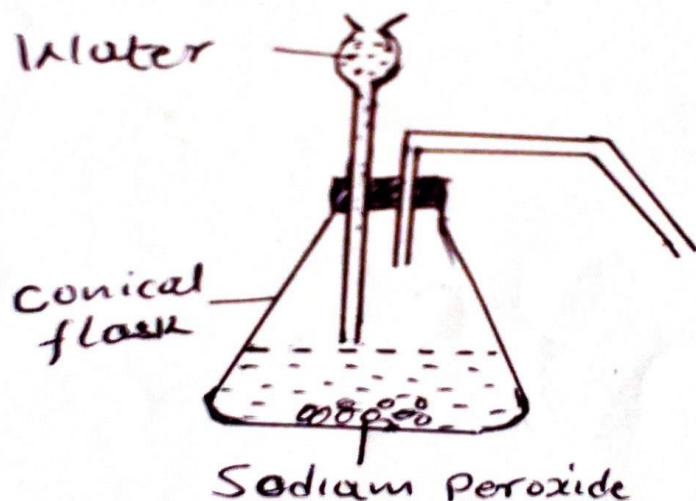
3. The table below shows Phvalue of some solutions used by form one learners in a practical lesson.

Solution	F	A	B	C	D
pH	8.5	11.0	6	2	14

a) Which solution is likely to be : (3mks)

- (i) Wood ash.....
- (ii) Hydrochloric acid
- (iii) Sodium hydroxide

4. The set- up below was used by a form one student for preparation



of Oxygen gas in the laboratory. Use it to answer the question that follow.

a) Complete the set –up. (2mks)

b) The student found that there was No gas collected even with effervescence in the conical flask.

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c) Explain the mistake made in the set-up. (2mks)

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d) Write an equation for the reaction that took place in the conical flask. (1mk)

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5. (a) State a confirmatory test for hydrogen. (1mk)

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.....

(b) State three physical properties of hydrogen (3mks)

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6. The electron arrangement of Ions M^{3+} and N^{2-} are 2:8 and 2.8.8 respectively.

a) Write the electron arrangement of elements M and N. (1mk)

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.....

.....

b) Write the formula of the compound that would be formed between element M and N. (2mks)

.....

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7. Given copper (ii) Oxide, distilled water dilute Nitric (v) acid and sodium carbonate, describe how one can prepare a solid sample of copper (ii) carbonate. (3mks)

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8. (a) State Graham's law of diffusion (1mk)

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(b) 200cm^3 of methane diffused through a porous pot in 40 secs.

Calculate the time taken for the same value of hydrogen chloride gas to diffuse under the same conditions C H=1, C=12, Cl=35.5 (3mks)

9. Calcium oxide is commonly used to dry ammonia gas. Using an equation, explain why concentrated sulphuric (VI) acid cannot be used to dry ammonia gas. (2mks)

10. Ammonium nitrite was heated as shown in the diagram below.

a) Identify gas A. (1mks)

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.....

b) State and explain the precaution that must be taken before heating is stopped. (2mks)

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11. The table below shows the first ionization energies of element B and C.

Element	Ionization energy in KJmol^{-1}
B	494
C	736

What do these values suggest about the reactivity of B compared to that of C? Explain. (2mks)

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12. Both diamond and graphite have giant atomic structures. Explain why diamond is hard while graphite is soft. (3mks)

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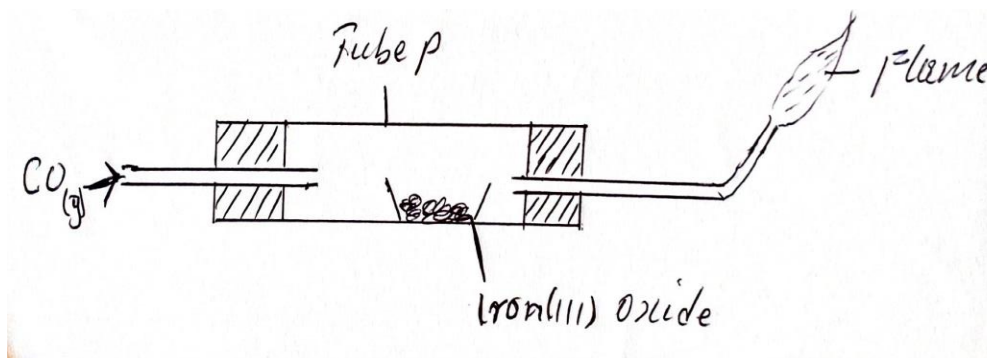
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13. State why high temperature is required for Nitrogen to react with Oxygen. (1mk)

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14. Carbon Monoxide gas was passed over heated Iron (III) Oxide as shown in the diagram below



a) Give and explain the observation made in tube P. (2mks)

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.....

b) Write the equation for the reaction which takes place in tube P. (2mks)

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.....

c) Identify an oxidizing species. (1mk)

.....
.....

15. Carbon dioxide can be dissolved in water to make our oxide solution.

a) What is meant by an acidic solution? (1mk)

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b) An aqueous lead (II) Nitrate reacts with the acidic solution to form a precipitate. Write an ionic equation for the reaction. (2mks)

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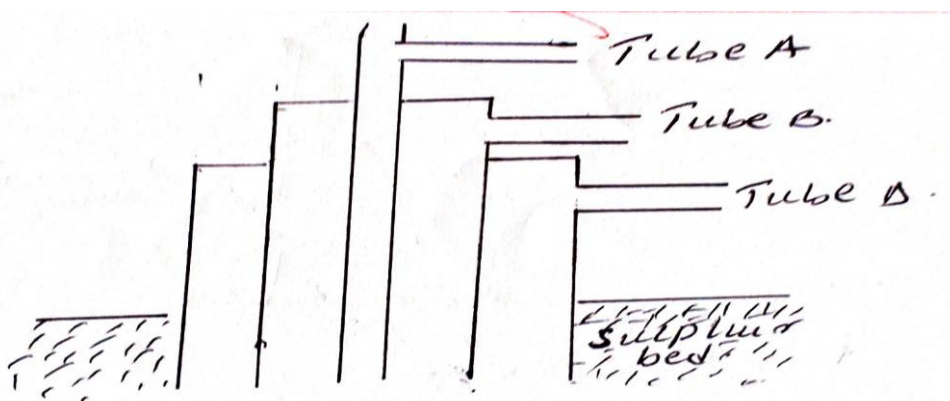
16. a) Define the term allotropy? (1mk)

.....
.....
.....

b Name two allotropes of sulphur. (2mks)

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.....
.....

c) The diagram below represents the extraction of sulphur by frusch process.



(i) Name the substances that passes through
Tube B

.....
.....

Tube D

.....
.....

(ii) What is the purpose of the compressed air in this process?
(1mk)

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.....

17. Diamond and graphite are allotropes of carbon. In terms of structure and bonding explain the following.

a) Diamond is used in drilling hard rocks. (1mk)

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.....
.....

b) Graphite is used as a lubricant? (1mk)

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.....

18. (a) Copper metal is a conductor and not an electrolyte. Explain.

(2mks)

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(b) Lead metal and molten lead (ii) Iodine both conduct electricity.

Explain how each of the substances conducts electricity. (2mks)

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19. It is not appropriate to prepare copper sulphate using copper metal and dilute Sulphuric (VI) acid. Explain (2mks)

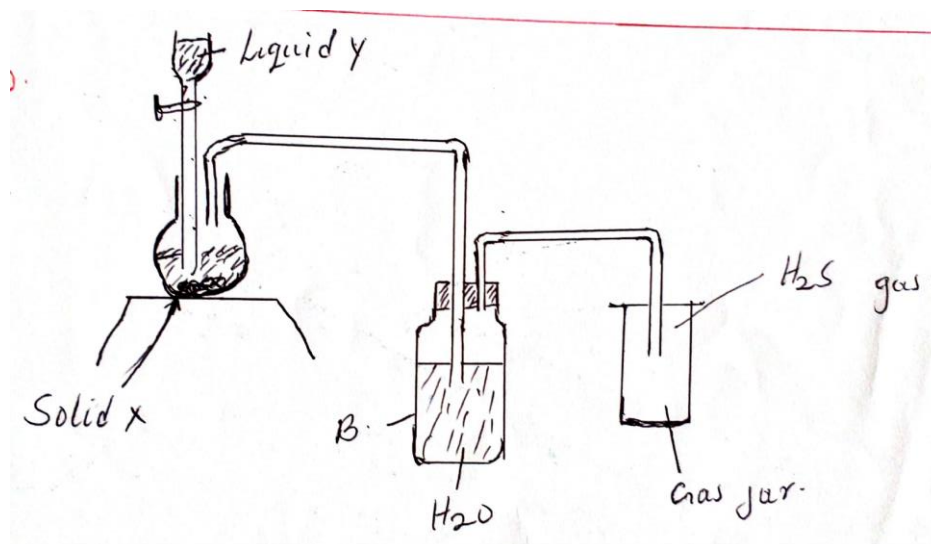
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20. The following diagram represents the apparatus used to prepare hydrogen Sulphide gas study it and answers the questions that follows.



a) Name:

(i) Solid X

.....

.....

(ii) Liquid y

.....

.....

b) What is the role of water in the compartment B? (1mk)

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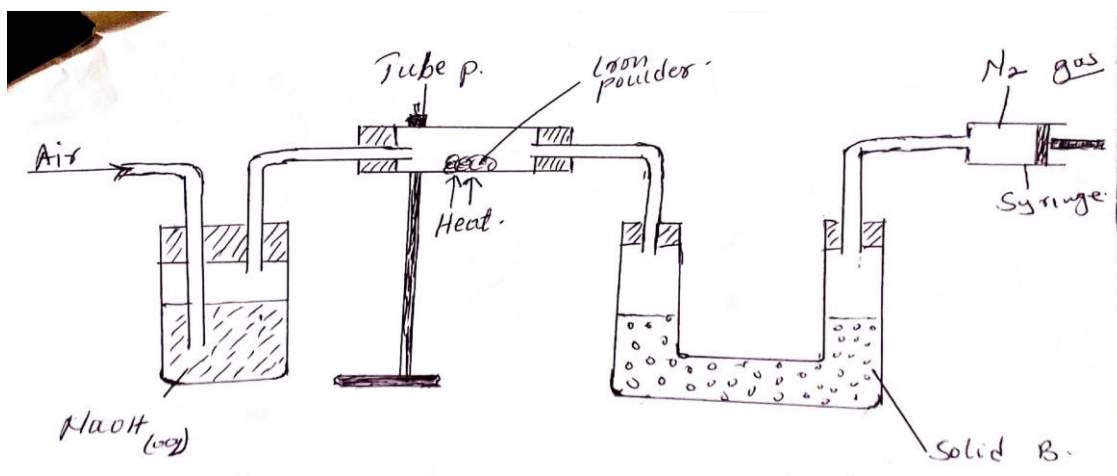
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c) Write the chemical equation for the reaction leading to production of hydrogen sulphids (2mks)

.....

.....

21. The diagram below represents a set up that was used to obtain dry Nitrogen from air.



(i) Name solid B. (1mk)

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.....

(ii) What is the purpose of sodium hydroxide (1mk)

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.....

(iii) Write a chemical equation for the reaction which took place in tube P. (2mks)

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(iv) Give the name of one impurity present in the Nitrogen gas obtained. (1mk)

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(v) Give one reason why liquid Nitrogen is used for storage of semen that is used for artificial insemination. (1mk)

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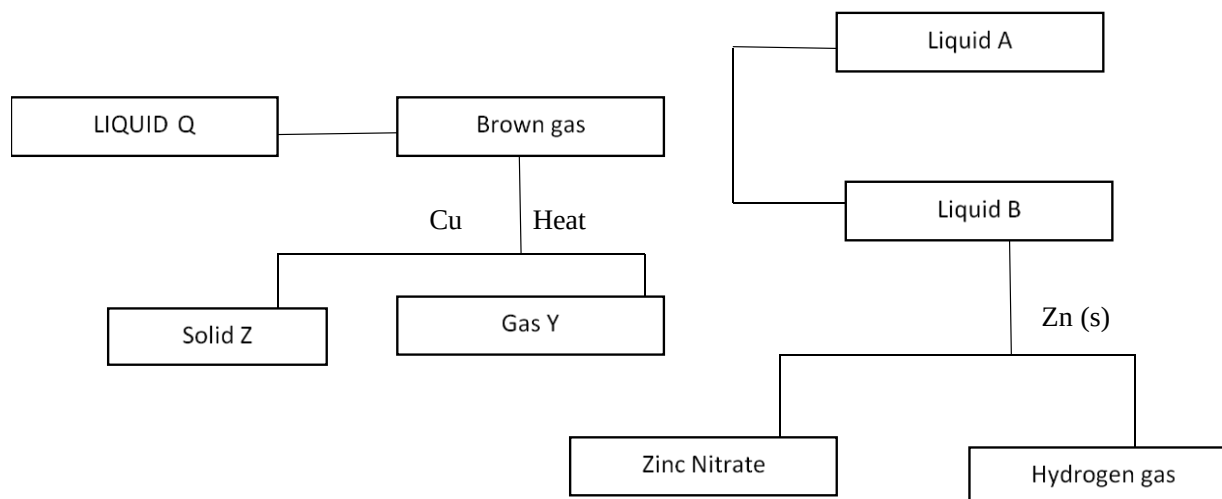
22. Given Nitrogen (I) Oxide and Oxygen, have common one differentiate the two? (2mks)

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23. Use the flow chart to answer the questions that follow.



a) Identify

(i) Liquid Q

.....

.....

(ii) Liquid A

.....

.....

(iii) Liquid B

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.....

(iv) Gas y

.....

.....

(v) Solid Z

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.....

b) Write an equation leading to the formation of

(i) Gas Y (1mk)

.....
.....

(ii) liquid a and liquid b (2mks)

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24. 0.53 of Sodium carbonate in 100cm^3 of solution. Determine the concentration of Sodium Carbonate in (Na=23, C=12, O=16

a) Grams per litre of solution. (2mks)

b) Moles per litre of solution. (2mks)

FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOL:

SIGN: **DATE:**

ADM NO: STREAM.....

END TERM EXAM FORM 3

CHEMISTRY PAPER 2

TIME: 2 HOURS

1. The grid below represents part of the periodic table. Study it carefully and answer the questions that follow. (Letters do not represent the answer symbols of the elements.)

			B			C			
		D			E				
F									
G									

a) Identify the family name to which element F and G belong. (1mks)

b) (i) Name the type of bond formed when c and F react (1mk)

.....
.....

(ii) Name two other type of chemical bond. (1mk)

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.....
.....

c) Element D reacts with oxygen to form an Oxide of D. Write down the formula of the oxide. (1mk)

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.....

d) What type of oxide is formed in (a) above. (1mk)

.....
.....

e) Element X is in period 3 and forms an ion with the formula X^{3-}

(i) Indicate its position on the grid. (1mk)

(ii) Write down the formula of its chloride. (1mk)

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.....

f) (i) State two physical properties that copper and graphite share in common in relation to their structure and bonding (2mks)

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(ii) State two physical properties of simple molecular substances (3mks)

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(iii) Give one example of an element with a simple molecular structure which is a solid at room temperature. (1mk)

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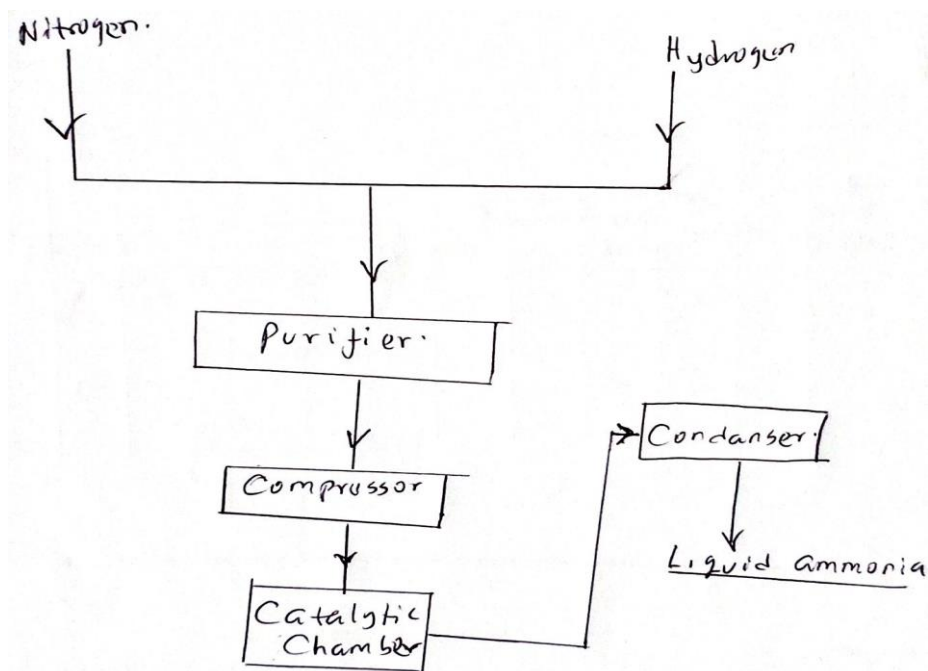
(iv) What is an Isotope? (1mk)

.....

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(v) An element Q consists of 3 Isotopes of mass 28, 29 and 30, and percentage abundance of 92:2, 4.7 and 3:1,



respectively. Determine the relative atomic mass of the element. (2mks)

2. The flow chart below shows the Haber process use it to answer the questions that follow

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(a) Write the equation involves in production of ammonia. (1mk)

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(b) Name three catalyst used in Haber process. (1mk)

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(c)What is the role of the purifier? (1mk)

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(d) State three function of the compressor. (1mk)

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(e)Suggest a suitable source of hydrogen in Haber process. (1mk)

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(f) State two uses of ammonia. (2mks)

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(g) Availability of energy is one factor considered when setting ammonia plant. State other two factors (3mks)

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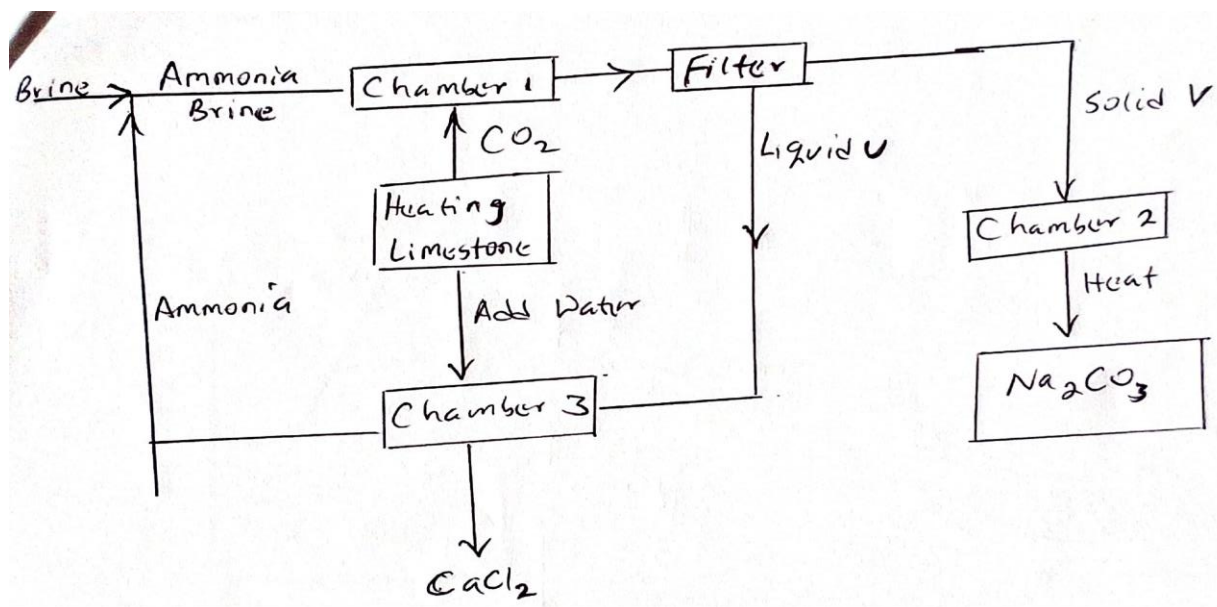
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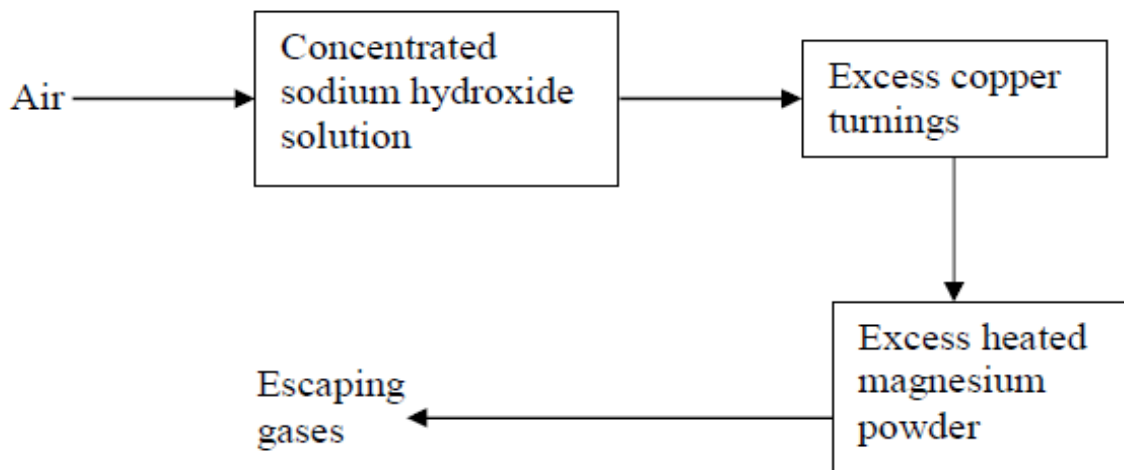
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(h) How many tonnes of nitric (iv) acid would be required to produce 24 tonnes of ammonium nitrate fertilizer (3mks)
(H=1, N=14, O=16)



3. Air was passed through several reagents as shown in the flow chart below.



a) Name the major components of air. (1mk)

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b) Write down an equation for the reaction which takes place in the chamber with

i) Concentrated sodium hydroxide (2mks)

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.....

ii) Excess heated copper turnings. (2mks)

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iii) Excess heated magnesium powder. (2mks)

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c) Name one gas which escapes from the chamber containing magnesium powder. Give a reason for your answer. (2mks)

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d) Name the substance that was eliminated by electrostatic precipitation. (1mk)

.....

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e) Name a reagent that can be used in place of concentrated sodium hydroxide. (1mk)

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f) Name substance C. (1mk)

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g) State 2 uses of gas C. (2mks)

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4. The results below were obtained in an experiment conducted by
form 3 students from Anestar Schools using magnesium

Mass of the crucible + lid = 19.52g

Mass of the crucible + lid+ magnesium ribbon = 20.36g

Mass of the crucible + lid + magnesium oxide= 20.92g

(i) Using the results to find the percentage mass of magnesium and
oxygen in magnesium oxide. (3mks)

(ii) Determine the empirical formula of magnesium oxide (2mks)

(b) Sodium hydroxide pellets were accidentally mixed with Sodium Chloride 8.8g of the mixture was dissolved in water to make one litre of solution. 50cm^3 of the solution was neutralized by 20.0cm^3 of 0.25M Sulphuric (VI) acid.

(i) Write down an equation for the reaction that took place. (1mk)

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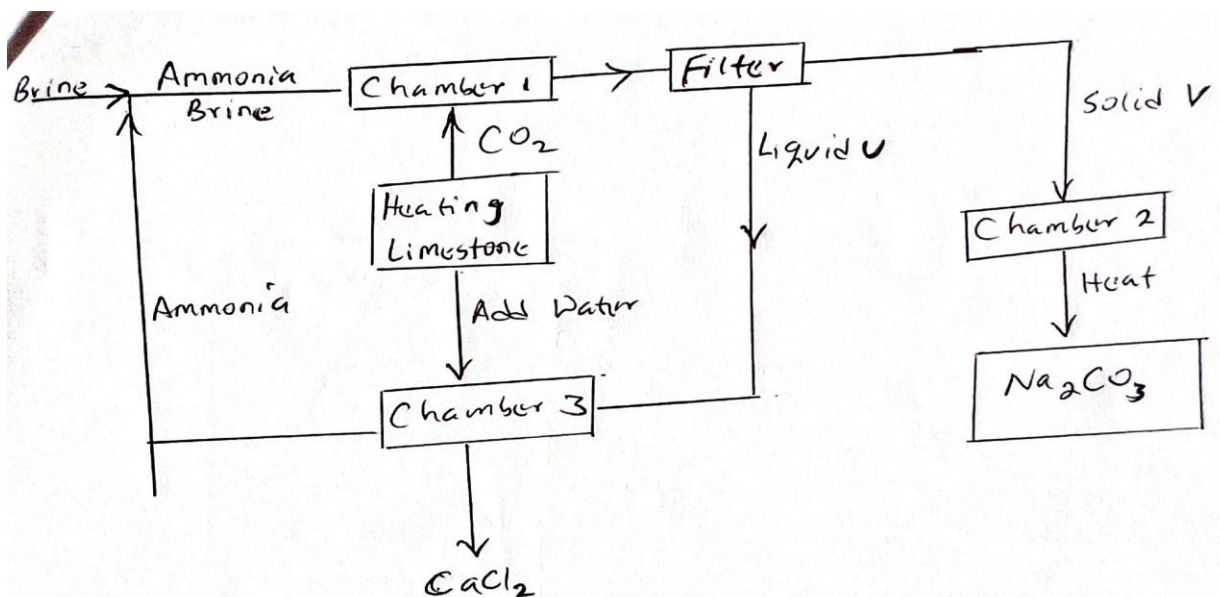
(ii) Calculate that:

I number of moles of the substances that reacted with sulphuric (vi) acid.
(2mks)

II Number of moles of substances that reacted with sulphuric (VI) acid in the one litre solution (2mks)

III The percentage of sodium chloride in that mixture. (2mks)

5. The figure below shows the stages in the manufacture of sodium carbonate. Study it and answer the questions that follow.



a) (i) Name three starting materials in the manufacture of sodium carbonate. (3mks)

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(ii) Which substances are re cycled in this process (1mk)

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(iii) Identify the chambers in which the recycled substances' are regenerated. (1mk)

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(iv) Name the substances U and V. (2mks)

U.....

V.....

b) Give an equation for the reaction which occurs.

(i) In the reaction chamber. (2mks)

.....
.....

(ii) When solid V is heated. (2mks)

.....
.....

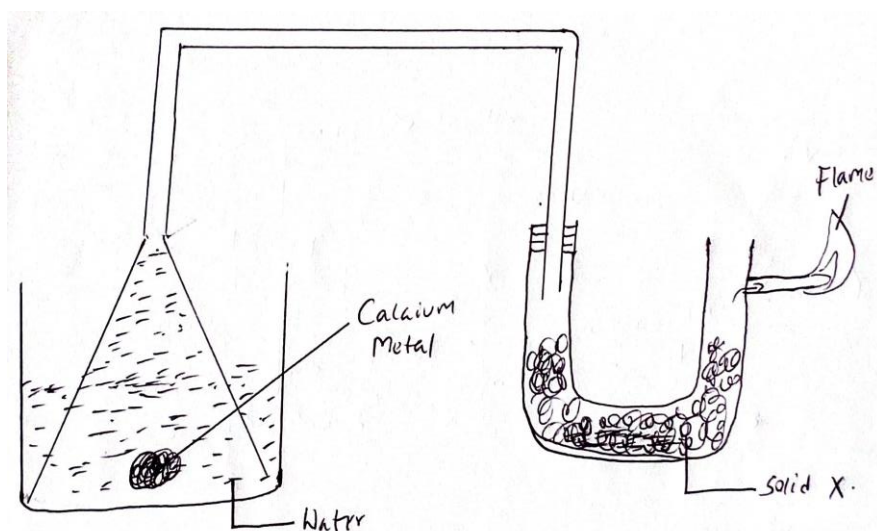
(iii) In the reaction chamber 3. (2mks)

.....
.....

c) State one commercial use of Sodium Carbonate (1mk)

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6. The set up below was used to investigate the reaction between metals and water.



a) Identify solid X and state its purpose. (2mks)

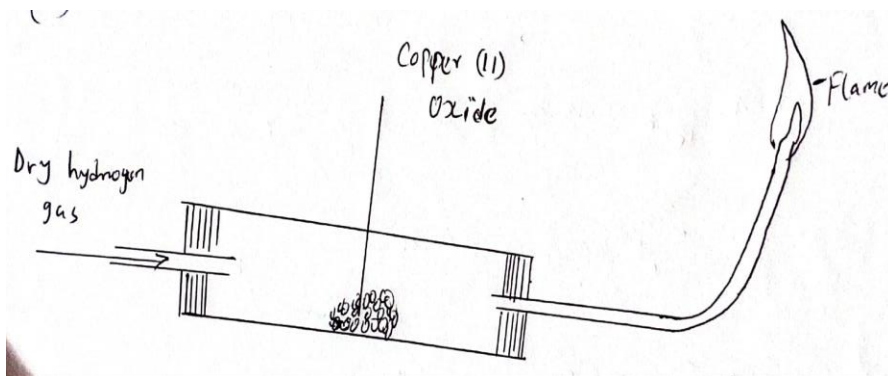
Solid X

Purpose

.....
.....

b) Write a chemical equation for the reaction that

(i) produces the flame (1mk)



(ii) The set up below was used to investigate the properties of hydrogen.

I On the diagram, indicate what would be done for the reaction to occur. (1mk)

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II Hydrogen gas is allowed to pass through the tube for some time before it is lit. Explain. (1mk)

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(iii) Write an equation for the reaction that occurs in the combustion tube. (1mk)

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(iv) When the reaction is complete, hydrogen gas is passed through the apparatus until it cools down. Explain (2mks)

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(v) What property of hydrogen is being investigated (1mk)

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(vi) What observation confirms the property stated in (V) above.(2mks)

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(vii) Why is Zinc Oxide not used to investigate this property of hydrogen gas (2mks)

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FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: DATE:

ADM NO: STREAM.....

233/3 CHEMISTRY

FORM THREE PAPER 3 / PRACTICAL 2¼ HOURS

INSTRUCTIONS TO CANDIDATES

- ❖ *Answer all questions in the spaces provided on the question paper*
- ❖ *You are not allowed to start working with the apparatus for the 1st fifteen minutes of the time allowed for this paper. This time is to enable you read through the question paper and make sure you have all the chemicals and the apparatus that you may need.*
- ❖ *All working must be clearly shown where necessary.*
- ❖ *Mathematical tables and electronic calculators may be used*

For Examiners Use Only

Question	Maximum score	Candidate's Score
1	20	
2	11	
3	09	

Total	40	
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QUESTION 1 **(20 MARKS)**

You are provided with:

- Solution H which is potassium manganate (VII) solution.
- Solution X which is dilute solution of hydrogen peroxide.
- Solution N which is 0.02M ammonium iron (II) sulphate solution.

You are required to:

- Standardize solution H using solution N.
- Use the standardized solution H to determine the concentration of solution X.

Procedure 1

1. Fill the burette with solution H.
2. Pipette 25cm³ of solution N and transfer it into a conical flask.
3. Titrate solution N against solution H until a permanent pink colour just appears.
4. Record the results in table 1 below.
5. Repeat the titration two more times to complete the table.

a) Table 1

	I	II	III
Final burette reading (cm ³)			
Initial burette reading (cm ³)			
Volume of solution H used (cm ³)			

(3mks)

b) Determine the average volume of solution H used. (1mk)

c) Calculate;

i) The number of moles of solution N in 25cm³. (2mks)

- ii) The number of moles of solution H that reacted given the equation for the reaction is (2mks)



- iii) The concentration of H in moles per litre. (2mks)

Procedure II

1. Fill the burette with solution H.
2. Using a clean pipette, place 25cm^3 of solution X into a conical flask.
3. Add 10cm^3 of 1M sulphuric acid and shake well.
4. Titrate using solution H until a permanent pink colour just appears.

5. Record the reading in table II below.

6. Repeat the titration two more times to complete the table.

d) Table II

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

(3mks)

e) Determine the average volume of solution H used. (1mk)

f) Calculate;

i) The number of moles of solution H used. (2mks)

- ii) The number of moles of solution X in 25cm³ if the equation for the reaction is; (2mks)



- iii) The concentration of solution X in moles per litre. (2mks)

QUESTION 2 (11 MARKS)

You are provided with the following;

- Solid Y
- Sodium chloride solution
- Potassium chloride solution
- Calcium chloride solution

You are required to identify the cations present in solid Y.

The following notes will assist in making the correct observations and inferences.

Cations are positively charged ions, majority of which are metal ions. Cations can be tested using one or a combination of the following methods;

a) Flame tests

- Some cations burn with flames that have distinct colours.

b) Carrying out precipitation reactions using the following;

- i) Sodium hydroxide
- ii) Aqueous ammonia
- iii) Anions such as CO_3^{2-} , SO_4^{2-} , Cl^- and SO_3^{2-}

Precipitates are formed as a result of formation of insoluble salts or metal hydroxides. The colour of the precipitate should be noted down when writing the observations. In case a white precipitate is expected and not observed, then one should record that there is no white precipitate but NOT no observation.

It is important to note that hydroxide of zinc, lead and aluminium are amphoteric thus can react with sodium hydroxide which is alkaline.

Procedure

a) Place all of the solid Y provided in a boiling tube. Add about 10cm³ of distilled water and shake well. Use about 2cm³ of the resulting solution to carry out tests (i) to (iii) below. Reserve the remaining portion for test (b).

Observations	Inferences
i) T o (1mk)	(1mk)

To the first portion, add aqueous sodium hydroxide dropwise until in excess.

Observations	Inferences
(1mk)	(1mk)

- ii) To the second portion, add aqueous ammonia dropwise until in excess.

Observations	Inferences
(1mk)	(1mk)

- iii) To the third portion, add about 1cm³ sodium chloride solution.

Observations	Inferences
(1mk)	(1mk)

b) Procedure

Clean a glass rod and rinse it with distilled water. Dry the glass rod on a Bunsen burner flame. Allow it to cool. Dip it in a little sodium chloride solution and burn it strongly with a non-luminous Bunsen burner flame. Note the colour of the flame and record it in table III below. Clean the spatula thoroughly and repeat the procedure using each of the other solutions and complete table III.

i) Table III

Solution	Colour of flame
Sodium chloride	
Potassium chloride	
Calcium chloride	
Solution Y	

(2mks)

- ii) From table III, suggest the cation that could be present in solid Y _____ (1mk)

QUESTION 3 **(9 MARKS)**

You are provided with solid F.

Procedure

Carry out the tests below using solid F. write the observations and inferences in the spaces provided.

- a) Place all solid F in a dry boiling tube. Add about 15cm³ of distilled water and shake thoroughly. Use 2cm³ portions of the solution for tests (b) to (e) below.

Observations	Inferences
(1/2mk)	(1/2mk)

- b) To the first portion add two drops of universal indicator and record the color and PH.

Observations	Inferences
(1mk)	(1mk)

c) To the second portion add a spatula and full of sodium carbonate.

Observations	Inferences
(1mk)	(1mk)

d) To the third portion add two drops of bromine water.

Observations	Inferences
(1mk)	(1mk)

e) To the fourth add three drops of acidified potassium manganate (VII)

Observations	Inferences
(1mk)	(1mk)

FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: DATE:

ADM NO: STREAM.....

END OF TERM 1 EXAMS

CRE PP 1

TIME: 2 ½ HOURS

Instructions to candidates

ANSWER ANY FIVE QUESTIONS

For Examiners Use Only

QUESTION	1	2	3	4	5	6	Candidates Total score
CANDIDATES SCORE							

- 1a) Describe the first Biblical creation account (Genesis I)
- b) Mention SIC relationships between human beings and God in the second Biblical account of creation.
- c) Give lessons to Christians from the fall of Adam into sin in Genesis 3 (6 marks)
- 2a) Outline SIX importance of the Abrahamic covenant (6 marks)
- b) What were the physical effects of the Egyptians when Pharaoh refused to release the Israelites? (7 marks)
- c) State lessons to Christians from the breaking of the Sinai covenant (7 marks)
- 3a) Identify FIVE problems encountered by the Israelites while settling in Canaan (5 marks)
- b) Write down failures of King Saul (7 marks)
- c) State activities that describe Elijah as the man of God (8 marks)
- 4a) Outline FIVE differences between the Old Testament Prophets and African Seers (5 marks)

- b) Describe the vision of the Plumbline as revealed to prophet Amos during his call (Amos 7:7-9) (8 marks)
- c) State lessons to Christians from Amos teaching on Israel Election (7 marks)
- 5a) Identify teaching of prophet Jeremiah on idolatry (6 marks)
- b) Explain the significance of Jeremiah's symbolic act of buying linen waist cloth (Jeremiah 13) (8 marks)
- c) Mention SIX sufferings of Prophet Jeremiah during his ministry (8 marks)
- 6a) What were the roles of Rainmakers in traditional African communities? (7 marks)
- b) State occasions when services of the herbalists were required in African communities (6 marks)
- c) Identify traditional African practices undermining the dignity of women (7 marks)
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FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: **DATE:**

ADM NO:**STREAM**.....

END OF TERM 1 EXAMS

CRE PP 2

TIME: 2 ½ HOURS

Instructions to candidates

ANSWER ANY FIVE QUESTIONS

For Examiners Use Only

QUESTION	1	2	3	4	5	6	Candidates Total score
CANDIDATES SCORE							

1a) Describe the concept of the Messiah in the New Testament.(7 marks)

b) Outline activities that took place when Mary visited Elizabeth. Lk 1:39-56 (7 marks)

c) Identify SIX ways in which Christian youths should show gratitude to God. (6 marks)

2a) Relate the story of the healing of a man with a withered hand LK 6:6-11 (8 marks)

b) Explain the teachings of Jesus from the parable of the Sower. (4 marks)

c) Write down EIGHT ways in which churches are assisting the sick.
(8 marks)

3a) Give reasons why Jesus was arrested (6 marks)

b) Describe an incident when Jesus was questioned about his
authority during Jerusalem Ministry LK 20:18 (6 marks)

c) Outline the importance of Easter holidays to Christians.(8 marks)

4a) Mention St. Paul's teachings on how the gifts of the Holy Spirit
should be used in the Church. (8 marks)

b) Explain the New Testament teachings on Christian unity(6 marks)

c) State SIX challenges that church ministers face today (6 marks)

5. (a)Describe the triumphant entry of Jesus into Jerusalem as in Luke
19:28-40 (8marks)

(b)Outline seven teachings of Jesus on prayer (7marks)

(c)Why do some Christians find it difficult to pray? (5marks)

6. (a)Outline Jesus' teaching on the role of the Holy spirit (7 marks)

(b) Show how the

Unity of Believers is illustrated in the image of the vine and the
branches as recorded in John 15:1-10 (8marks)

(c)State five factors which threaten unity in the church today(5 marks)

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FORM 3 END TERM 1 SERIES 2 EXAMS



NAME:

SCHOOOL:

SIGN: DATE:

ADM NO: STREAM.....

ENGLISH FORM 3

PAPER 1

END OF TERM

TERM 1

TIME: 2HRS

Instructions:

Answer all the questions in the spaces provided

1. FUNCTIONAL WRITING.

You are a member of a committee that has been assigned the duty of planning the annual prize day at your school.

- a) Write a letter of invitation to the local member of your County Assembly (MCA). (12mks)
- b) Design a card that would be used to invite guests to the ceremony. (8mks).

2. Cloze test (10mks)

Fill in the blank spaces in the following passage with the most suitable word.

Imagine that while walking along a road, you saw a large, shiny bag sitting _____ unattended. You look around you and there is no one else. _____ would you do? Would you walk _____ from the bag as most cautious people would? Maybe your curiosity would get the _____ of your caution, and the urge to know what the _____ of the bag are, might overwhelm you. If you did not look into the bag and found it full of crisp new _____, would you make attempts to find _____ owner of the bag? Might you be tempted to keep the money _____ yourself? After all, there is always so much in our lives that we can buy or pay for. _____ you chose to keep the bag, would you do so with a _____ conscience, or would you forever be plagued by the idea that you kept money which was not yours, which is basically stealing?

3. Oral communicative skills.

Read the following poem and answer the questions that follow.

I'm a keen dog, a keen dog, a wild dog, and alone;
I'm a rough dog, a tough dog hunting on my own;
I'm a bad dog, a mad dog, teasing silly sheep;
I love to sit and bay at the moon, to keep fat souls from sleep.

I'll never be a lap dog, licking dirty feet,
A sleek dog, a meek dog, cringing for my meat;
Not for me the fireside, the well filled plate,
But shut door, the sharp stone, cuff and kick and hate.

Not for me the other dogs, running by my side;
Some have run short while, but none of them would bide;
O mine is still the lone trail, the hard trail, the best,
Wide wind, and wild stars and the hunger of the quest!

(Irene Rutherford Mclfod)

Questions

A. Describe the rhyme scheme in the poem above. (2mks)

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2. Identify two other sounds used in the poem. (4mks)



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3. How would you perform the following poem for a live audience?(2mks)

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B. Give examples of the following sound devices. (4mks)

i. Onomatopoeia

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ii. Assonance

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iii. Ideophones



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iv. Alliteration

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C. Identify the silent letters in the following words. (2mks)

i. Island

ii. Fasten

D. Study the below genre of oral literature and answer the questions that follow.

Kiiru: Oyiete, (are you ready?)

Audience : E-euo, (we are ready)

Kiiru: Mmm-mh!

Audience: Ilomonlatalaendaanaisho. (The visitors for whom I have no food)

Questions.

- i. Identify the above genre. (1mk)

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- ii. Explain the features present in the above genre. (3mks)

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- iii. How many participants does the above genre involve?
Identify their roles. (2mks)

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- E. **The underlined word indicators the stressed word in the sentences below. Explain the meaning brought out when the underlined word is stressed in each sentence.** (3mks)

- i. We worked for him.

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- ii. We worked for him.



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iii. We worked for him.
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F. The following is a telephone conversation between Basweti and the receptionist of Mambo Kubwas General Stores. Insert the missing speech lines. (7mks)

Receptionist: Mambo Kubwa General Stores, good morning.

Basweti: _____

Receptionist: May I help you, Mr. Basweti?

Basweti: May I please speak to your sales manager:

Receptionist: _____

Basweti: How come? Is she very busy?

Receptionist: _____

Basweti: In that case, I might be forced to call some other time.

Receptionist: Why is that? Perhaps someone else in the office could be of help to you.

Basweti: _____

Receptionist: Why not? Is it something personal?

Basweti:_____

Receptionist: Okay, I understand. Can I take a message for her?

Basweti:_____

Receptionist: I have taken it down for her. I will also personally remind her to call you. Bye for now and thank you for calling.

Basweti:_____

FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: **DATE:**

ADM NO: STREAM.....

END TERM 1

ENGLISH PP2

FORM 3

TIME:2 ½ HRS

QUESTION 1. COMPEREHENSION PASSAGE(20 MARKS)

Read the following passage and answer the questions that follow

You may think that expecting food to change your life is too much to ask. But have you considered that eating the right food at the right time will increase your energy, help you manage weight and ward off major illness?

Researchers have found that eating a meal with plenty of protein leaves you feeling more satisfied for longer when compared to a meal loaded with low-quality carbohydrates. your body takes longer to digest protein, leading to a gradual increase in blood sugar. The high protein breakfast will therefore carry you through the morning and ,more importantly ,through your tea break. Many high-carbohydrate meals are absorbed quickly and send blood sugar on a roller coaster ride, taking your appetite with it and depleting your energy.

Many foods contain antioxidants neutralize molecules known as free radicals before they damage arteries and body cells. This protects you from

heart diseases, high blood pressure, cancer and diabetes; you can now see why antioxidant foods should be consumed in generous portions. Actually, forget pills-antioxidants work best when consumed in foods. In fact, nutritionists recommend that we eat five portions of fruit and vegetables a day. Its less daunting than it sounds: a portion equals a piece of fruit, three tablespoons of cooked vegetables or a glass of flesh juice.

And do you desire to relieve yourself of some baggage? calcium is the latest weight –loss star to appear on the scene. Scientists stumbled on its magic by accident. From a study that measured the blood pressure of obese people, it was discovered that those who took one large tub of yoghurt a day in their diet lost an average of eleven pounds of body fat in one year, even though they did not eat less.

A follow-up study found that people high-calcium diet lost more weight and fat than did people on a low calcium diet- and again, both consumed the same number of calories.

Researcher*believe calcium encourages fat cells to stop “getting fatter”. Instead, the cells burn extra fat without you having to go anywhere near a gymnasium.

It probably sounds strange to say that you can eat more in order to lose weight .Obviously, the question you should ask immediately is, “Eat more of what?”We are talking about foods rich in fibre . They have what is refer

to as low energy density; that translates to few calories relative to weight. This means that you can down a mountain without fear of calorie overload. Fibre also aids weight loss because its filling. Most high fibre foods take a lot of chewing triggering your bodies fullness sensors. Moreover, you absorb the food more slowly so you feel full longer. Will the wonders of food ever cease? Not if researchers in nutrition keep up their pace. Let them keep the good news flowing-such as the fact we don't have to starve ourselves to lose weight and keep disease at bay.

Questions

- a. From the information given in the first paragraph, how can you improve your life? (2 marks)

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- b. In not more than 35 words, summarize the effects of eating carbohydrates. (4 marks)

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c. Explain how free radicals contribute to the occurrence of high blood pressure and cancer. (2 marks)

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d. In what two forms can antioxidants- be consumed? (2 marks)

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e. “In fact nutritionists recommend that we eat five portions of fruits and vegetables a day.”

Rewrite the sentence above as a question without changing the meaning, beginning: Don’t..... (1 mark)

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f. What is the attitude of the author towards calcium calcium as a weight –cutting measure? (2 marks)



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g. According to the passage, how can you use up excess fat?(2 marks)

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h. Identify an instance of irony in the passage. (2 marks)

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

i. Daunting-

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ii. Baggage-

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iii. Down a mountain-
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QUESTION 2

BLOSSOMS OF THE SAVANNAH

Read the following excerpts and answer the questions that follow.

Although Resian had a lot to complain and grumble about in life in their new environment Taiyo found it tolerable. For instance, she gladly discovered that mornings in their new home began with a lively chatter of birds in the trees surrounding their house. That gave the home an atmosphere of tranquility and peace.

However, one of the unpleasant aspects that the girls had to live with was the constant violation of their privacy. In Nasila, they soon discovered, the home belonged to all the clan members. It was not an unusual thing to get up in the morning to find the living room full of men and women who came early, not for any tangible business, but simply to share a sumptuous breakfast with their kith and kin.

Taiyo and Resian were soon to get used to hearing an urgent knock at the door very early in the morning.

On opening, they would invariably be met by a grinning group of men or women, would unashamedly ask them what they were doing in bed that late in the morning. They would proceed to take seats in the living room and order them to serve them breakfast .When they got used to what at first, they considered negative aspects of the Nasila culture, Taiyo and Resian adjusted accordingly and soon they began to live harmoniously with the people. Their father was out of the homestead most of the time working at the ship and organizing other business matters. His absence meant the absence of his irksome and corrosive remarks that always heightened tension in the house. In his absence, the house was a continuous joy with comfort and conveniences, and the girls found it pleasurable to keep it clean and well arranged.

Questions

a. What happens immediately after this extract? (5 marks)

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b. Where had the family been living before and why did they move?

(3 marks)

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c. Give the character traits of the following : Taiyo

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The people of Nasila

(8 marks)

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d. Discuss a theme implied in the extract. (3 marks)

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e. Using the rest of the book, cite and explain one cultural aspect that had life changing effect on the lives of the two girls. (3 marks)

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f. Explain a stylistic device used in this extract. (2 marks)

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g. Taiyo and Resian adjusted accordingly? Add a question tag.
(1 mark)
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Read the poem below and answer the following questions that follow.

A TAXI DRIVER ON HIS DEATH BED (By Timothy Wangusa)

When with prophetic eye I peer into the future
I see that I shall perish upon this road
Driving men that I do not know
This metallic monster that I now dictate,
This docile elaborate horse,
That in silence, seems to simmer and strain
Shall surely revolt some tempting day.
Thus I shall die: not that I care
For any man's journey,
Nor for the proprietor's gain.

Nor yet the love of my own.
Not for these do I attempt the forbidden limits.
For these defy the traffic man and the cold cell,
Risking everything for the little, little more.

They shall say, I know, who pick up my bones,
“Poor chap, another victim to the ruthless machine”
Concealing my blood under the metal.

Questions

a) What is the poem about? (3mks)

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b) What is the attitude of the persona towards his fate? (2mks)

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c) With illustrations, identify the persona in the poem (2mks)



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d) What is the irony in the poem? (2mks)

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e) With illustrations, identify and comment on any other two stylistic devices used in the poem (6mks)

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f) Comment on the following line (2mks)

“Poor chap, another victim to the ruthless machine”



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g) How will the persona's death come about? (2mks)

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h) Give the poem another title (1mk)

QUESTION 4

a. After each of the following words, write a word that is gender sensitive. (3 marks)

- i. Spokesman-
- ii. Airhostess-
- iii. Cleaning lady-

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

- i. Owino did not know that a tree had.....(strike) his house
 - ii. Nobody expected the company to make(lose)
 - iii. The three.....(passer-by)were arrested.
- c. Fill in the blank spaces below with the correct form of the verb in brackets.(3 marks)
- i. The team was..... for coming late.(qualify)
 - ii. They were.....attacked by the gangsters.(vicious)
 - iii. The of the matter brought the president to their county.(grave)
- d. Fill each blank space in the following sentences with the correct preposition.(6 marks)
- i. Sometimes it is quicker to go.....foot than.....bus.
 - ii. Sign your name.....the dotted line.....the bottom of the page.
 - iii. There is something exciting.....football.
- Throughout Kenya, football matches are played.....capacity crowds.

FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: DATE:

ADM NO: STREAM.....

101/3 ENGLISH PAPER 3

(Creative Composition and Essays Based on Set Texts) Time: 2 ½ hours.

FORM THREE END TERM EXAM TERM ONE

Instructions to the Candidates

1. Write your details in the spaces provided at the top of this page.
2. Answer **three** questions only.
3. All questions are compulsory
4. In question **three** choose only **one** of the optional texts you have prepared for.
5. Each of your essays must **not** exceed **450** words (2 pages)
6. Candidates should check to ascertain that no questions are missing.
7. Candidates must answer the questions in English.

For Examiner's Use Only

Question	Maximum score	Candidate's score
1	20	
2	20	
3	20	
Total	60	

Answer All Questions

1) Imaginative composition (20 mks)

Write a composition ending with “.....If only I was given another chance, I would do things differently.”

2) Expository essay (20 mks)

Write an essay on the role of the youth in helping to fight corruption.

3) Compulsory Set Text (20 mks)

Blossoms of the Savannah

Choices have consequences. Show the truthfulness of the above statement in reference to the novel, Blossoms of the Savannah.

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FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: **DATE:**

ADM NO: **STREAM**.....

312/1

GEOGRAPHY PAPER 1

FORM THREE

END OF TERM 1 EXAM

TIME: 2 $\frac{3}{4}$ HOURS

INSTRUCTIONS

- 1. The paper comprises of 2 sections. A and B.**
- 2. Attempt all questions in section A.**
- 3. In section B, answer question 6 and choose any other two questions.**

SECTION A:

Answer all questions from this section.

1. (a) Describe the plate tectonic theory. (2 mks)
(b) Identify three results of the movement of plates along the boundaries. (3 mks)
2. (a) Define the term hydrological cycle. (2 mks)
(b) Describe two ways in which the atmosphere is heated. (4 mks)
3. (a) Define vegetation. (1 mk)
(b) Outline three conditions that influence the distribution of vegetation. (3 mks)

- (c) Name two types of vegetation likely to be found beyond 60°N of the equator. (2 mks)
4. Define an earthquake. (2 mks)
5. State the negative effects of faulting on the human environment. (6 mks)

SECTION B:

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

6. Study the map of Taita Hills (1:50,000) sheet 189/4 provided and answer the following questions .
- (a) (i) What is the bearing of peak of Mwatunga hill in grid square 3214 from the water tank in grid square 2619 (2mks)
- ii) What is the length in kilometres of the section of Mwatate-Voi railway line in the south eastern part of the map (2mks)
- b) Draw a rectangle measuring 16cm by 12 cm to represent the area enclosed by the Eastings 24 and 40cm and Northings 20 and 30 (1mrk)

On the rectangle ,mark and name the following features

- Mgange hills (1mk)
- A rock outcrop (1mk)
- All weather road,bound service (1mk)
- River Ruhia (1mk)
- Ronge forest (1mk)

(a) (i)Describe the distribution of settlements in the area covered by the map (5mks)

(ii)Citing evidence from the map, give two economic activities carried out in the area covered by the map other than sisal farming (5mks)

(d) (i) Name three types of natural vegetation in the area covered by the map(3mks)

(ii) What is the magnetic variation as of January 1991 (2mks)

7. (a) (i) Define mass wasting. (2 mks)

(ii) Explain how the following factors influence mass wasting.

(8 mks)

i)Nature of materials

ii)Angle of slope

iii)Climatic factors

iv)Vegetation cover

(b) Using well labeled diagrams, describe rockfall as a process of mass wasting.(6 mks)

(c) Explain ways in which mass wasting influences the natural environment. (10 mks)

8. (a) State two differences between plutonic and volcanic rocks.
(4 mks)

(b) (i) Explain how mechanically formed sedimentary rocks are formed. (5 mks)

(ii) Give three characteristics of intrusive igneous rocks. (3 mks)

(c) (i) Fill in the table below. (4 mks)

Original rock	Metarmorphic rock
W	Slate
Granite	X
Coal	Y
Z	Marble

(ii) State the uses of rocks. (5 mks)

(d) You are planning to carry out field study on rocks within your school.

(i) State why you would need the following:- (3 mks)

Lenses –

Paper Bag –

Geological hammer –

(ii) Give three problems you might encounter during the field study.
(3 mks)

9. (a) (i) Differentiate between river regime and river discharge.(2 mks)

(ii) Explain three factors that influence the rate of river erosion. (6 mks)

(b) Using a well labeled diagram, describe the formation of an arcuate delta.(5mks)

(c) Give three ways in which a river transports materials. (3 mks)

(d) You carried out field study on a river in its youthful stage.

(i) Explain how abrasion could have led to the formation of the features in this stage.(4mks)

(ii) Identify three features of erosion formed by the river in this stage.
(3 mks)

(iii) Give two challenges you could have faced while carrying out the study.(2 mks)

10. (a) (i) Distinguish between secondary vegetation and planted vegetation.(2 mks)

(ii) Explain how the following factors influence the distribution of vegetation.(4 mks)

- Precipitation

- Soil

(iii) State four ways in which vegetation is of significance to the physical and human environment. (4 mks)

(b) Explain three factors that led to the decline of natural vegetation in Kenya.(6 mks)

(c) State three ways in which savanna type of vegetation is adapted to the climatic conditions. (3 mks)

(e) Students from Anestar secondary school carried out field study across the slope.

(i) State the methods they are likely to have used to collect data.(6 mks)

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FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: **DATE:**

ADM NO:**STREAM:**.....

GEOGRAPHY PAPER 2

FORM 3

TIME: 2³/₄HOURS

- **This paper has TWO Sections A and B**
- **Answer All the questions in section A**
- **Answer questions 6 and any other Two questions from Section B.**
- **Answer must be written in the spaces provided.**
- **Students should check the questions paper and ascertain that all the pages are printed as indicated and that no questions is missing,**
- **Students should answer the questions in English.**

SECTION A

1. (a) What is practical Geography? (2mks)
(b) State THREE practical aspects we study in Geography. (3mks)
2. Identify FIVE activities that may be undertaken in your school to conserve trees. (5mks)
3. Outline the advantages of using photographs in learning geography. (5mks)
4. (a) Name THREE major categories of minerals (3mks)
(b) Give TWO examples of fossil fuels. (2mks)
5. (a) What is Agro-forestry? (2mks)
(b) State THREE reasons for encouraging agro-forestry in Kenya. (3mks)

SECTION B

ANSWER Question 6 and any other two questions in the section.

- 6. (a) The table below shows land use in Nairobi area in 2003. Use it to answer questions that follow.**

Land use	Area in '000' km ²	Length of portions in cm

Settlement	110	
Grass	30	
Horticulture	50	
forest	10	
TOTAL	200	

i) Calculate the length of each portion in the divided bar graph.
(4mks)

(c) (i) Name the TWO types of statistical data (2mks)

(ii) Give FOUR characteristics of statistical data. (4mks)

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

(ii) Why is mining termed as a ‘robber’ industry? (2mks)

b) Identify THREE factors that influence the exploitation of minerals. (3mks)

c) Explain how the following factors influence the exploitation of minerals. (3mks)

(ii) level of technology or skills, (5mks)

(d) (i) Explain THREE problems associated with the shaft method of mining. (6mks)

(ii) Apart from shaft method of mining, name other methods of underground mining. (3mks)

8. (a) Distinguish between:

(i) Forestry and a forest. (2mks)

(ii) Afforestation and re-afforestation. (2mks)

(b) Apart from coniferous forests, name FIVE other types of natural forests. (5mks)

© List FIVE factors that influence the distribution of forests in Kenya. (5mks)

d)(i) Explain THREE factors that favour the growth of natural forests on the slopes of Mt. Kenya. (6mks)

(ii) Outline the steps taken in forest exploitation (5mks)

9. (a) Use the map of East Africa below showing the distribution of major minerals to answer the question that follows.

Name the major minerals mined in the areas marked A- F. (6mks)

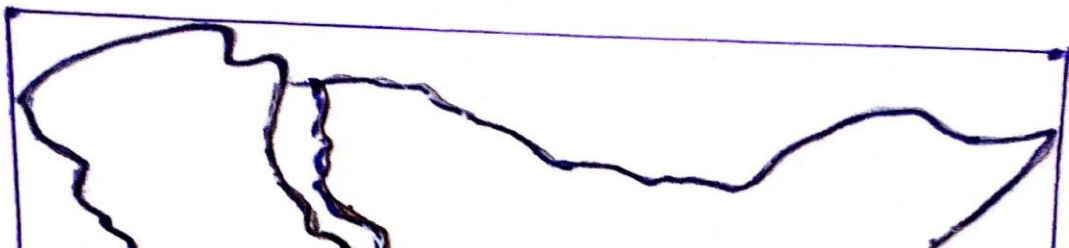
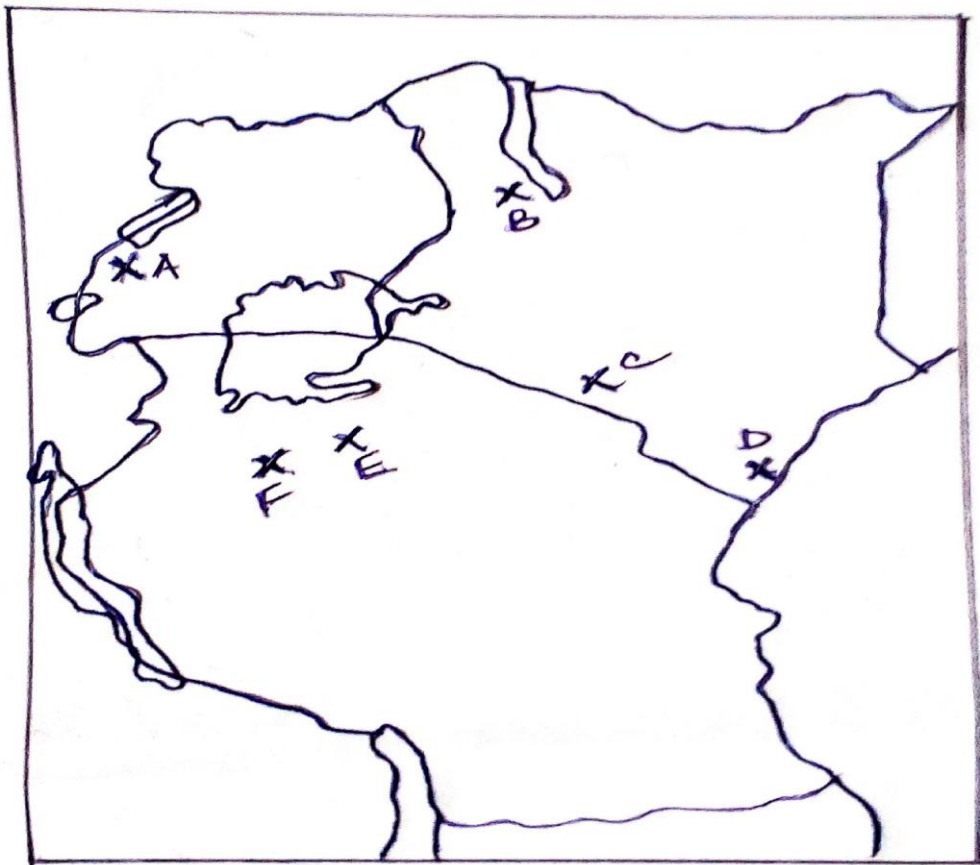
(b) Give reasons why coal in Tanzania is underexploited. (5mks)

(c) Explain THREE negative effects of mining to the environment.
(6mks)

(d) (i) Give THREE uses of Soda ash. (3mks)

(ii) Name FIVE major Oil producing countries in Africa.(5mks)

10. (a) The map of Kenya below shows some forested areas.



Name the forest reserves marked a-h. (8mks)

(b) State FIVE ways in which clearing of forests has affected the natural environment in Kenya. (5mks)

© 9i) Name THREE softwood tree species grown in forests of Canada. (3mks)

(iii) Give FIVE characteristics of softwood forests of Canada. (5mks)

(d) Give the differences between softwood forests in Kenya and Canada under the following sub- headings:

(i) Period of harvesting. (2mks)

(ii) Period of growth (2mks)

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FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: DATE:

ADM NO: STREAM.....

FORM 3
HISTORY AND GOVERNMENT
PAPER 1
END TERM 1
EXAMS
TIME 2HRS 30MIN

INSTRUCTIONS: SECTION A: Answer All Questions in This Section. (25 MKS)

1. What is the difference between a Pongidae and a Hominidae?
(1 mark)
2. Identify the community that displaced the Pokomo from Shungwaya.
(1 mark)
3. List **two** roles of warriors among the pre-colonial Miji-Kenda.
(2 marks)
4. State **two** roles of the Orkoiyot among the pre-colonial Nandi community. (2 marks)
5. Who was the first European to see Mt. Kenya in 1849?
(1 mark)
6. Name **two** constitutional amendments which were done in 1982 in Kenya. (2 marks)
7. Define the term “Scorched earth policy”. (1 mark)
8. Which was the **main** war method used by Africans in their resistance? (1 mark)
9. Identify the agreement signed to end partitioning of East Africa.
(1 mark)
10. List **two** ways the Akamba displayed their resistance against the colonial administration. (2 marks)
11. Identify the basis of the political organization of African communities in Kenya during the pre-colonial period. (1 mark)

12. Name **one** political parties that existed in Kenya at Independence.
(1 mark)
- 13 Mention **two** duties of a chief during the colonial administration in Kenya. (2 marks)
- 14 State **one** group that provided education in Kenya during the colonial period. (1 mark)
- 15 Name **one** community in Kenya that showed mixed reaction towards British colonization in Kenya.
(1 marks)
16. State two methods which were used by the British to establish their rule in Kenya. (2 marks)
17. State two development rights of children. (2 marks)

SECTION B

Answer three questions in this section.(45 marks)

18. (a)State **five** economic activities of the Agikuyu during the pre-colonial period. (5 marks)
(b) Describe the political organization of the pre-colonial Somali community. (10 marks)
19. (a)List **five** reasons for the coming of the missionaries to Kenya.
(5 marks)
(b) Explain **five** positive results of the Omani rule along the Kenyan Coast. (10 marks)
20. (a)Identify **three** terms of the Devonshire Whitepaper 1923.
(3 marks)
(b) Explain **six** methods used by the colonial government to promote settler farming in Kenya. (12 marks)

21. (a) Identify **five** reasons for the collaboration of the Maasai. (5 marks)
(b) Explain **five** reasons for failure of armed resistance by the Kenyan communities. (10 marks)

SECTION C:

Answer any two questions in this section.(30 marks)

22. (a) State **three** factors that may cause revocation of citizenship by registration in Kenya (3mks)
(b) Explain **six** rights that are guaranteed to an arrested person by the Bill of Rights in Kenya. (12 marks)
23. a) State **five** non-violent methods of resolving a conflict. (5 marks)
b) Explain **five** factors that promote national unity. (10 marks)
24. (a) State **three** characteristics of indirect democracy. (3mks)
(b) Explain **six** principles of democracy. (12mks)

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FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: DATE:

ADM NO: STREAM.....

HISTORY AND GOVERNMENT

PAPER 2 END OF TERM 1

TIME 2 HOURS 30 MINUTES

FORM 3

SECTION A (25 MARKS)

Answer all questions in this section in the answer booklet provided.

1. Give the earliest form of art by early man. (1mk)
2. State two examples of Old wan tools. (2mks)
3. Identify two advantages of the land enclosure system in Britain during the Agrarian revolution. (2mks)

4. Give one result of the invention of the wheel in Mesopotamia.(1mk)
5. State two disadvantages of animal transport. (2mks)
6. Identify two trade goods that originated from Western Sudan during the Trans-Saharan trade. (2mks)
7. Identify two scientific inventions which contributed to food preservation in the 18th century. (2mks)
8. List two factors that led to the expansion of Mwene Mutapa Kingdom. (2mks)
9. Give the importance of the golden stool in the Asante Empire. (1mk)
10. Name one leader who led to the Maji Maji rebellion against the Germans. (1mk)
11. Name one treaty that was signed between the Ndebele and Europeans. (1mk)
12. Give two functions of the Emirs in Northern Nigeria during the colonial administration. (2mks)
13. Identify two uses of copper in Africa during the 19th century.(2mks)
14. Give one negative impact of internet today. (1mks)
15. Name the leader of the British South African Company (BSACO.) in the 19th century. (1mk)
16. Identify one method of colonial administration used by the French in Africa (1mks)

17. State one reasons why early people domesticated crops and animals during the Neo-lithic period. (1mks)

SECTION: B

Answer three questions in this section.(45 marks)

18(a) Give five changes marking the Agrarian Revolution in Britain.
(5marks)

(b) Explain the effects of the Agrarian Revolution in Britain. (10marks)

19. (a) Give three factors that led to development of urban centers in Africa during the pre-colonial period. (3marks)

b) Explain six consequences of urbanization in Europe during the 19th century (12mks)

20a).Give three reasons why the Ndebele were defeated by the British in 1893 – 1894 (3mks)

(b). briefly describe the results of the Anglo-Ndebele war (Chimurenga) in 1893-1894. (12mks)

21a) Give three communities that were involved in the Maji Maii Rebellion. (3 marks)

b) What reasons led to the failure of the Maji Maji Rebellion in 1907 (12 marks)

SECTION C

Answer three questions in this section.(30 marks)

22a) State **three** economic effects of partition of Africa.

(Marks)

b) Explain **six** causes of Lewanika's collaboration with the British in the 19th century. (12 marks)

23a) State **five** economic activities of the Shona in the 19th century. (5 marks)

b) Describe the political organization of the Buganda kingdom in the pre-colonial period. (10 marks)

24a) Give five reasons why the British used Direct Rule in Zimbabwe. (5mks)

(b) Explain five reasons why Samori Toure resisted the French for so long. (10 mks)

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FORM 3 END TERM 1 SERIES 2 EXAMS

JINA:

SHULE:

NAMBARI YA USAJILI: TAREHE:

MASWALI YA INSHA

KIDATO CHA TATU

- *Jibu maswali mawili pekee.*
- *Idadi ya maneno isipungue 400*
- *Swali la kwanza ni la lazima*
- *Chagua lingine kutoka kwa matatu yaliyobaki*

Swali la lazima

Wewe ni mwanahabari kutoka Gazeti la ‘KENYA STAR’

Andika mahojiano yako na Mbunge kuhusu mpango wa miradi ya hazina ya eneo – bunge analowakilisha.

Swali la pili

Wewe ni wakili uliyefuzu kutoka chuo kikuu cha Nairobi. Andika barua ya kuomba nafasi ya kazi ikiandamana na wasifu kazi wako katika ‘Mugoh Kangi Law firm’.

Swali la tatu

Mti ukifa shinele na tanzuze hukauka.

Swali la nne

Andika insha itakayoishia kwa maneno haya.

..... niliinua kichwa juu nikapiga magoti na
kumshukuru Mungu kwa kuyanusu maisha yangu.

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FORM 3 END TERM 1 SERIES 2 EXAMS



JINA:

SHULE:

NAMBARI YA USAJILI:**TAREHE:**

102/2 KISWAHILI KARATASI YA 2

MUHULA WA KWANZA

UFAHAMU, UFUPISHO, MATUMIZI YA LUGHA NA ISIMU JAMII

MUDA: SAA 2 ½

MAAGIZO KWA MTAHINIWA

- ❖ Jibu maswali yote.
- ❖ Majibu yote yaandikwe katika nafasi zilizoachwa katika kijitabu hiki cha maswali.
- ❖ Tumia hati safi.

KWA MATUMIZI YA MTAHINI PEKEE

Swali	Jumla	Tuzo
1	15	
2	15	
3	40	
4	10	
JUMLA	80	

1. UFAHAMU (Alama 15)

Soma makala yafuatayo kasha ujibu maswali

Huku ulimwengu unapoingia katika teknolojia ya tarakilishi na sera ya utandaridhi, ukweli wa mambo ni kuwa akina mama wamezinduka. Suala la usawa wa kijinsia limeanza kushamiri kote duniani na ole wake mwanamume yeyote ambaye hajawa tayari kutembea na majira. Lakini hebu tuchunguze jambo hili kwa makini zaidi.

Usawa wa jinsia ni nini? Usawa wa kijinsia ni usawa wa binadamu wote; wawe wake au waume. Usawa huu unapaswa kudhihirika katika kugawa nafasi za kazi, utoaji wa elimu, nafasi za uongozi na nyanja nyinginezo zozote za maisha.

Ubaguzi wa aina yoyote ile hasa dhidi ya mwanamke ni jambo linalokabiliwa na vita vikali sana ulimwenguni kote.

Dahari na dahari, hasa katika jamii za kiafrika, kumekuwa na imani isiyotingisika kuwa mwanamke ni kiumbe duni akilinganishwa na mwanaume. Kwa hivyo mwanamke amekuwa akifanyiwa kila aina ya dhuluma ikiwepo kupigwa, kutukanwa, kudharauliwa, kunyimwa haki zake, kunyimwa heshima na mambo kama hayo. Lakini je, ni kweli kuwa mwanamke ni kiumbe duni asiyefaa kutendewa haki?

Tukichunguza jamii kwa makini tunaweza kuona mara moja kuwa hivyo ni imani potofu isiyo na mashiko yoyote. Ukiimulika familia yoyote ile iliyopiga hatua kimaendeleo, uwezekano mkubwa ni kuwa mume na mke wa familia inayohusika wana ushirikiano mkubwa.

Mume anamthamini mke wake na hadiriki kufanya maamuzi muhimu yanayoweza kuathiri maendeleo ya familia bila kumhusisha mke. Mume kama huyo huketi na mkewe, wakishauriana na kufikia uamuzi bora.

Tukitoka katika muktadha wa kifamilia na kumulika ulimwengu wa kazi iwe ni katika afisi za kiserikali au kwenye makampuni binafsi, ukweli ni kwamba kiongozi yeyote yule aliyefaulu katika usimamizi wake mara nyingi huwa na mke nyumbani ambaye wanashauriana kila uchao kuhusu kazi anayofanya hata kama mke hafanyi kazi mahali pale. Hisia na mawaidha anayotoa mke kwa mume wake ni tunu na huenda asiyapate kwingineko kokote hata katika vitabu vya kupigiwa mifano. Hii ni mojawapo ya sababu ambayo huwafanya viongozi wa nchi mbalimbali kupenda sana kuwatambulisha wake na familia zao waziwazi kwa vile wanajua kuwa jamii inathamini sana msingi wa jamii. Kiongozi ambaye hana mke au familia au yule ambaye mke wake hatambuliki, hutiwa mashaka na jamii hata kama ni kiongozi aliye na azma ya kushikilia kazi ngumu ya kuongoza umma.

Tukirudi nyuma kidogo na kupiga darubini mataifa ya mbali, tunaweza kuwaona wanawake mashuhuri walio uongozini ambao hadi waleo unapigiwa mfano. Wanawake mashuhuri waliotoa uongozini ambao hadi waleo unapigiwa mfano. Wanawake hao walisimamia mojawapo ya mataifa yenye uwezo na ushawishi mkubwa zaidi duniani.

Ingawa wengi wao sasa wameng'atuka, uongozi wao bado unakumbukwa hata baada ya miaka mingi ya wao kuamua kupumzika, Mifano ni kama: Bi Margaret Thatcher aliyekuwa waziri mkuu wa Uingereza, Bi Bandranaike wa Sri Lanka, Golda Meir wa Israel na wengine wengi katika mataifa kama Indonesia, Ufilipino, Bangladesh, Pakistani na kwingineko.

Katika kufikia tamati, tunapozungumza kuhusu jinsia, hatuna budi kugusia kitafsili masuala nyeti. Kwanza, imani ya kushikilia kikiki tamaduni zisizofaa, ni jambo linalofaa kuchunguzwa kw makini. Kwa mfano, kuna badhi ya jamii ambazo humlazimu mke kurithiwa baada ya kifo cha mumewe. Vile vile baadhi ya jamii za kiafrika zinashikilia kuwa mwanamke hana haki ya kurithi. Kutokana na imani hii, wanawake wengi huishi maisha ya taabu baada ya kutengana na waume zao kwa vile hawana haki ya kurithi chochote kutoka kwa wazazi wao hata kama wazazi hao wana mali nyingi kupindikukia. Mali ya wazazi ni haki ya watoto wa kiume wala si watoto wa kike! Hili ni jambo la kusikitisha mno.

Isitoshe, wanawake hukumbwa na kizingiti kingine wanapojaribu kumiliki mali ya waume zao baada ya waume hao kukata kamba. Sababu ni kuwa, baada ya hao wenda zao kuwekwa kaburini, vita vya umiliki wa mali huanza mara moja na mwishowe yule mke maskini hujikuta hana hata mahali pa kulala sembuse mali waliyochuma na mali

yake yote kunyakuliwa na aila ya mumewe . Jambo hili linaonyesha namna tulivyoachwa nyuma na uhalisia wa mambo. Ni lazima jamii izinduke na itoke kwenye kiza hiki chenye maki nzito.

MASWALI

- (a) Ina maana gani kusema kuwa wanaume hawana budi “kutembea na majira?” (alama2)

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- (b) Kabla ya uzinduzi huu kuhusu usawa wa kijinsia, wanawake wamekuwa wakitendewa dhuluma za kila aina. Taja tatu. (alama 3)

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- (c) Je, ni kwa nini viongozi wengi hupenda kujitambulisha na familia zao? (alama 2)

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(d) Je, unaamini kuwa hisia na mawaidha anayotoa mke kwa mume wake ni tunu na huenda yasipatikane kwingineko? Fafanua
(alama 2)

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(e) Je licha ya kunyimwa haki yake ya kujiamulia, ni matatizo yapi mengine yanayoweza kumukumba mke anayelazimishwa kurithiwa?
(alama 3)

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(f) Eleza maana ya maneno yafuatayo jinsi yalivyotumiwa katika muktadha. (alama 3) Kushamiri

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Hulka
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Azma
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MUKHTASARI (Alama 15)

Soma taarifa ifuatayo kasha ujibu maswali yatakayofuata.

Binadamu hupenda kujivika vilemba vingi mno. Tunapenda kuheshimiwa na kutukuzwa na kila mtu. Tunapenda kuombwa ushauri na wote ambao wanahitaji ushauri! Tunapenda kutambuliwa popote tuendapo.

Watu wengi hukataa kufanya jambo la halali kwa kuhofia kuitwa wajinga. Mfano mzuri ni pale ambapo mtu amekosea kidogo katika kutenda jambo; utaona kuwa mtu huyo anaona ugumu wa kuomba radhi au samahani ati kwa sababu ataonekana mjinga.

Je, ni mara ngapi mkurugenzi ameita mkutano na katika barua yake akatisha kuwaadhibu watakaochelewa na mwishowe ni yeye mwenyewe anayechelewa? Tena huwa haombi msamaha. Ataulaumu usingizi uliomchukua, au gari lililomleta.

Aghalabu tunapowakuza watoto wetu, tunawafunza maadili mema. Tunawahimiza wale wadogo kwamba ni vizuri kuomba radhi kwa wakubwa wako unapowakosea. Lakini kumbuka kwamba kukosea ni kwa binadamu wote. Mtu anaweza kukukosea kwa makusudi au kwa bahati mbaya. Kwa hivyo tunapaswa kufahamu kwamba, tunapofanya makosa ni lazima tuombe msamaha, iwe ni kwa wakubwa au kwa wadogo, ili kuondoa kero.

Waja wengi huogopa kusimama mbele za watu na kuwasilisha au kutenda jambo fulani. Kisa na maana, mtu hataki kutenda jambo fulani halafu akosee. Hajiamini na anaogopa kuwa huenda watu wakaona kasoro yake. Lakini kumbuka, kukosa njia ndiko kuijua.

Huenda ikawa watu wanajadili maswala ibuka kama vile ufisadi, kuavya mimba, matumizi ya dawa za kulevya, ukimwi, uzuiaji wa kizazi na kadhalika... labda huyaungi mkono maoni ya watu wengine kwa sababu ya imani na maadili yako. Hata hivyo, hutaki kusimama ukatoa msimamo wako mbele za watu ingawa dhamiri yako imekwazika. Baadaye utasikika ukiwalaumu watu wengine ilhali ulikataa kusimama na kutetea msimamo wako.

Wengi wetu hujichukua kuwa watu muhimu sana. Wanaona kuwa sherehe au mkutano wowote hauwezi kufaulu ikiwa wao hawako. Wanapokuwa kwenye hiyo mikutano wao hutaka watambuliwe. Hupenda majina yao yatajwe. Haya huwaridhisha , lakini swali ni je, kuwepo kwao ni muhimu kiasi hicho? Kumbuka kwamba mkutano ungeendelea vizuri bila kuwepo kwao. Kwa hivyo, tusiwe watu wa kutaka kutambuliwa kila tunapoenda mahali. Pia, tusilalamike ikiwa hatukuhusishwa katika jambo fulani.

Unaposhuhudia jambo fulani, kama wizi au ajali, usiwe na woga wa kutoa usaidizi kwa kutoa ushuhuda. Wengine hata huogopa kutoa usaidizi huo, hata kwa manusura wa ajali za barabarani, eti kwa sababu wanahofia kuitwa mahakamani kutoa ushuhuda. Kuna shida gani kuenda kusema yale uliyoyashuhudia bila kuongeza au kutoa chochote?

MASWALI

a) Bila kupoteza maana, fupisha aya ya kwanza hadi ya nne.(maneno

60) (alama 7)

Nakala chafu:

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Nakala safi:

b) Fupisha aya nne za mwisho. (maneno 50)

(alama 8)

Nakala chafu.

Page 198 of 295

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Nakala Safi.

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MATUMIZI YA LUGHA (Alama 40)

a. Taja tofauti iliyopo kati ya sauti /f/ na /v/ (alama 1)

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b. Andika sentensi ifuatayo ukitumia kinyume cha neno lililoandikwa
kwa herufi ya mlazo: (alama 1)

Binadamu hawezi *kumuumba* mwenzake.

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c. Andika sentensi ifuatayo upya ukizingatia kisawe cha neno
lililopigwa mstari: (alama 1)

Mtoto mwenye hamaki hawezi kuelewa maagizo.

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d. Andika kwa usemi halisi: (alama 3)

Yule mshukiwa aliyekamatwa na polisi alisema kuwa papo hapo ndipo alipoficha ule mkufu.

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e. Tunga sentensi inayoshirikisha nomino uliyopewa pamoja na vipashio vifuatavyo vya sarufi: kivumishi kisisitizi, kitenzi kishirikishi, kitenzi, na kielezi cha wakati.(alama2)

Pinde

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f. Sahihisha sentensi zifuatazo :

(i)Ndegwa alipeana kalamu yake kwa mwanafunzi. (alama 1)

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(ii)Siku hizi mahitaji imezidi na pesa haitoshi. (alama 1)

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g. Tunga sentensi mbili kubainisha maana mbili tofauti za neno:
rudi. (alama 2)

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h. Akifisha: (alama 2)

Mtume asimame nusura aingie kwenye shimo la taka

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i. Unda nomino kutokana na kivumishi:**refu** (alama 1)

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j. Onyesha chagizo katika sentensi ifuatayo: (alama 1)

Watu wanne walipeperushwa juu kwa juu na upepo mkali.

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k. Tunga sentensi ukitumia: **isije ikawa** (alama 2)

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l. Andika upya sentensi ifuatayo ukitumia virejeshi vya tamati:

(alama 2)

Mwanafunzi anayefanikiwa maishani ni yule anayesoma kwa bidii
na pia anayewatii wazazi wake.

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m. Ainisha viambishi awali na tamati katika sentensi: **Anikumbukaye**

(alama 2)

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n. Kanusha kwa udogo: Mwizi aliiba kikapu na ng'ombe. (alama 2)

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o. Andika umoja wa sentensi: (alama 1)

Kwato za wanyama hutufaidi.

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p. Andika kwa wingi : (alama 4)

Wimbi hilo la maji lilimhofisha mvuvi akashindwa kutupa wavu wake majini.

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q. Andika katika hali ya kutendewa: (alama 2)

Kuku hawa wamemsumbua Sabina kwa muda mrefu.

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r. Tumia sentensi moja moja kubainisha tofauti kati ya sentensi **sahili** na sentensi **ambatano** (alama 2)

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s. Changanua sentensi ifuatayo kwa njia ya mistari au mishale:

Mwanasiasa aliyewapuuza wanaeneo bunge lake amekomelewa.

(alama 4)

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t. Andika katika usemi wa taarifa. (Alama 2)

“Karibu Bakari, tafadhali kaa”, Maimuna alisema. “Asante, je, habari za nyumbani?” Bakari aliuliza.

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u. Taja aina ya yambwa iliyopigiwa mstari katika sentensi uliyopewa:

(alama 1)

Mpishi amempikia mgeni wali vizuri.

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ISIMUJAMII (Alama 10)

(a)Taja nadharia zozote mbili zinazohusiana na chimbuko la lugha ya Kiswahili. (alama 2)

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(b) Kwa kutolea mifano, eleza sifa zozote nne za kimsingi za sajili inayoweza kutumika darasani. (alama 8)

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FORM 3 END TERM 1 SERIES 2 EXAMS

JINA:

SHULE:

NAMBARI YA USAJILI:**TAREHE:**

MTIHANI WA MWISHO WA MUHULA WA KWANZA

KISWAHILI KIDATO CHA TATU

KARATASI YA TATU (FASIHI)

MUDA; SAA 2¹/₂

MAAGIZO: Jibu maswali yote katika karatasi hii

SEHEMU YA A: TAMTHILIA YA KIGOGO

1. “Do! Do! Simameni! Simameni! Leo kutanyesha mawe!

a) Eleza muktadha wa dondoo hili. (al.4)

b) Fafanua mbinu za lugha z ilizotumika katika dondoo hili. (al.4)

c) Fafanua sifa sita za msemaji. (al.6)

d) Eleza umuhimu wa msemaji. (al.2)

e) Fafanua maudhui yoyote mawili yanayojitokeza katika dondoo. (al.4)

2. Fafanua matatizo yoyote kumi yanayowakabili wanasagamoyo.

(al.20)

SEHEMU YA B: FASIHI SIMULIZI.

3. a) Eleza umuhimu wa nyimbo katika usimulizi wa hadithi. (al.4)
b) i) Eleza maana ya misimu. (al.2)
 ii) Taja mifano yoyote miwili ya misimu. (al.2)
c) Taja sifa tatu za vitanza ndimi. (al.3)
d) Taja sifa tatu za vitendawili. (al.3)
e) Fafanua umuhimu wa vitendawili. (al.6)

4. SEHEMU YA C: USHAIRI.

Soma shairi lifuatalo kisha ujibu maswali yote.

Akosaye shukurani, zako juhudi hajali,
Hata mfanyie nini, haoni huyo hajali,
Hata mpe milioni, matusi ndio stahili,
Aona huna akili, ni yeye ndiye mshindi.

Patia kila la shani, bure unajisumbua,
Takuona kama nyani, tena atakunyambua,
Akuona punguani, chochote hutaambua,
Usingoje shukurani, tenda wema wende zako.

Utafute kwa juhudi, bila kukata tamaa,
Mpe apate faidi, wala asipate njaa,

Hatachoka kukaidi, atakuletea baa,
Na mawazo yakujaa, maishayo hafikiri.

Mpe vyote vya haluwa, wenzako wamtamani,
Hatakupa ya muruwa, juhudi haioni,
Ataka kuzidishiwa, asubuhi na jioni,
Ufanyacho hathamini, aongeze ya karaha.

Si ndugu wala si mwana, si rafiki si jirani,
Shukrani kiwa hana, jua uko hatarini,
Hadharani tatukana, aulize ndiwe nani,
Ambe kama hajaona, kinyangarika kamawe.
Hebu yeye msaili, amepata toa nini?
Haweziye kukubali, kukupa hata thamani,
Ni bure wake ukali, akutia mashakani,
Yake wala hayaoni, mwovu hana shukurani.

Mfadhili watengaje, jana alikuopoa,
Mwaema wambwekeaje, mabaya wayachokoa,
Mzazi wadharauje, mbali alishakutoa,
Sasa jaribu kupoa, ujifunze shukurani.

Maswali

1. Lipe shairi hili anwani mwafaka. (al.1)
2. Hili ni shairi la aina gani? Thibitisha. (al.2)
3. Eleza dhamira ya mshairi katika shairi hili. (al. 2)
4. Bainisha mifano mitatu ya uhuru wa mshairi katika shairi hili. (al.6)
5. Andika ubeti wan ne kwa lugha nathari. (al. 4)
6. Taja na utolee mfano tamathali zozote mbili za usemi katika shairi.
(al.4)
7. Eleza maana ya neno hili kama lilivyotumika katika shairi hili. (al1)

Shani

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FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: DATE:

ADM NO: STREAM.....

MATHEMATICS

FORM 3 PAPER ONE

END TERM ONE

2hrs 30min

SECTION A: ATTEMPT ALL THE QUESTIONS

1. Evaluate

$$-\left(\frac{32 \div 4 \text{ of } (-4) \times 6 + 28}{-40 \div 5 \times 2}\right)$$

(4mks)

2. The angle of depression of a hen on a horizontal surface on the ground to a crow perched on top of a building is 28 degrees. The building is 8m tall vertically. When the hen sees the crow, the hen moves directly towards base of the building to a point such that the angle of elevation of the crow from B is 32° .

Calculate the distance hen moved.

(3mks)

3. Simplify the expression.

(3 marks)

$$15a^2b \square 10ab^2$$
$$3a^2 \square 5ab \square 2b^2$$

4 The position vectors of points P and Q are

$$OP = \begin{pmatrix} 3 \\ 4 \\ -6 \end{pmatrix} \text{ and } OQ = \begin{pmatrix} -5 \\ -1 \\ 2 \end{pmatrix}$$

Find the position vector of point X, which divides line PQ internally
in ratio, 2:3 (3mks)

5 Three Villages X,Y and Z are such that y is 12 km south of X and Z is 15km from X..Village. Z is on a bearing of 330^0 from Y. Calculate the bearing of Z from X. (3mks)

6 A line AB is formed by coordinates A (1,2) and B (4,6). Another line 2 is the perpendicular bisector to line AB/. Find the equation of line 2. (3mks)

7 Ann bought four pens and three exercise books for a total of sh.17 while peter bought five pens and two similar pens and two exercise books for a total of sh.16.

Find the cost of a pen and an exercise book (3mks)

8 Three villages are situated such that they form 3 sides of a triangle. The distance of villages P to R is 40km while R to Q is 60km. When represented on a paper angle PRQ is 78° . Find the distance of village P to Q.

(4mks)

9 A water tank is cylindrical in shape is filled by a pipe p in 6 hours. This same tank is emptied when filled in 12 hours by a pipe. When someone starts with the tank empty, both pipes are opened at the same time and then pipe Q turned off after 4 hours. Find

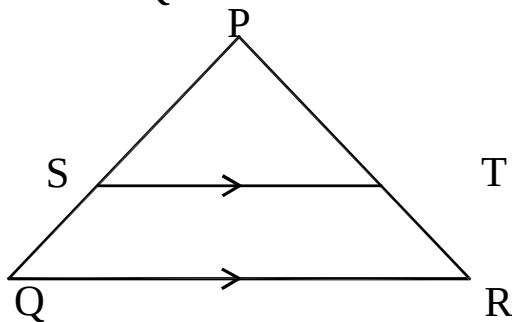
The time taken to fill the tank.

(3mks)

10 The figure below shows triangle PQR in which $PR = 12\text{cm}$. T is a point on PR such that $TR = 4\text{cm}$.

Line ST is parallel to QR. If the area of triangle PQR is 336cm^2 . Find the area of the quadrilateral STQR.

(4 marks)



11 Kamau spent $\frac{3}{5}$ of his money on buying food, and $\frac{1}{2}$ of what was left on rent. After that, he finds that he has sh.1400 left in his pocket.

Determine the amount money spent on buying food. (3mks)

12 Find the centre of enlargement if P(0,-1) is the image of P(2,3) under enlargement scale factor 3 (3mks)

13 Use the reciprocal tables to evaluate to determine 3 decimal places,

(4mks)
$$\frac{2}{0.4821} - \frac{3}{24.71}$$

14. A bank in Kenya buys and sells foreign currencies as follows.

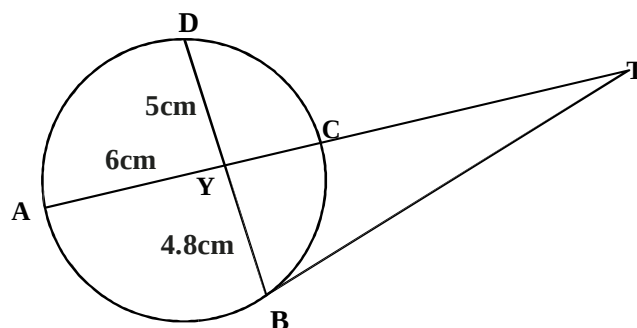
Currency	Buying	Selling
1 Sterling	134.20	134.65
1 US dollar	71.40	71.84

A tourist arrived in Kenya with \$4500. He converted all the dollars to Kenya shillings at the bank, while in Kenya he spent Kshs 215,000 and then converted the remaining amount in Kenya shillings to sterling pound.

Calculate the amount he received in sterling pound. (3mks)

15 Three students shared a certain amount of money. The first got sh.120 more than the second thrice what the third student got. If the second got sh.300, how much did each of the other two get? (3mks)

16. In the figure below, BT is tangent to the circle at B. AYCT and BYD are straight lines. $AY=6\text{cm}$, $CT=8\text{cm}$, $BY=4.8\text{cm}$ and $YD = 5\text{cm}$



Find length of:

i) CY

(2 marks)

ii) BT

(2 marks)

SECTION B: ATTEMPT ANY FIVE QUESTIONS IN THIS SECTION

17 Three points P, Q and S are pm the vertices of a triangular plain field. P is 400m from Q on a bearing of 300^0 and R of 550m directly south of P.

(a) Using a scale of 1 cm to represent 100m on the ground, draw a diagram to show the position of the points. (3mks)

(b) Use the scale drawing to determine;
(i) The distance and bearing of Q from R. (3mks)

(ii) The bearing and distance of point S from P given that point S is directly 600m East of R. (3mks)

(iii) The bearing and distance of Q from S. (3mks)

18 A bus travelling at a speed of 80km/hr left Mombasa at 8.00am for Nairobi. Two hours later, a car travelling at a speed of 100km/hr left Nairobi for Mombasa.

Given that the distance between both cities is 500km, find the: -

i) distance covered by bus at the time the car is starting. (1mk)

ii) Distance between the two vehicles at the time the is starting
(1mk)

iii) Relative speed of the two vehicles (1mk)

iv) Time taken for the two vehicles to meet (2mks)

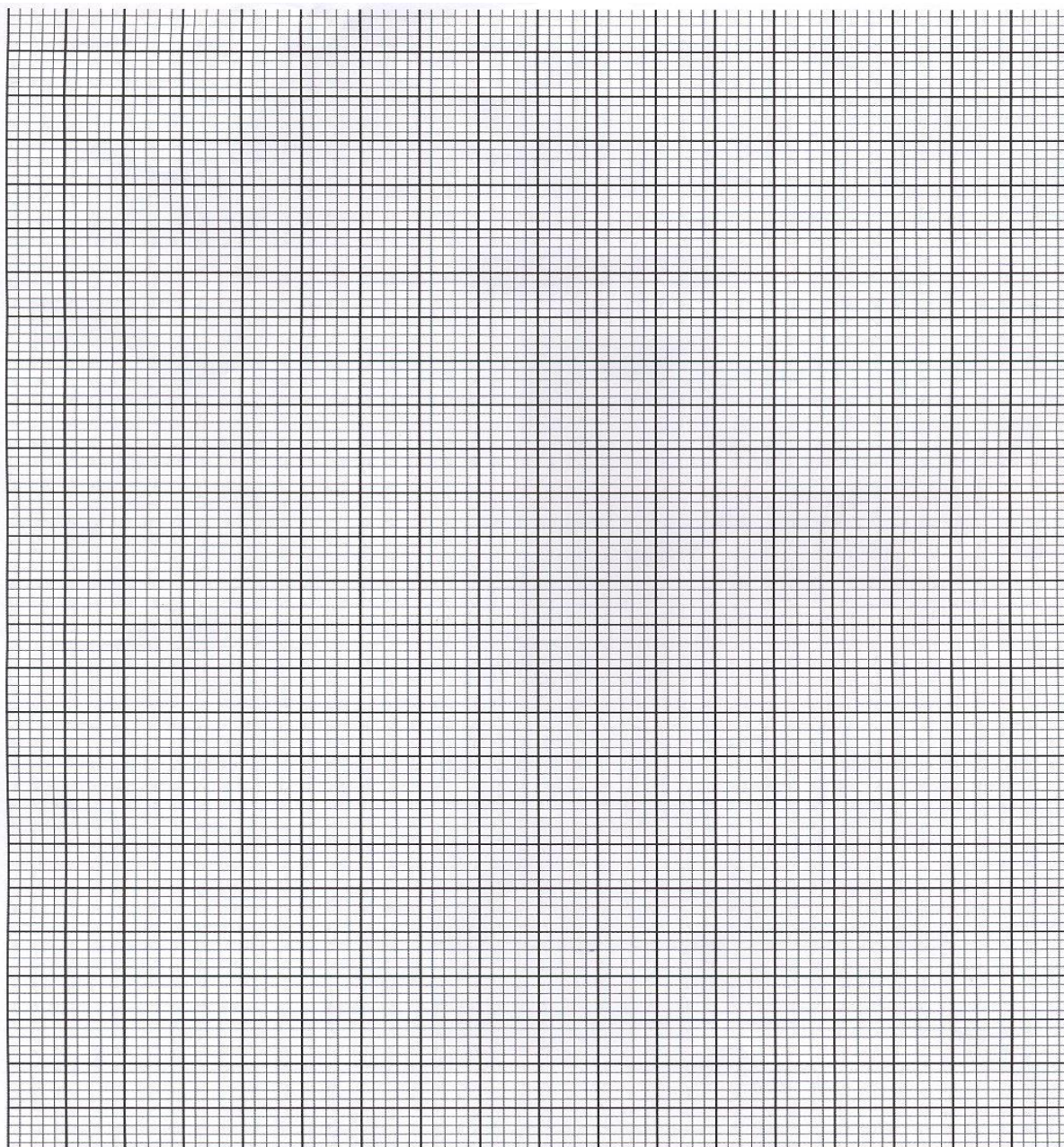
v) Time the met. (1mk)

vi After meeting, the speed of both vehicles dropped to 60km/hr due to traffic jam. At what time did each vehicle arrive at its destination? (3mks)

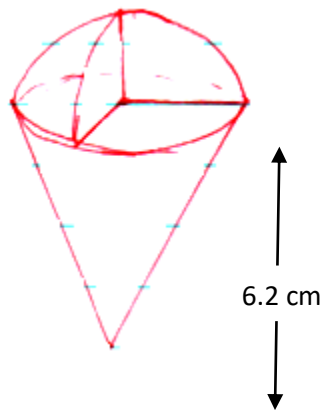
19 The kite shown on the fig below has vertices, $A(-2,4)$ $B(5,7)$ $C(7,4)$ $D(5,1)$. The kite ABCD is rotated about the origin through -90° to obtain its first image $A'B'C'D'$. The kite $A'B'C'D'$ is then reflected along the line $x = 0$ to obtain $A''B''C''D''$. Find

(a) The equation of the Mirror line that reflects point A to itself, B on to D and C onto itself

(b) Draw a kite A'B'C'D and state its coordinates.



20 A given solid is made up of a cone and three quarters of hemisphere as shown in the diagram below .The radius and vertical height of the cone are 4cm and 6.2 cm respectively

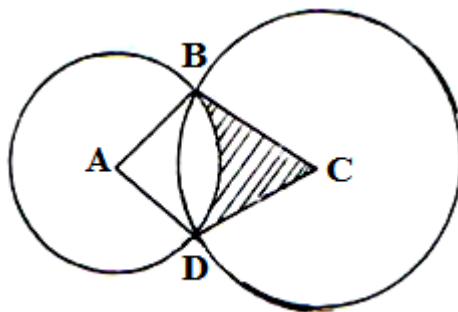


- a. Calculate the volume of the solid (4mks)

b. Calculate the surface area of the solid (4mks)

c. The material used for making the solid costs shs 40 per cm^3 . What is the cost of making ten such solids (2mks)

21 In the diagram below, two circles, centres A and C and radii 7cm and 24cm respectively intersect at B and D. $AC = 25\text{cm}$.



(a) Find angle $ABC = 90^\circ$.

(3mks)

(b) Calculate

(i) the size of obtuse angle BAD

(3mks)

(ii) the area of the shaded part

(4Mks)

(a) Find the area of the farm in hectares

(3mks)

(b) Karis wishes to irrigate his farm using a sprinkler machine situated in the farm such that it is equidistant from points A, B and C.

(i) Calculate the distance of the sprinkler from point C (2 Marks)

(ii) The sprinkler rotates in a circular motion so that the maximum point reached by the water jets is the vertices A, B and C.

Calculate the area outside his farm that will be irrigated.(3 Marks)

22. Two lines $L_1=2y-3x-6$ and $L_2=3y+x-20=0$ intersect at point A.

a. Find the coordinates of A **(3marks)**

i. A third line L_3 is perpendicular to L_2 at point A. Find the equation of L_3 in form of $y=mx+c$, where m and c are constants. **(3marks)**

b. Another line L_4 is parallel to l_1 and passes through $(-1,3)$.

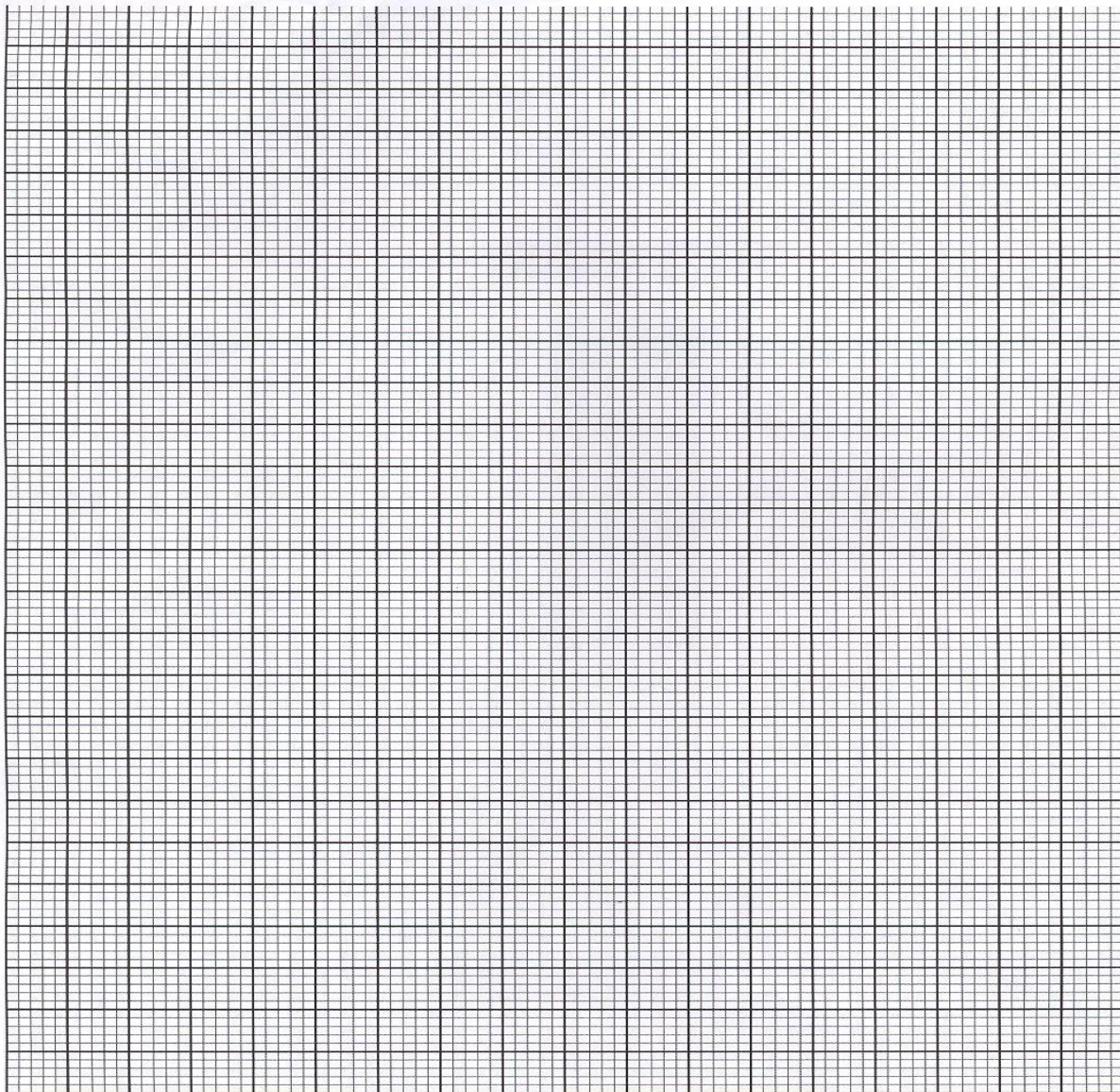
Find the x-intercept and the y-intercept of L_4 . **(4marks)**

23 (a) PQRS is a quadrilateral with vertices $P(1,4)$, $Q(2,1)$, $R(2,3)$ and $S(6,4)$. On the grid provided, plot the quadrilateral. **(2mark)**

(b) Draw $P'Q'R'S'$ the image of PQRS under a positive quarter turn about the origin and write down its co-ordinates. **(3 marks)**

(c) Draw $P''Q''R''S''$ the image of $P'Q'R'S'$ under an enlargement scale factor -1 and center $(0,0)$ and write down its co-ordinates. **(3 marks)**

Determine the single transformation that maps PQRS onto $P''Q''R''S''$ **(2marks)**



24. The heights of 40 pupils in a class were measured to the nearest centimeter and recorded as below.

17	154	157	180	165	150	152	16
17	168	169	181	177	179	175	16
15	153	156	158	163	169	179	18
14	149	150	156	171	175	176	17
16	160	155	174	170	176	182	17

- a) Use the class interval of 5 to group the data start from 145-149, 150 - 154 . . . (3 marks)

b) Estimate the mean

(4 marks)

c) Calculate the median height of the class.

(3 marks)

FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: DATE:

ADM NO: STREAM.....

MATHEMATICS

FORM THREE PAPER 2

END TERM ONE

TIME $2\frac{1}{2}$ HOURS

1. Find all the integral values of X Which satisfy the following inequalities. $2x-7 < x + 2 \leq 2(x-2)$ (4MKS)

2. Using method of completing the square, find the values of x that satisfies the quadratic equation below. $x^2 + x - 6 = 0$
(3mks)

3. A triangle PQR is such that $\angle PQR = 60^\circ$ length QR = 600cm and length QP = 540cm. Find the area of triangle PQR and leave your answer in M^2 (3mks)

4. Use logarithms tables to evaluate $\sqrt[3]{\frac{239.5 \times 0.004832}{\sin 30^\circ}}$
(4mks)

5. Juma, Ali and Choge are three masons together to complete building a stone wall together in 12 hours. Juma and Ali working together complete the work in 18 hours while Juma and Choge working together complete the work in 24 hours. For how long each would take to complete building of the stone wall while alone.
(3mks)

6. Find the value of X that satisfy the equation

$$\text{Log } (x + 5) + \log (x + 2) = \log 4$$

(3mks)

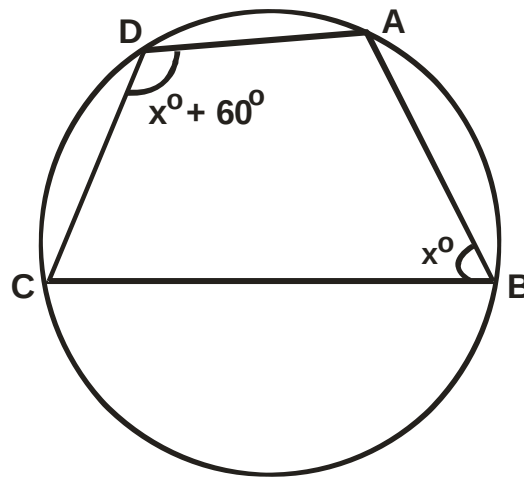
7. Simplify $\frac{X}{x+2} + \frac{3X-2}{X^2-4}$

(2mks)

8 Without using a calculator or mathematical tables, express $\frac{\cos 30^\circ}{45^\circ + \sqrt{3}}$ in surd form and Tan

simplify leaving your answer in the form $a+b\sqrt{c}$ where a, b and c are rational numbers. (3mks)

9 The figure below shows a quadrilateral ABCD which is cyclic. Solve for x. (3MKS)



10 Two cyclists moving towards each other take two hours to meet. If one cycles at a speed of 25km/h and the other at Y km/hr, find the value of Y if their distance apart is 92km. (3mks)

11 Using a ruler and a pair of compass only construct a triangle in which AB is 7cm and BC=9cm and angle BAC = 75° measure AC. Construct an inscribed circle in triangle ABC and measure its radius 4mks

12 Given that $\cos (x - 20)^\circ = \sin (2x + 32)^\circ$ and x is an acute angle. Find $\tan (x - 4)$ (3mks)

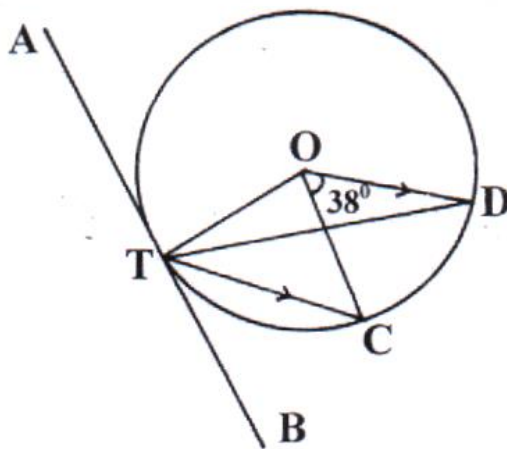
13. Given that $\frac{3}{3+\sqrt{5}} + \frac{3\sqrt{5}}{3-\sqrt{5}} = a+b\sqrt{5}$. Find the values of **a** and **b**

(4mks)

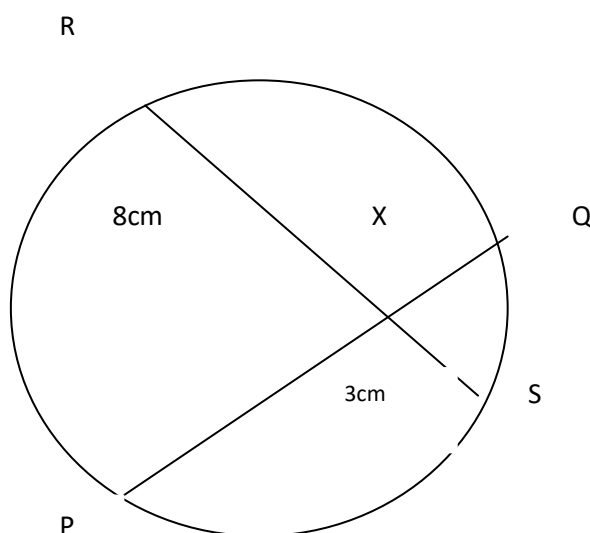
14 In the figure below, O is the centre of the circle which passes through the points **T**, **C** and **D**. Line **TC** is parallel to **OD** and line **ATB** is a tangent to the circle at **T**. Angle **DOC** = 38° . Calculate the size of angle

CTB

(3mks)



15. In the circle below chords **PQ** and **RS** intersect at **X**. Given that **RX** = 8cm, **XS** = 3cm and **PQ** = 10cm. Calculate **PX** (2mks)



16 The length and width of a rectangular window pane measured to the nearest millimeter are 8.6cm and 5.3 respectively.

Find to four significant figures. The percentage error in the area of the windowpane. 3mk

DO FIVE QUESTIONS IN SECTION B

17 Using a ruler and a pair of compasses only, draw a parallelogram ABCD, such that angle $DAB = 75^{\circ}$. Length $AB = 6.0\text{cm}$ and $BC = 4.0\text{cm}$. From point D, drop a perpendicular to meet line AB at N.

(7 Marks)

(i) Measure length DN

(1 Mark)

(ii) Find the area of the parallelogram.

(2 Marks)

18 The table below shows income tax rates in the year 2013.

A constable earned a monthly salary of ksh. 42500 , house allowance of 10,000. Travelling allowance of 5000.

Monthly Income in Ksh	Tax rate in each shilling
Up to 9680	10%
9681-18800	15%
18801 – 27920	20%
27921 – 37040	25%
Over 37040	30%

In that year, a monthly personal tax relief of ksh 1056 was allowed.

Calculate the monthly

a) taxable income (2mks)

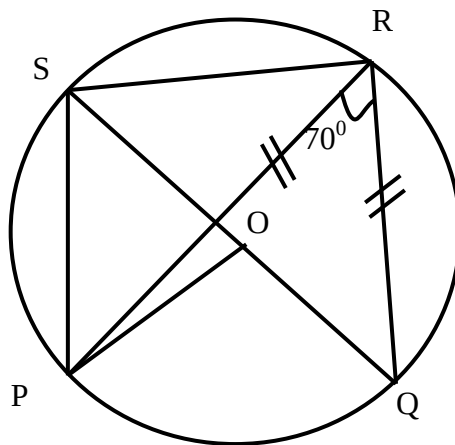
b) Tax due (3mks)

c) Payable tax

(1mk)

d) Net pay of the constable 4mks

19 The figure below shows a circle centre O, PQRS is a cyclic quadrilateral and QOS is a straight line.



Giving reasons for your answers, find the size of

(a) Angle PRS (2 Marks)

(b) Angle POQ (2 Marks)

(c) Angle QSR (3 Marks)

(d) Reflex angle POS (3 Marks)

20 A group of people planned to contribute equally towards a water project which was to cost Ksh 2000,000 to complete. 40 members of the group withdrew before the project started. Hence the remaining members had to contribute Ksh. Using x as the original no. of members,

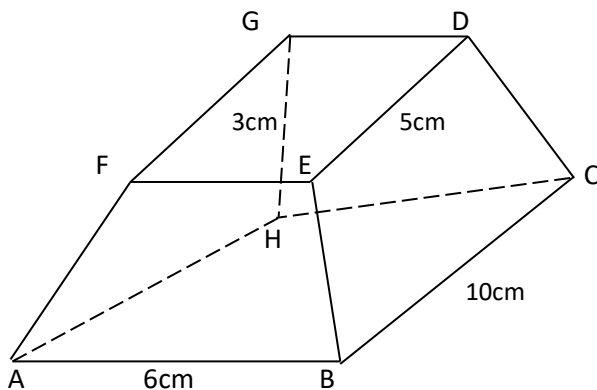
a) Form expressions to show the original and the new contribution for each member. 2 mks

b) Form a quadratic expression to represent the information above (no. 24) (2mks)

c) find the original number of members 3mks

- e) d) luckily, 45% of the value of the project was funded by CDF.
Calculate amount contributed by each member (3mks)

21 The figure below shows a frustum of a right pyramid whose top face is a rectangle of side 3 cm by 5 cm and the bottom face is also a rectangle of side 6 cm by 10 cm. The perpendicular distance between the top and bottom faces (height) is 25 cm.



Find;

- (a) the height of the chopped off pyramid (2marks)

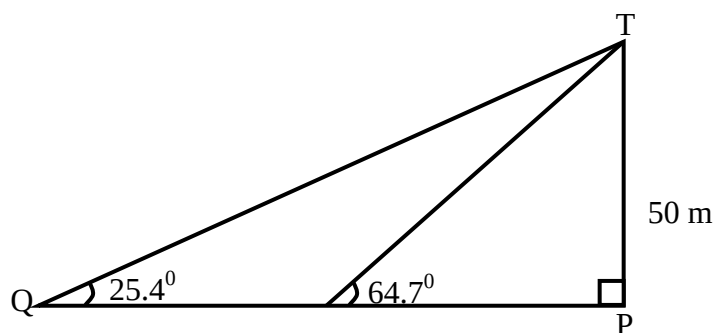
b the volume of the frustum

(4mark

(c) The surface area of the frustum.

(4marks)

22 The figure below shows the position of a boat Q which is observed sailing directly towards the pier P at the base of a vertical cliff PT. The angle of elevation of the top of the cliff from Q is 25.4° . After 14 seconds the boat is at point R, and the angle for elevation of T is now 64.7° .



If the cliff is 50m high, calculate

(a) The distance PQ (2 Marks)

(b) The distance QR (4 Marks)

(c) The speed of the boat in km/h (4 Marks)

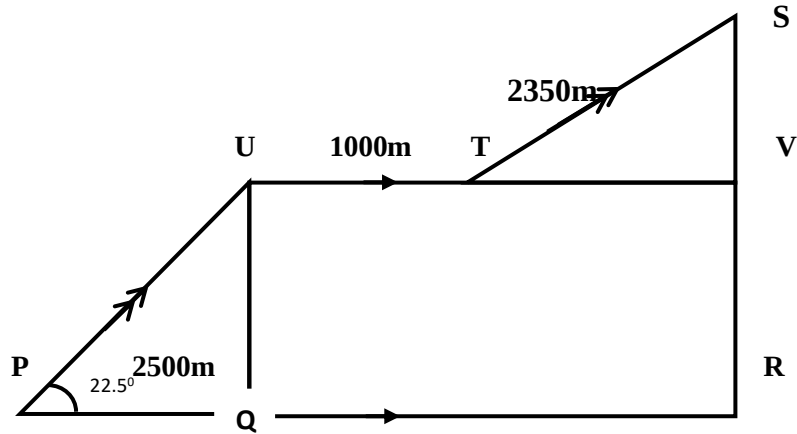
23 A surveyor recorded the measurements of a field book using XY=400m as the base line as shown below.

	Y	
To	320	E 200
	210	150 To D
To	170	F 250 150 To C
	50	225 To B
	X	100 To A

a) Use a scale of 1cm to represent 50m to draw the map of the field.
(5mks)

b) Find the area of the field in hectares (5mks)

24 In the figure below $PQ = 2500\text{m}$, $UT = 1000\text{m}$ and $TS = 2350\text{m}$. PQR is a straight line. Parallel to UT and angle $UPQ = 22.5^\circ$.



Calculate to the nearest meter

(a) (i) UQ (2marks)

(ii) TV (2marks)

(iii) VS (2marks)

(iv) P U

(2marks)

(b) Find the perimeter of the figure.

(2marks)

FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: DATE:

ADM NO: STREAM.....

PHYSICS PP1 FORM 3 END OF TERM 1 EXAM

INSTRUCTIONS

ANSWER ALL QUESTIONS IN THE SPACE PROVIDED.

1. 30cm^3 of petrol is mixed with 40cm^3 of kerosene. If the density of petrol is 0.70gcm^3 and kerosene is 0.80gcm^3 . Calculate the density of the mixture.
(3mks)

2. 60 drops of water are transferred to a beaker from a burette. The level of water in the burette fall from 17cm^3 mark to 20cm^3 mark. Calculate the volume of 1 drop of water
(3mks)

3. Name the forces acting on

i) A box resting on a bench

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ii) Between the wheels of a moving car and the road

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iii) On an object immersed in water

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iv) Between n- pole and s-pole of a magnet

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v) Between water poured on glass and the glass surface.

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4. (i) State two practical applications of friction force in our daily lives.(3mks)

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(ii) List three ways in which friction force can be reduced. (3mks)

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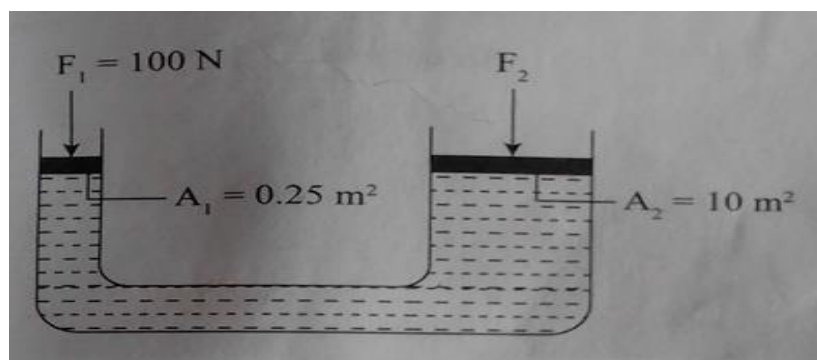
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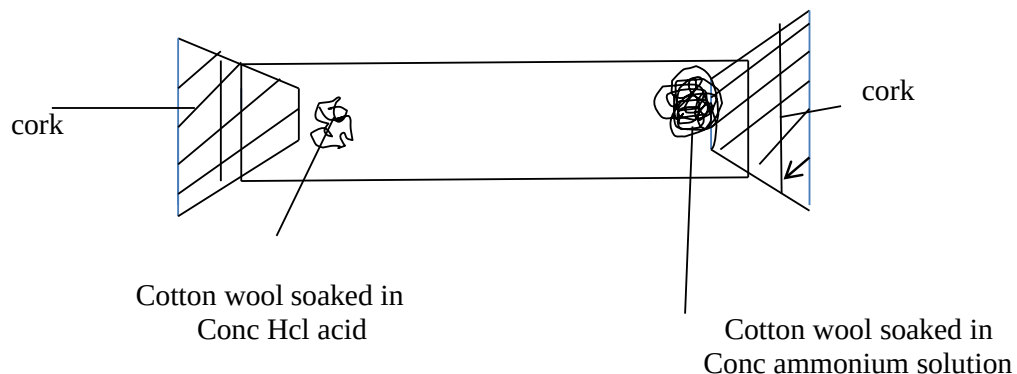
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5. The figure below shows a form of a hydraulic lift.



Using Pascal's principle, determine the forces F_2 on the small piston to lift the load. (4mks)

6. Study the set-up below and answer the questions that follows



a) What observation would be made in the tube after some time. (1mk).

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b) Indicate in the diagram the likely position where the observation stated in (a) above would take place. (1mk)

7. (a) when taking care of a lead acid accumulator, what must be done if the

(i) Density of the acid becomes too low. (1mk)

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(ii) Level of the acid becomes too low. (1mk)

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(b) An echo sound sends sound signals to the bottom of a lake and receives them back after 0.08s. Find the depth of the lake. (Take the speed of sound in water 1400m/s) (2mks)

8. The velocity of light in water is 2.2×10^8 ms and the velocity of light in a diamond is 1.24×10^8 m/s. Calculate

a) Refractive index of light passing from water to diamond. (3mks)

b) The critical angle for water is 48.6° . Calculate the refractive index of water. (2mks)

c) State the applications of total internal reflections.

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9. The figure below shows sound waves emitted by a drum struck.

Explain why the wave fronts are directed to the around (2mks)

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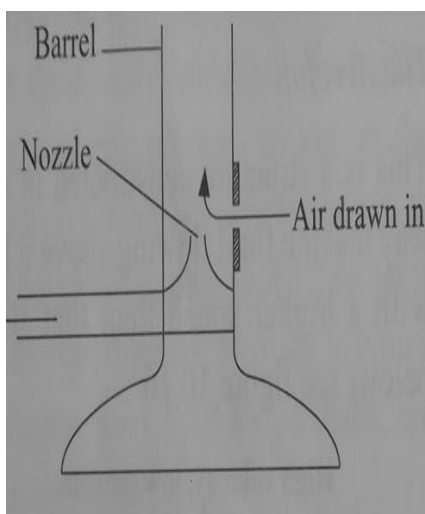
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10. A solid weighs 32.5N on the surface of the moon. The force of gravity on the moon is 1.7Nkg^{-1} . Determine the mass of the solid.

(3marks)

11. The figure below shows a Bunsen – burner.



Use the Bernoulli's principle to explain how air is drawn into the burner when the gas tap is opened. (3mks)

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12. Using a well labeled diagrams, show three states of equilibrium. 3mks

a) Define the moment of a force. (2mk)

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13. (a) What is a luminar flow? (1mk)

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(b) State two assumptions needed in derivation of equation of continuity.
(2mks)

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(c) State two effects of Bernoulli's principle. (2mks)

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14. (a) State Newton's first law of motion. (1mk)

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(b) Give a reason why it is important that passenger's in moving vehicles put on safety belts. (2mks)

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- (a) A boy of mass 60kg stands on a balance in a lift which is accerating upwards of 2m/s^2 , Find the balance reading. (3mks)

(b) State kinetic theory of matter. (1mk)

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© State the condition for total internal reflection to occur. (2mks)

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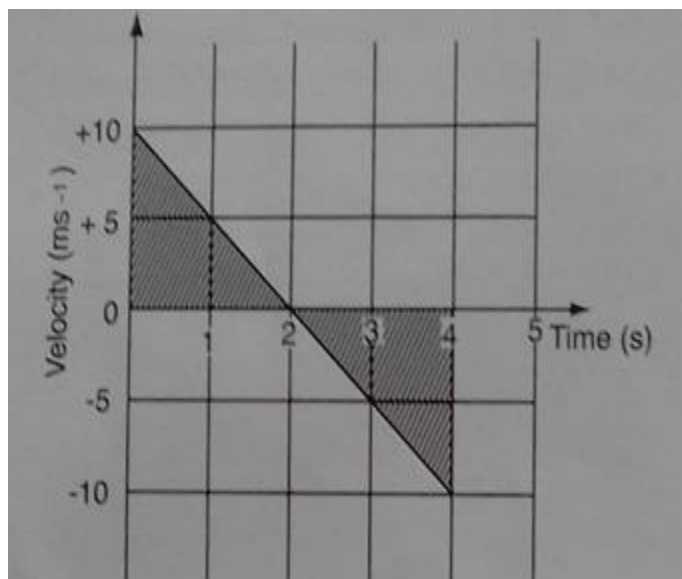
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15. A figure below shows a car decelerating uniformly from a velocity of 10m/s to rest in 2s .



If it takes 2s to reverse with uniform acceleration to its original starting point, determine the:

a) displacement of the car

2mkS

b) average velocity of the car

(3marks)

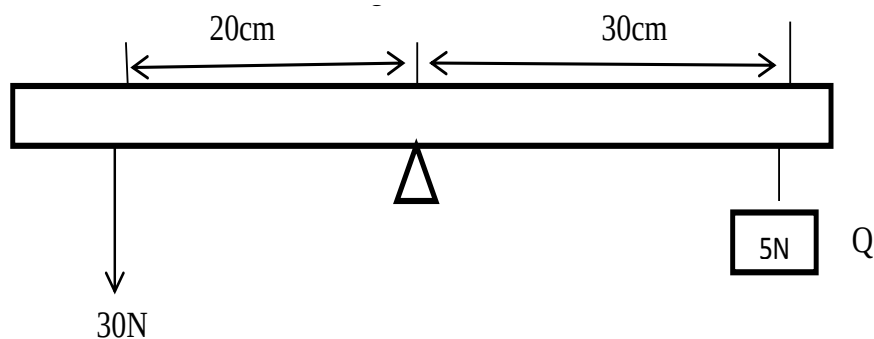
c) distance travelled by the car (3marks)

d) average speed of the car (2marks)

16. An object is placed 30cm from a concave mirror of focal length 20cm.
Calculate the magnification. (3mks)

(a) Explain why it is dangerous for a bus to carry standing passengers.
(2mks)

17. (a) A uniform metro rule is balanced at the centre of gravity by a force 30N, 5N and the magnetic force between P, and Q. P is fixed and Q has a weight



. Ignoring the weight of the metre rule, calculate the value of the magnetic force between Q and P. (3mks)

- (b) Given that the lower end of Q is North-pole, state the polarity of the end of P facing Q (1mk)

18. (a) Give a reason why water is not suitable as a barometric liquid.

(1mk)

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(b) Explain why a lift pump is unable to raise water from a borehole where the level of water is 20M below the ground level.

(2mks)

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c) State two reasons why gases diffuse faster than solids. (2mks)

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FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: **DATE:**



ADM NO: STREAM.....

**PHYSICS PP2
FORM 3
END OF TERM 1 EXAM
SECTION A: (25 MARKS)**

Answer ALL questions this section in the spaces provided.

1. What property of light is suggested by the formation of shadows?
(1mark)

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2. Why are audio recording hall walls covered with soft materials.(1mark)

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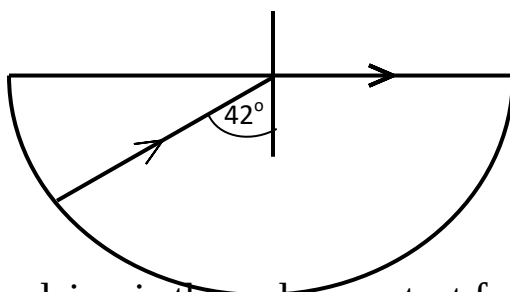
3. A highly negatively charged rod is gradually brought close to the cap of a positively charged electroscope. It is observed that the leaf

collapses initially and then diverges. Explain this observation.

(3marks)

4. The figure **below** shows a ray of light incident on a face of semicircular prism.

Determine the refractive index of the glass prism. (3marks)



5. Explain why repulsion is the only sure test for polarity of a magnet.

(1mark)

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6. State the use of manganese (IV) oxide in a dry cell. (1mark)

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7. A lamp of height 6cm stands in front of pin-hole camera at a distance of 24cm from the pin-hole. The camera screen is 8cm from the pinhole. Calculate the height of the image formed on the screen.

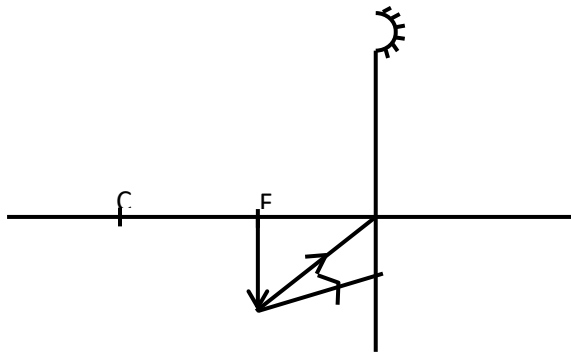
(3marks)

8. A car accumulator is rated 40Ah and is expected to supply a constant current for 120 minutes. Calculate the amount of current delivered.

(2marks)

9. The figure **below** shows two incident rays on a concave mirror from the top of an object.

Complete the ray diagram showing the reflected rays. (2marks)



10. An electric bulb rated 40W is operated on 240V mains. Determine the resistance of its filament. (3marks)

11. The force on a straight conductor carrying current in a magnetic field can be varied by changing, among others, the magnitude of the current and the magnetic field strength. Name the other factors that can be changed to vary the force. (2marks)

12.(i)Distinguish between transverse and longitudinal waves. (1mark)

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(ii) Give **one** example of a transverse wave and one example of a longitudinal wave. (2marks)

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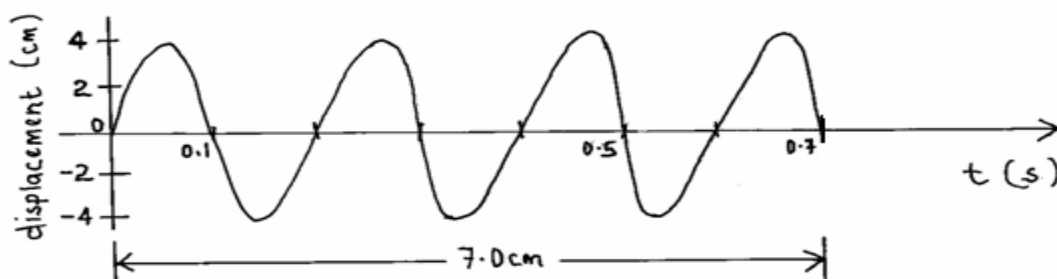
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SECTION B: (55 MARKS)

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

14. The diagram **below** represents a wave motion.



(i) What is the amplitude of the wave in metres. (1mark)

(ii) How many cycles are made. (2mark)

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(iii) Calculate the wavelength, λ , of the wave. (2marks)

(iv) Calculate the frequency of the wave. (2marks)

(v) Calculate the velocity of the wave. (2marks)

(b) (i) The echo sounder of a ship receives the reflected wave from a sea-bed after 0.2 seconds. What is the depth of the sea bed if the velocity of sound in water is 1450m/s. (3marks)

(ii) State **three** factors that affect the speed of sound in air. (3marks)

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15. (a) State **two** conditions necessary for total internal reflection to occur. (2marks)

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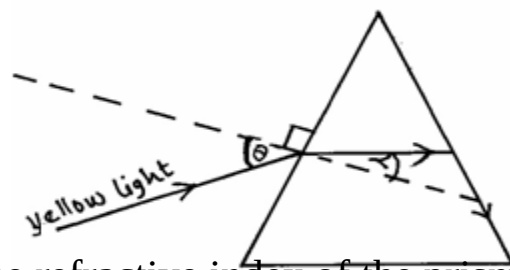
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(b) Define the term critical angle as used in refraction of light.(1mark)

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(b) The figure **below** shows the path of a ray of light through a glass prism. The speed of yellow light in the prism is $1.88 \times 10^8 \text{ m/s}$.



(i) Determine the refractive index of the prism material for the light
(speed of light in vacuum, $c = 3.0 \times 10^8 \text{ m/s}$. (3marks)

(ii) Show on the figure, the critical angle, c , and determine its value.(4marks)

(iii) Given that $r = 21.2^\circ$, determine the angle θ . (3marks)

16. (a) State the advantages of using a convex mirror as a driving mirror. (2marks)

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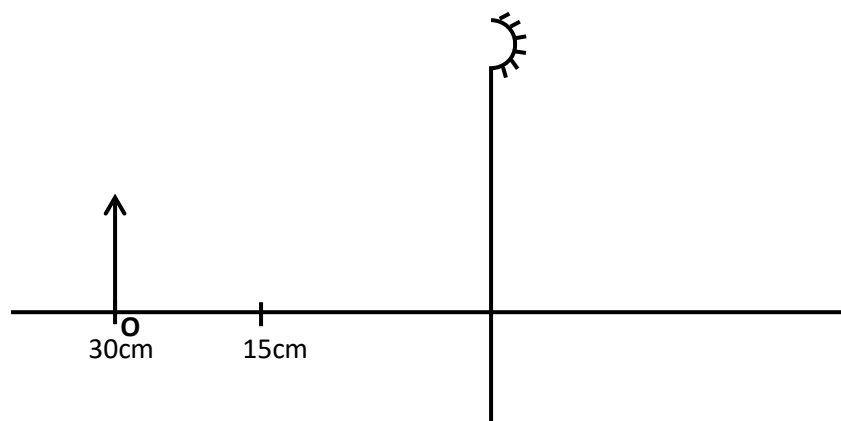
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(b) The figure **below** shows an object **O** placed in front of a converging mirror of focal length 15cm.



Draw on the figure a ray diagram to locate the image formed. (3marks)

(c) State why parabolic reflection is used in car headlights. 2mks

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17.(a) State **three** factors that affect the strength of an electromagnet.
(3marks)

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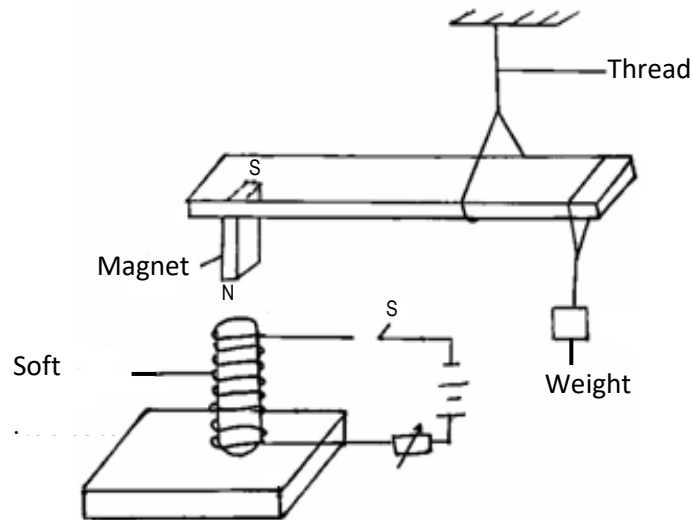
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(b) In the set up **below**, the suspended metre rule is in equilibrium balanced by the magnet and the weight shown. The iron core is fixed to the bench:



(i) State and explain the effect on the metre rule when the switch S, is closed. (2marks)

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(ii) What would be the effect of reversing the battery terminals? (2mark)

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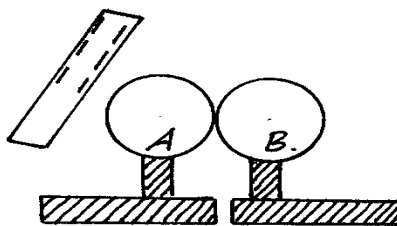
(c) The figure **below** shows two parallel current carrying conductors **A** and **B** placed close to each other. The direction of the current is into the plane of the paper.



On the same figure.

- (i) Sketch the magnetic field pattern. (2mark)
- (ii) Indicate the force F due to the current on each conductor (2mark)

18. Two identical spheres A and B each standing on an insulating base are in contact. A negatively charged rod is brought near sphere A as shown in figure below



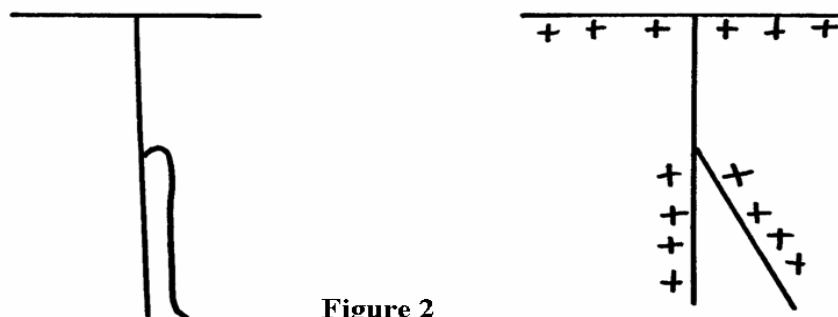
In what way will A differ from B if separated while the rod is near? Explain. (2mks)

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19. The figure 2 below shows two identical electroscopes. The one on the right is charged but the one on the left is not.



Show the charge distribution after the caps of the two electroscopes are connected by a thin conducting wire (2mk)

FORM 3 END TERM 1 SERIES 2 EXAMS

NAME:

SCHOOOL:

SIGN: DATE:

ADM NO: STREAM.....

232/3 PHYSICS Paper 3 (Practical)

Time: 2 ½ Hours

INSTRUCTIONS TO THE CANDIDATES:

- Write your **name** and **index number** in the spaces provided above.
- **Sign** and **write** the **date** of the examination in the spaces provided above.

- You are supposed to spend the first **15 minutes** of the **2 ½ hours** allowed for this paper reading the whole paper carefully.
- Marks are given for a clear record of the observation actually made, their suitability, accuracy and the use made of them

FOR EXAMINER'S USE ONLY

Question	Maximum Score	Candidate's Score
1	20	
2	20	
TOTAL	40	

QUESTION 1

Apparatus

Concave mirror on a lens holder

Screen

Metre rule

Candle

Proceed as follows;

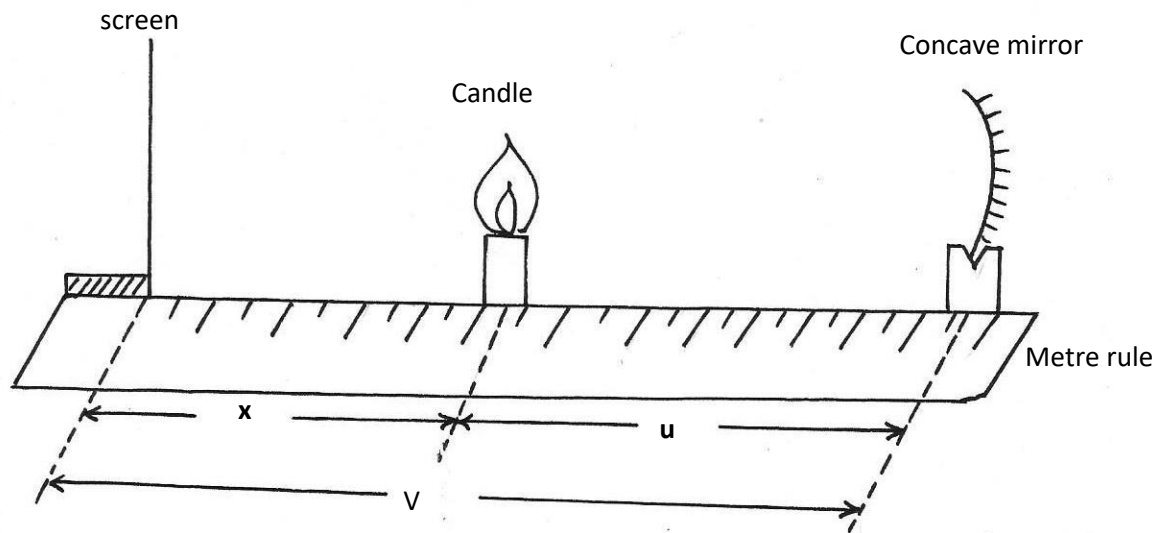
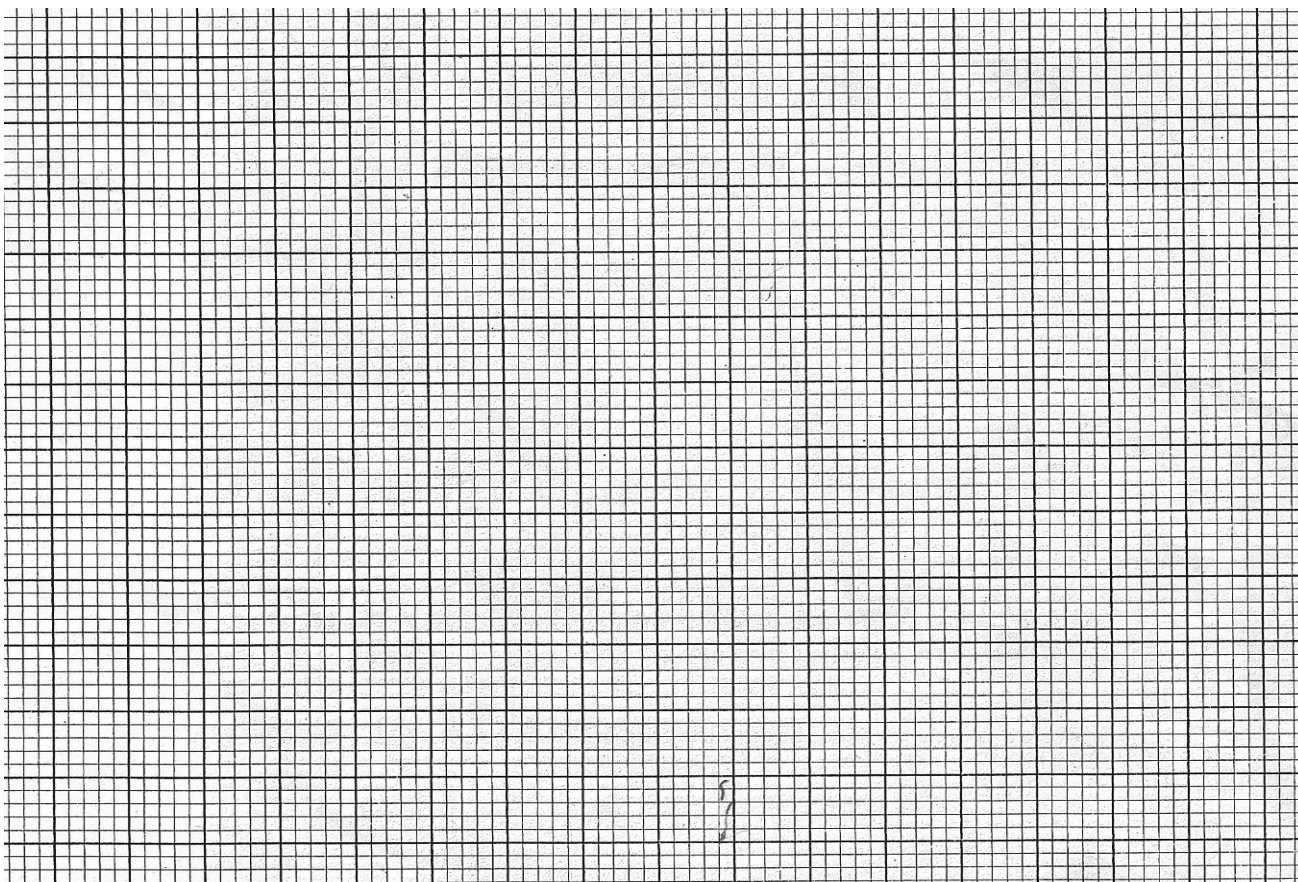


Figure 1

- (i) Set the apparatus as shown in fig 1
- (ii) Place the candle at a distance $x = 5.0\text{cm}$ from the screen
- (iii) Move the mirror to and from to focus a clear, sharp image of the candle on the screen
- (iv) Measure and record the distance u between the mirror and candle and the distance v between the screen and the mirror.
- (v) Repeat the experiment for other values of x and complete the table below (table 1)

X(cm)	5.0	10.0	15.0	20.0	25.0	30.0
U(cm)						
V(cm)						
(u+v) cm						
Uv(cm ²)						

(vi) Plot a graph of (u+v) (y axis) against uv (5mks)



(v) Determine the slope S of the graph (5mks)

(b) Using the value of S obtained in VII above, determines the value of f , the focal length of the mirror. (2mks)

(c) Given that $R = \frac{4f}{S^2}$ determine the value of R (2mks)

QUESTION 2

You are provided with the following

- An ammeter (0-1A)
- A voltmeter
- A wire mounted on a mm scale
- A switch
- A long wire with a crocodile clip at one end (crocodile clip to be used or a jockey)

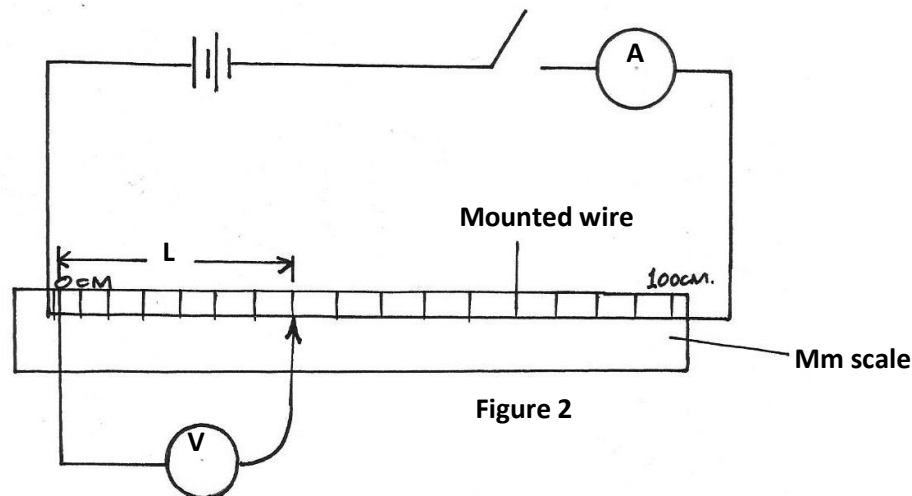
- 2 new size D dry cells and a cell holder
- A micrometer screw gauge (may be shared)
- Six connecting wires, two with crocodile clips at the end

Proceed as follows

(i) measure the diameter d of the mounted wire at 3 different points

Average diameter = mm (1mk)

(ii) Set up the apparatus as shown in the circuit diagram in fig 2



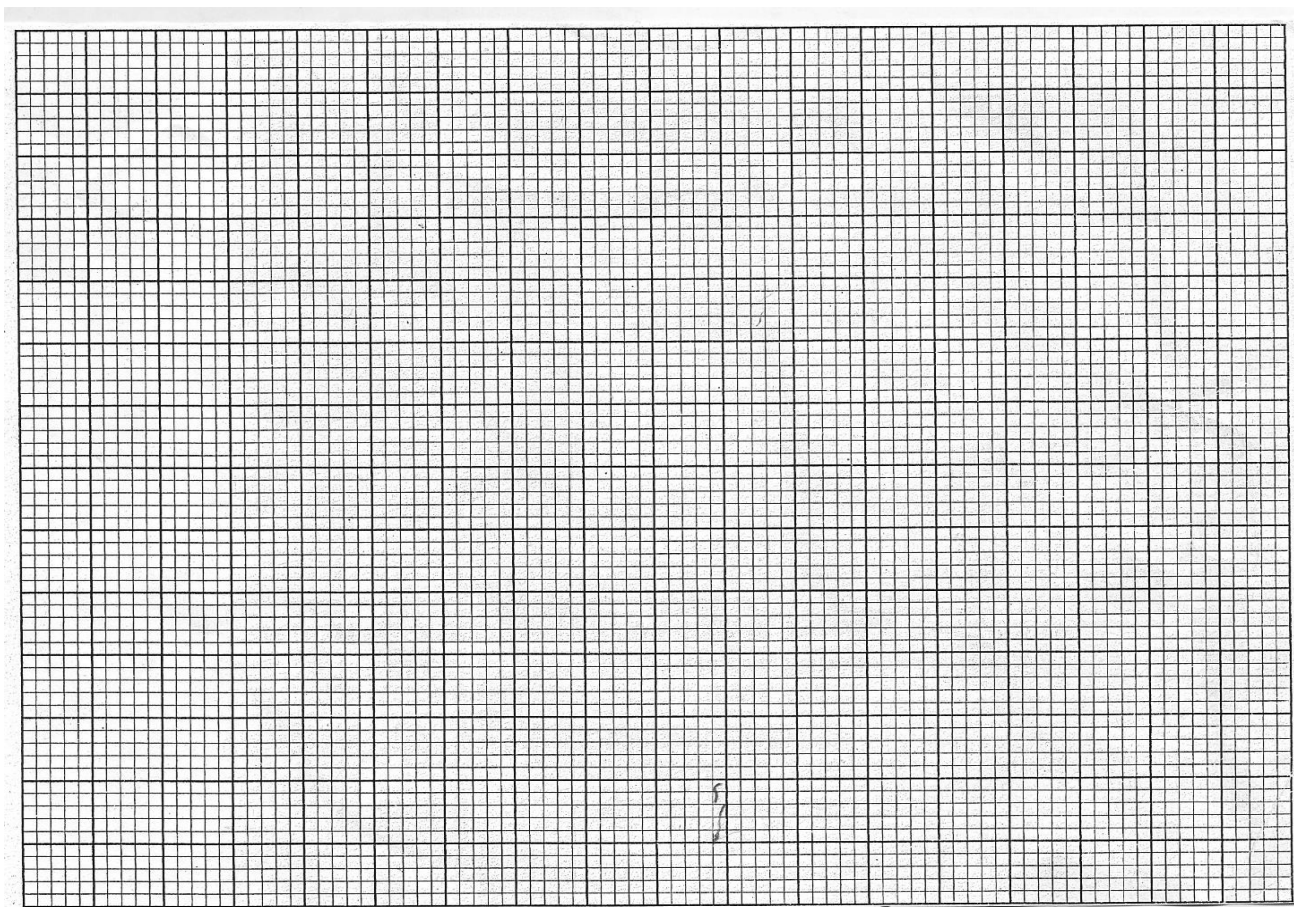
(iii) Close the switch and tap the mounted wire with crocodile chip as shown in the circuit. Ensure that both meters show possible deflection. Open the switch

(iv) Tap the wire at $L = 20\text{cm}$, close the switch, and record in the table provided the ammeter and the voltmeter reading.

(v) Repeat procedure in IV for the other values of L , shown in the table below and complete the table. (8mks)

L (cm)	L(m)	V(volts)	I	$R = \frac{V(\Omega)}{I}$
20				
30				
40				
50				
60				
70				
80				

(vi) Plot the graph of R (y-axis) against L cm (grid provided)



(a) Determine the slope of the graph

(3mks)

$$R = \underline{\ell}L$$

A

(b) Given that the $\frac{R}{A}$ where A is the cross sectional area of the wire and ρ is a constant for the material of wire. Determine the value of the constant ρ



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