BRILLIANT STUDENTS FORM 3 END TERM 1 SERIES 1 EXAMS *(ALL SUBJECTS TESTED)*



BRILLIANT STUDENTS FORM 3 END TERM 1 SERIES 1 EXAMS

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for Marking Schemes

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BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

443 /1 AGRICULTURE PAPER 1

FORM 3

TIME: 2HRS

INSTRUCTIONS

1. WRITE YOUR NAME CLASS AND ADMISSION NUMBER IN THE SPACES PROVIDE ABOVE.
2. ANSWER ALL QUESTIONS IN SECTION A AND B AND ANY TWO IN SECTION C.
3. ENSURE THAT YOUR QUESTION PAPER CONSIST OF THE THREE SECTIONS. SECTION A-30MKS, B-20MKS, C-40MKS.

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SECTION A (30 MARKS)
Answer ALL Questions in the Spaces Provided

1. State **two** precautions when handling inoculated seeds. (1mk)

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2. Explain the meaning of the following post-harvesting practices carried out in crops such as beans. (3mks)
   (i) Dusting

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(ii) Threshing

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(iii) Cleaning

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3. Give **four** characteristics that a good plant used as green manure should possess. (2mks)

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4. State **three** ways in which crop rotation may improve soil fertility. (3mks)

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5. State **three** ways in which primary tillage destroy soil-borne pests. (3mks)

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6. Give **four** edaphic factors that influence crop production. (2mks)

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7. (i) Define opportunity cost (1mark)

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(ii) Name Two types of inventory records kept by farmers (1mark)

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8. (a) Give TWO importance of sub-soiling (1mark)

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9. (i) Give TWO destructive effects of moles in crop production (1mark)

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(ii) Apart from moles, name TWO other rodent pests (1mark)

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10. State FOUR field pests that attach maize (2marks)

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11. Differentiate between apiculture and aquaculture as used in Agriculture (1mark)

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12. State TWO ways in which burning leads to loss of soil fertility (1mark)

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13. State TWO benefits of hardening off seedlings before transplanting . (1mark)

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14. Give **two** examples of the following: (3marks)

a) Organic manures

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b) Straight fertilizer

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c) Incomplete compound fertilizer

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15. Name the primary macronutrient responsible for the following in plants. (2marks)

i) Protein synthesis

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ii) Proper root establishment and development

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16. State **four** factors that would increase the seed rate of maize. (2marks)

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17. Give the role of the following in water treatment process. (3 marks)

a) Alluminium sulphate

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b) Chlorine

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c) Sodium bicarbonate

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18. List THREE soil constituents (1 ½ mark)

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19. State THREE ways in which nitrogen is lost from the soil (1½ marks)

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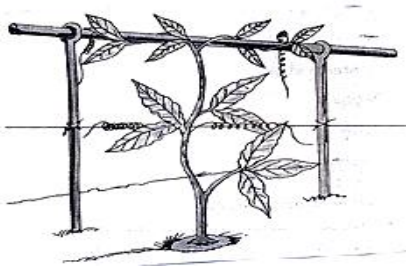
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SECTION B (20 MARKS)

Answer all the questions in this section in the spaces provided

20.The diagram below shows a practice in crop production



a) i) Give the identity of the field management practice illustrated above (½mks)

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ii) Give 2 reasons for carrying out the above field management practice(2 mks)

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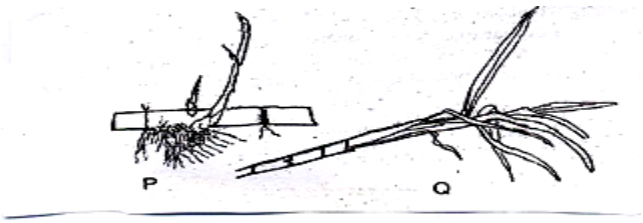
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b) A plot measuring 4m x 3m was prepared for planting cabbages at a spacing of 60 cm x 60 cm. Calculate the plant population in the plot .. Show your working (3mks)

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21 a) Identify the illustration P and Q which are materials used in propagation of sugarcane (1mk)



b) Giving reasons which of the above is more suitable as a planting material in sugar cane? (2 marks)

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22. The diagrams below labeled H and J are illustrated of coffee plants establishing using two different pruning systems. Examine them closely and answer the questions that follow.



a) Name the pruning systems illustrated by diagrams H and J (1 mark)

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b) Give two advantages of pruning system illustrated by diagram Hover that one illustrated by diagram J (2 marks)

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c) Name two types of pruning that should be carried out after the coffee bush has been established using the system J (2 marks)

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23.The diagrams V and W illustrate some soil structures. Study the diagrams and answer the questions that follow



a) Identify two structures labeled V and W (1mark)

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b) Name the types of soils from which structures labeled V and W can be found (1mark)

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c) State two ways through which structure V may influence crop production (2 marks)

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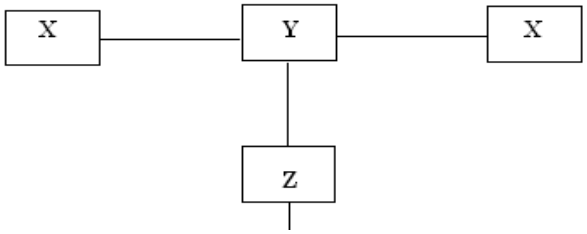
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24. The diagram below illustrates a method of preparing compost pit manure, study the diagrams and answer the questions that follow.



a) Identify the method illustrated (1 mk)

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b) By using arrows between the boxes indicate the direction of movement of materials from X to the field. (2 mks)

c) i) In regard to Y what is the volume of X? (1 mk)

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ii) How long should the materials stay in X and Y. (1 mk)

SECTION C (40MKS)

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

25. Describe the establishment of cabbage under the following subheadings.
a) Nursery establishment and management (8 mks)
b) Land preparation (4 mks)
c) Transplanting (8 mks)

26 (a) Outline the role of phosphorous in plants (5mks)
(b) Describe the policies used by the government to regulate the amount of imported agricultural good in Kenya (5mks)
(c) Describe uses of farm records in the farm (10mks)

27. (a) Discuss the human factors which influence agriculture. (10 marks)

(b) Explain **five** factors to consider when choosing the planting time. (10 marks)

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FORM 3 END TERM 1 SERIES 1 EXAMS

AGRICULTURE FORM THREE

PAPER 2

SECTION A (30MKS)

1. Name two species of camels. (1mk)

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2. Differentiate between a drenching gun and a bolus gun. (2mks)

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3. State four reasons why it's important to maintain farm tools and equipment. (2mks)

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4. State four importance of keeping livestock healthy. (2mks)

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5. State four advantages of castration in livestock. (2mk)

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6. Name two dual purpose breeds of cattle. (1mk)

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7. State four differences between large white and landrace breeds of pigs. (2mks)

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8. Give two examples of feed addictives in livestock feeding. (2mks)

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9. (a) Highlight four differences between ruminants and non-ruminants. (2mks)

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(b) State four functions of proteins in the body of an animal. (2mks)

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10. (a) Differentiate between flushing and steaming up. (2mks)

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(b) Give four reasons why an animal may be culled. (2mks)

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11. Name four rabbit breeds. (2mks)

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12. State six requirements of a calf pen. (3mks)

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13. Indicate six livestock management practices carried out in a crush. (3mks)

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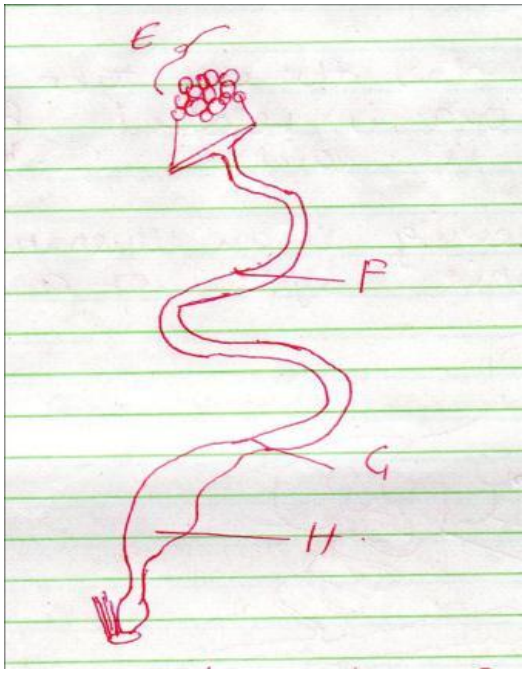
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SECTION B (20MKS)

14. The following is a diagram of the oviduct of a hen. Study it carefully and answer the questions that follows.



(a) Name parts labelled E, F, G and H. (2mks)

E …….

F ……

G ……

H …….

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(b) State one constituent added to the egg in each of the following parts.

F ……

G ……

H ……

(c) State two processes that take place in the infundibulum. (1mk)

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(d) How long does the egg take from the time the ova is released from E to the time its laid? (1mk)

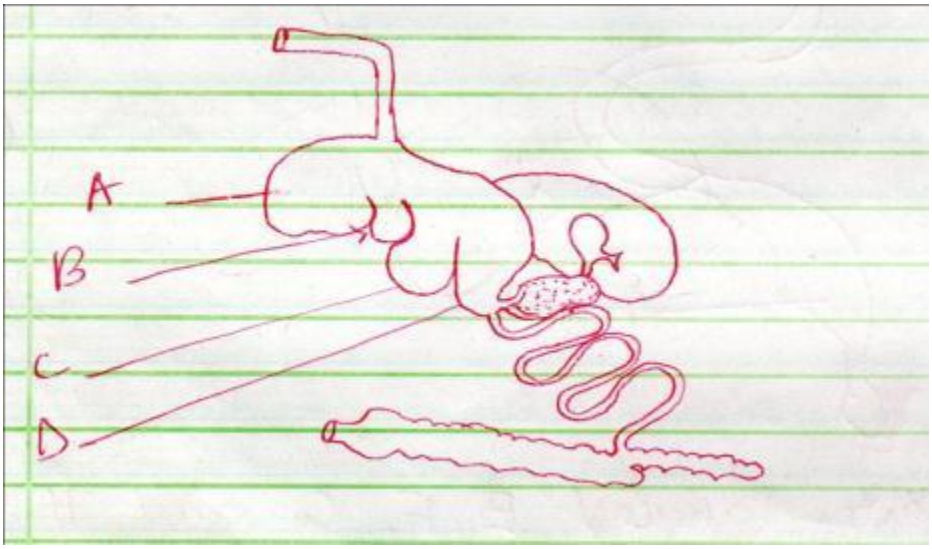
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15. The following is an illustration of the digestive system of a ruminant.



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(a) Name the parts labelled A to D.

A ……..

B ……..

C ……..

D …… (2mks)

(b) Name the parts illustrated where microbial activities takes place. (1mk)

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(c) State two microbial activities that take place in part named in (b) above. (2mks)

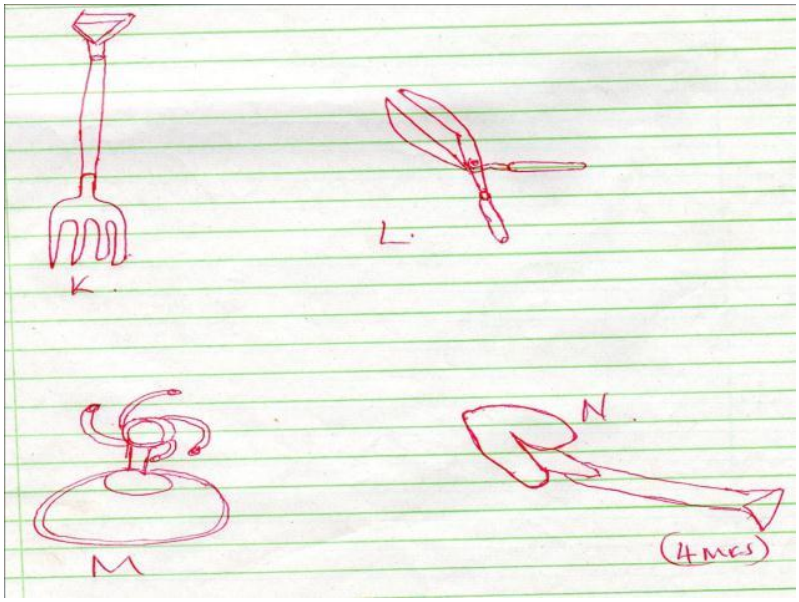
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16. (a) Identify the tools J K L M and N. (4 MKS)



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(b) Give one use of each of the tools named in (a) above. (2mks)

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(c) State the maintenance practices carried out on tool K and L. (2mks)

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SECTION C (40 mks)

17(a) State five factors to consider in selecting construction materials. (6mks)

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(b) Explain the factors to consider in citing farm structures. (9mks)

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(c) What is the importance of farm buildings. (5mks)

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18(a) Explain the importance of fencing in the farm. (8mks)

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(b) Describe the procedure followed when constructing a barbed wire fence. (8mks)

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(c) State the maintenance practices carried out on a barbed wire fence. (4mks)

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19(a) State six effects of parasites in livestock. (6mks)

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(b) Describe the life cycle of Taenia solium species of tapeworm. (10mks)

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(c) State four control measures of tapeworm. (4mks)

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FORM 3 END TERM 1 SERIES 1 EXAMS

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FORM 3-BIOLOGY

PAPER 1

KENYA CERTIFICATE OF SECONDARY EDUCATION

BIOLOGY PAPER1

TIME: 2 Hrs

TERM ONE

Instructions to candidate

(a) Write your name and admission number in the spaces provided.
(b) Answer all the questions in the spaces provided.
(c) All working must be clearly shown where necessary.
(d) Additional pages must not be inserted.

For examiner use only

Question	Maximum score	Candidates score
1 – 22	80	

1. (a) Name two structures found in a plant cell but are absent in animal cell. (2 marks)

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(b) Name the organelle in which protein synthesis takes place. (1 mark)

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2. State what would happen in each of the following:

(a) If a plant cell is placed in

(i) Strong salt solution. (1 mark)

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(ii) Distilled water (1 mark)

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(b) If a red blood cell is placed in:

(i) Strong salt solution (1 mark)

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(ii) Distilled water(1 mark)

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3. Name the most appropriate biological tool that an ecologist student can use for collecting:

(i) grasshoppers from grass (1 mark)

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(ii) Ants from a tree trunk (1 mark)

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4. Mangifera indica is the name given to a mango tree. What does each of the name represent?

Indica (1 mark)

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Mangifera (1 mark)

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(b) Name this method of identifying organisms. (1 mark)

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5. (a) What do you understand by the term cell specialization as used in biology? (2 marks)

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(b) Name any two specialized cells in plants and state how each is modified.

Cell	Modification	(4 marks)
(i) _____	_____	
(ii) _____	_____	

6. (a) Name a word that can be used in microscopy to describe the ability to see two structures which are close together as separate structures. (1 mark)

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(b) State the functions of the following parts of a microscope

(i) Diaphragm (1 mark)

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(ii) Condenser (1 mark)

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7. (a) Name the sites where light and dark reactions of photosynthesis take place (2 marks)

Light stage _____

Dark stage _____

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(b) Describe what happens during light stage of photosynthesis. (3 marks)

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8. (a) The action of ptyalin stops at the stomach. Explain (1 mark)

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(b) State a factor that denatures enzymes. (1 mark)

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(c) Name two features that increase the surface area of small intestines. (2 marks)

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9. (a) Identify two ways by which blood protects the human body. (2 marks)

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(b) (i) What prevents blood in veins from flowing backwards? (1 mark)

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(ii) State the form in which oxygen is transported in blood. (1 mark)

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10. (a) State the form in which the root hairs are adapted to their functions. (2 marks)

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(b) Name the tissues in plants responsible for:

(i) Transport of water and mineral salts. (1 mark)

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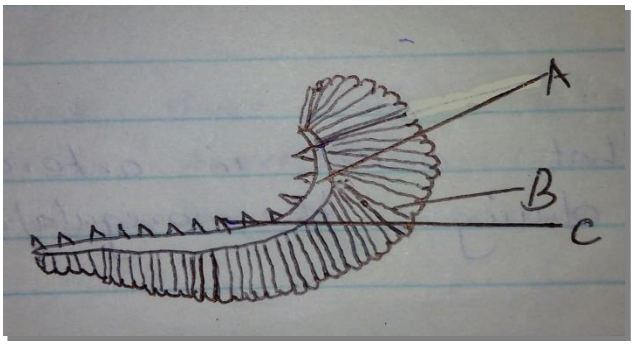
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(ii) Transport of carbohydrates (1 mark)

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



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(a) Label the structures labeled A, B, C, and D. (3 marks)

A ……

B ……

C ……

(b) State the functions of the structure labeled C. (1 mark)

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12. (a) In man, aerobic breakdown of glucose yields 2880 KJ of energy whereas anaerobic breakdown yields 150KJ. Give an explanation to account for this difference. (2 marks)

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(b) Differentiate between aerobic and anaerobic respiration. (2 marks)

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13. State the changes that occur in arterioles in human skin during thermoregulation. (2marks)

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14.(a) State the role of the carnassial teeth in a lion. (1 mark)

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(b) An organism was found to have the dental formula i 1/1 c 0/0 pm 3/2 m 4/4

(i) Calculate the number of premolars in the upper jaw. (1 mark)

(ii) Giving a reason, suggest the mode of feeding of the organism. (2 marks)

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15.(a) State the role of the following in osmoregulation

(i) Hypothalamus (1 mark)

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(ii) Pituitary gland (1 mark)

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(b) What causes diabetes mellitus in man? (1 mark)

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16.(a) Name three sites where gaseous exchange takes place in terrestrial plant (3 marks)

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(b) Name the gaseous exchange surface in insects. (1 mark)

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17. (a) State three factors that affect the rate of diffusion (3 marks)

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(b) What does a semi-permeable membrane correspond to in an animal cell? (1 mark)

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18.(a) What is the formula for calculating linear magnification of a specimen when using a hand lens? (1 mark)

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(b) Give a reason why staining is necessary when preparing specimens for observation under the light microscope. (1 mark)

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19.(a) State three external differences between chilopoda and diplopoda (3 marks)

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(b) Name the taxonomic unit that comes immediately after a phylum in classification. (1 mark)

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20.The diagram below shows the complete classification of lion, tiger, fruit fly and red fox

Taxon	Lion	Wolf	Tiger	Fruit fly	Red fox
Phylum	Chordata	Chordata	Chordata	Athropoda	Chordata
Class	Mammalia	Mammalia	Mammalia	Insecta	Mammalia
Order	Carnivora	Carnivora	Carnivora	Diptera	Carnivora
Family	Felidae	Canidae	Felidae	Drosophilidae	Canidae
Genus	Panthera	Canis	Panthera	Drosophila	Vulpes
Species	leo	lupus	tigris	melanogaster	vulpes

(a) Identify one organism which is <u>not</u> related to the others.Give a reason for your answer in (a) above (1 mark)

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(b) Which organism is most closely related to the wolf? Give a reason for your answer. (1 mark)

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(c) Which organism would you expect to have more common features with the lion? Give a reason for your answer? (1 mark)

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21. (a) Give a reason why two species in an ecosystem cannot occupy the same niche. (1 mark)

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(b) Distinguish between a community and a population. (1 mark)

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22.(a) Distinguish between interspecific and intraspecific competition. (2 marks)

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(b) Distinguish between carrying capacity and biomass. (2 marks)

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(c) (i) Which instrument is used to measure the light intensity? (1 mark)

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(ii) Name the equipment used to measure atmospheric pressure

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BIOLOGY FORM THREE PAPER 2

(THEORY)

INSTRUCTIONS

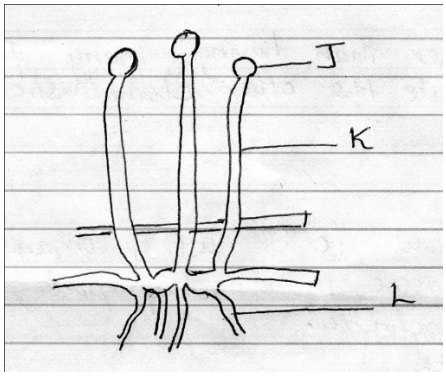
(a) This paper consists of two sections; A and B.
(b) Answer all the questions in section A in the spaces provided.
(c) In section B answer question 6 (compulsory) and either question 7 or 8 in the spaces provided after question 8.

For Teacher's use only

Section	Question	Maximum score	Student score
	1	8	
	2	8	
	3	8	
	4	8	
	5	8	
	6	20	
	7	20	
	8	20	
	Total score	80	

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1. The diagram below illustrates the structure of bread mould.



(a) Name the parts labelled J, K, L (3mks)

J ……

K ……

L ……

(b) State the functions of the structure labelled L. (2mks)

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(c) Name the type of nutrition exhibited by the mould. (1mk)

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(d) State two economic importance of the mould . (2mks)

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(2a) Name the phylum whose members possess notochord. (1mk)

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(b) Other than having many features in common, state the other characteristic of a species.(1mk)

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(c) Below is a list of organisms, which belong to classes insect, diplopoda, chilopoda and Arachnida:

Tick
Centipede
Praying mantis
Tsetsefly
Millipede
Spider

Place the organisms in their respective classes in the table below. Give reason in each case. (6mks)

Classes	Organisms	Reasons
Insecta		1. 2.
Diplopoda		1.

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Chilopoda		1.
Arachnida		1. 2.

3(a) (i) Name the type of circulatory system found in members of the class insect. (1mk)

(ii) Name the blood vessel that transports blood from:

Small intestine to the liver **……**

Lungs to the heart **……** (2mks)

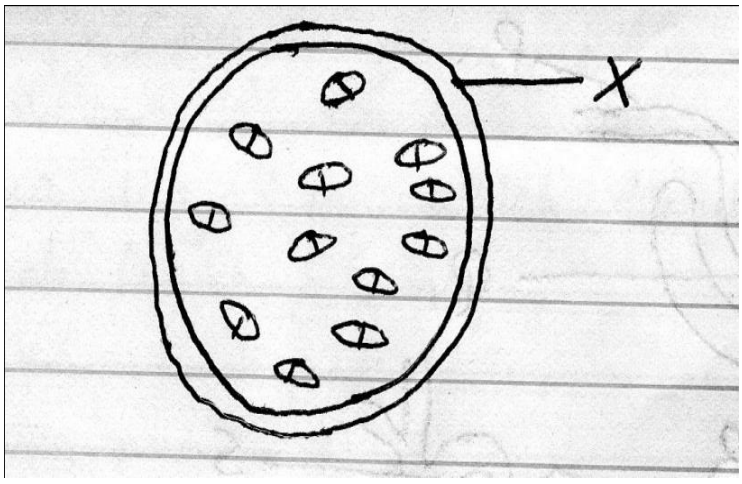
(iii) In what form is oxygen transported from the lungs to the tissues. (1mk)

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(b) The diagram below shows a transverse section of a plant organ.



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(i) Name the plant organ which the section was obtained. (1mk)

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(ii) Name the class to which the plant organ was obtained. (1mk)

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(iii) Give a reason for your answer (ii) above. (1mk)

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(iv) Name the part labelled X.

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4(a) What is the meaning of the terms; (2mks)

(i) Homeostasis

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(ii) Osmoregulation

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(b) Name the hormones involved in regulating glucose level in the blood. (2mks)

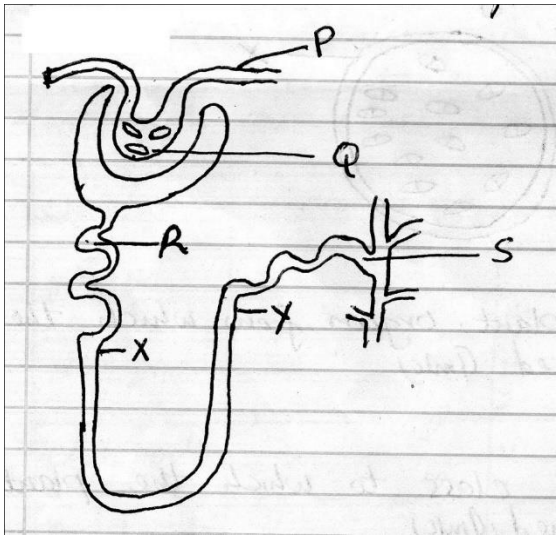
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(c) The diagram below represents a mammalian nephron.



(i) Name the

(a) Structure labelled P

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(b) Portion of the nephron between point X and Y.

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(ii) Name the process that takes place at point Q.

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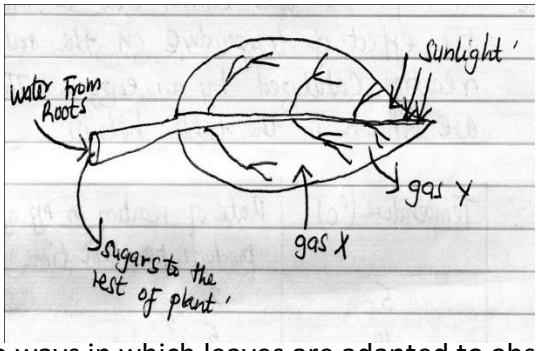
(iii) Name one substance present at point R but absent at point 5 in a healthy mammal.

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5. Leaves are organs of photosynthesis. The following diagram shows what happens in a plant during photosynthesis.



(a) Give two ways in which leaves are adapted to absorb light. (2mks)

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(b) Name the gases X and Y (2mks)

X ……

Y ……

(c) Name the tissues which transport water into the leaf and sugars out of the leaf. (2mks)

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(d) Describe what happens during light stage of photosynthesis. (2mks)

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SECTION B

Answer question 6 (compulsory) and either question 7 or 8 in the spaces provided after question 8.

6. An experiment was carried out to investigate the effect of temperature on the rate of reaction catalysed by an enzyme. The results are shown in the table below.

Temperature (^{0}C)	Rate of reaction in mg of products Per unit time
5	2
10	5
15	8
20	11
25	15
30	21
35	30
40	37
45	34
50	28
55	21
60	11

(a) On the grid provided draw a graph of rate of reaction against temperature. (6mks)

(PROVIDE A GRAPH PAPER)

(b) When was the rate of reaction 26mg of product per unit time. (2mks)

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(c) Account for the shape of the graph between

(i) 5^0C and 40^0C (2mks)

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(ii) 45^0C and 60^0C

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(d) Other than temperature name two ways in which the rate of reaction between 5^0C and 40^0C could be increased. (2mks)

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(e) (i) Name one digestive enzymes in the human body which works best in acidic condition. (1mk)

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(ii) How is the acidic condition for enzymes named in (e) above attained (2mks)

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(f) The acidic conditions in (e) (ii) above is later neutralized.

(i) Where does the neutralization take place? (1mk)

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(ii) Name the substance responsible for neutralization. (1mk)

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7. Explain how abiotic factors effect plants. (20mks)

8. How is the mammalian skin adapted to its functions. (20 MKS)

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SCHOOL: ……

ADM NO: …… SIGN: …… DATE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

FORM THREE EVALUATION EXAMINATION

231/3 BIOLOGY PRACTICAL

PAPER 3

TIME 1 ¾ HOURS

INSTRUCTIONS TO CANDIDATES

- Write your name and index number in the spaces provided at the top of this page.
- Answer all questions. You are required to spend the first 15 minutes of the 1 ¼ hours allowed for this paper reading the whole paper carefully before commencing your work.
- Answers must be written in the spaces provided in the question paper. Additional Pages must not be inserted.

FOR EXAMINERS USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1	15	
2	12	
3	13	
TOTAL	40	

1. Label 4 test tubes J, K, L and M. Peel specimen X provided and obtain four cube of about $1cm^3$. Grind one of the cubes put in test tubes J add water and boil for about 5 minutes. Grind another cube and place it in test tube K. Grid the third piece and place it in test tube L. Place the remaining cube in test tube M. Measure 5ml of the Hydrogen peroxide provided and pour into each test tube

a) Record the observation in these test tubes. (4 mks)

J ……..

K ……..

L ……..

M ……..

b) Compare the observations made in (2mks)

(i) K and M

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(ii) K and J (2mks)

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c) Account for your answer in b(i) (ii) (4mks)

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d) Write a word equation for the reaction taking place in tube M. (2mks)

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(f) Explain why hydrogen peroxide should not accumulate in living tissue (lmk)

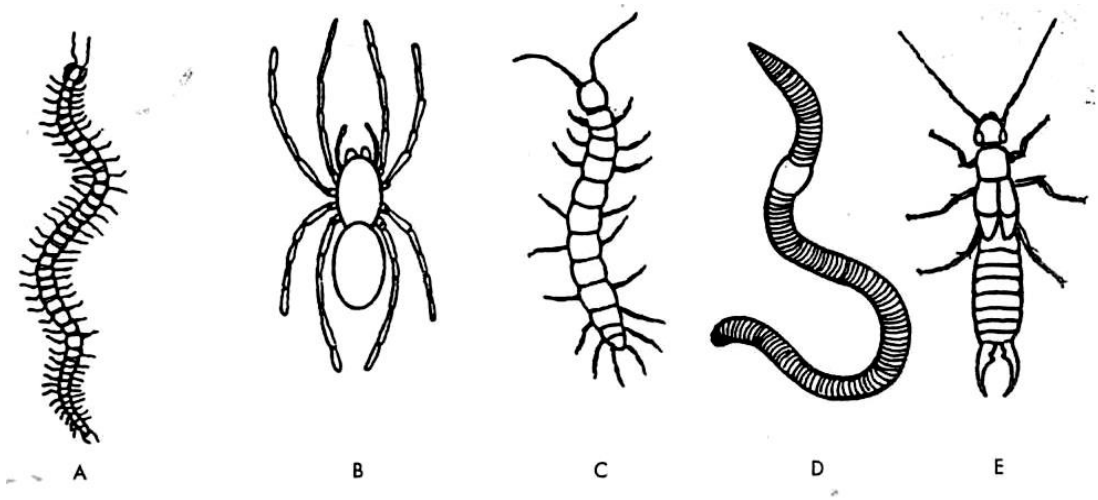
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2. Examine the diagrams below of various animals found in a sample of soil and decaying leaves collected from a local wood. Names of the specific organisms are :

Geophilus (A) Lycosa (B) Scutigenella (C) Enchytraeid (D) Porficala (E)



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(a) Using the features in the order given below, construct a dichotomous key that can be used to identify the specimens. (8marks)

- Presence of 8 or more legs or less than 8 legs.
- Length of legs compared to body.
- Presence of legs on every segment.
- Presence of pincers on tip of abdomen.

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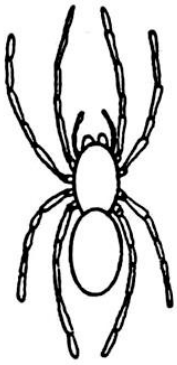
(b) Name the class in which the organisms B and E belong. (2 mks)

B …….

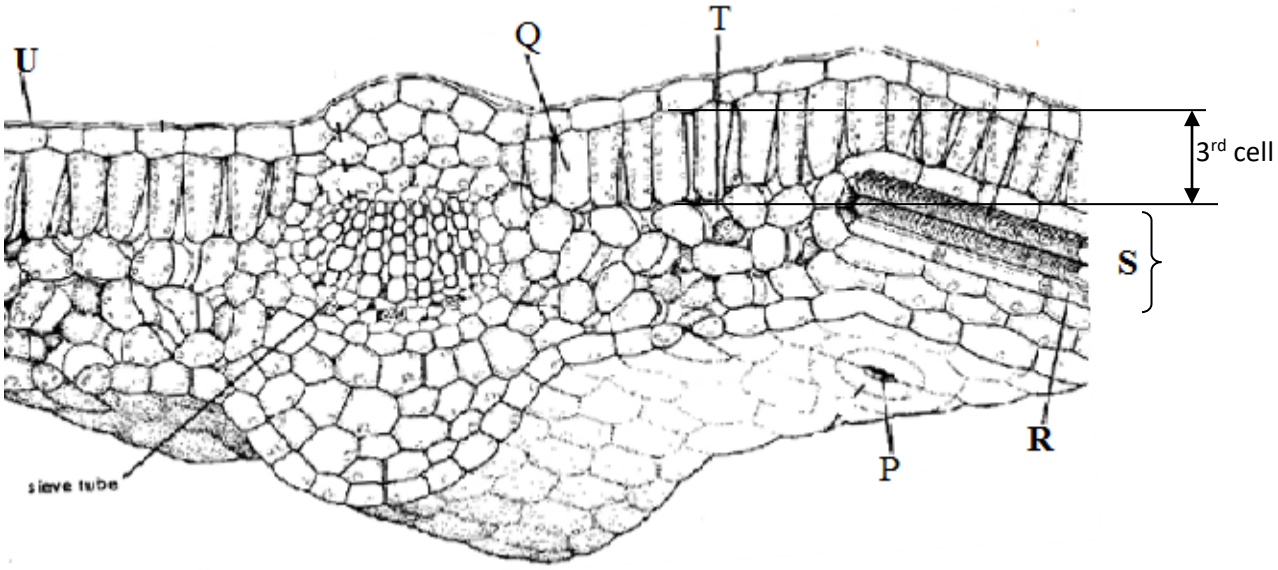
C ……

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(c) Label any four parts on diagram B. (2 mks)`



3. The photomicrograph below shows the arrangement of different types of cells and tissues in a certain living organism. Study it carefully and answer the questions that follow.



a) (i) From what part of the plant was the photograph obtained? (1mark)

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(ii) Name the parts labeled: - P, Q, U,T and U (5marks)

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(iii) Give two major components that make up structure S. (2marks)

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(iv) State the function of the part labeled Q and an adaptation to its function. (2marks)

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(v) Give an environmental factor which regulates the function of the part labeled P. (1mark)

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b) Measure the length of the third (3^{rd}) cell at the right side of structure labeled Q on the photograph whose magnification is X5000. What is the actual length of the cell in micrometers (µm)? Show your working. (2marks)

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BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

Kenya Certificate of Secondary Education (K.C.S.E.)

FORM 3 BUSINESS STUDIES
PAPER 1
TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

- *Write **your name** and **your Admission Number** in the spaces provided above.*
- ***Write** the **date** of examination and **class** in the spaces provided above.*
- *Answer **all** the questions in the spaces provided.*
- *All answers should be written in English.*
- *This paper consists of 9 printed pages. Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.*

FOR EXAMINERS USE ONLY:-

Question	1	2	3	4	5	6	7	8	9	10	11	12	13
Score													

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

TOTAL MARKS

Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

1. State 4 reasons that would make an individual engage in business (4marks)

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2. State whether the following factors will affect the business environment internally or externally (4marks)

	Factor	Effect
i)	Competition	……..
ii)	Terrorism threat	……..
iii)	Human resource management	……..
iv)	Production capacity	……..

3. Outline 4 characteristics of economic resources (4marks)

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4. Outline types of utility and the production activity associated with each of them (4marks)

Utility	Production activity
i) ……	……
ii) ……	……
iii) ……	……
iv) ……	……

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5. Highlight four ways in which the office facilitates effective handling of documents (4mks)

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6. Outline 4 disadvantages of using automatic vending machine (4marks)

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7. Outline 4 types of wholesalers (4marks)

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8. State four reasons why there is increased use of mobile phones in banking (4marks)

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9. State 4 reasons why a consumer may prefer buying goods from a supermarket to a small scale retail shop (4marks)

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10. State 4 factors that a retailer would consider before allowing a customer to buy goods on credit(4marks)

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11. State 4 documents that should be submitted to the registrar of companies for the purpose of registering a limited liability company (4marks)

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12. Highlight 4 ways in which the government of Kenya may regulate her business activities (4marks)

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13. Outline 4 features of an efficient transport system (4marks)

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14. Highlight 4 factors that may render communication ineffective (4mks)

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15. The table below contains descriptions relating to some types of warehouse. In the spaces provided, write the type of warehouse to which each description refers (4marks)

Description	Type of warehouse
a) Used to store exports & imports	
b) Operated for the owner's exclusive use	
c) Owned and operated by manufacturers and farmers	
d) Anybody can rent space in it for storing goods temporarily	

16. Outline 4 factors that may render communication ineffective (4marks)

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17. State the appropriate insurance policy your school can take to cover each of the following risks

Risks	Policy
a) Losses arising from debtors failing to pay	
b) Injury caused to neighbour's health due to school's leaked sewer	
c) Loss of cash being delivered to the local bank	
d) To cover cooks from injuries that may occur to them in the kitchen	
e) Loss of money due to account's clerk dishonesty	

(5marks)

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18. Outline 4 qualities of a good salesperson (4marks)

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19. State 4 ways that a trader may provide after sale service to his customers (4marks)

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20. State 3 circumstances under which a trader would advertise his products over the radio instead of television (3marks)

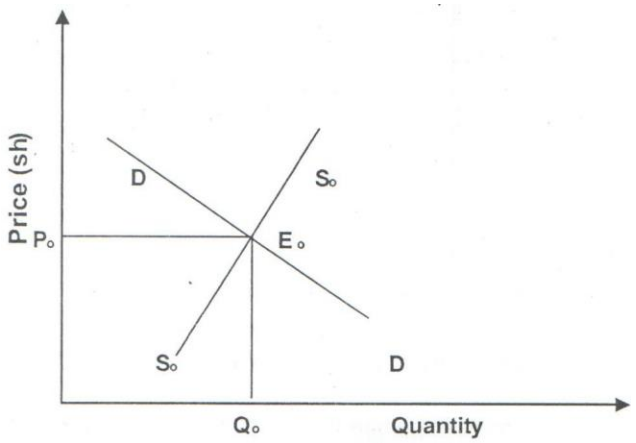
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21. The diagram below shows the demand and supply curves of a certain commodity and the corresponding equilibrium price (Pe) and quantity (Qe). On the diagram, show the new equilibrium quantity and price as a result of a decrease in the supply of the commodity. Write down your observation (4marks)



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22. Highlight 4 dangers of locating firms in a central place (4marks)

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23. Outline 4 characteristics of a perfect competition market structure (4marks)

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24. Outline 4 channels that can be used to distribute locally manufactured goods (4marks)

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25. Give 4 assumptions in a two sector economy circular flow of income (4marks)

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NAME: ……..……..……

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ADM NO: …… SIGN: …… DATE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

565/2

BUSINESS STUDIES

PAPER 2

TIME: 2½ HOURS

INSTRUCTIONS TO CANDIDATES

This paper consists of six questions.

Answer FIVE questions

Write your answers in the foolscaps provided.

All questions carry equal marks.

This paper consists of TWO Printed pages.

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

Candidates should answer the questions in English.

For Examiners use only.

Question	**1**	**2**	**3**	**4**	**5**	**6**
Marks						

1. (a) Explain FIVE advantages of an open plan office layout for a business.(10mks)

(b) Explain FIVE reasons for existence of small firms despite competition from large scale firms.(10mks)

2. (a) Explain FIVE principles of Insurance.

(b) With the aid of a diagram, explain the effect of an increase in supply to the equilibrium price and quantity of a product.(10mks)

3. (a) Explain FIVE problems facing savings and credit cooperative societies in Kenya .10mks)

(b) Explain FIVE reasons why the government gets involved in Business activities.(10mks)

4. (a) Despite the development in the transport sector, human porterage is still commonly used in Kenya.

Explain FIVE reasons that account for this fact.(10mks)

(b) Explain FIVE circumstances under which a firm may relocate its operations from urban centres to rural areas.(10mks)

5. (a) Explain FIVE ways in which warehousing promotes trade.(10mks)

(b) Explain FIVE problems encountered when measuring National Income using the Income approach.(10mks)

6. (a) Explain FIVE characteristics of perfectly competitive market.(10mks)

(b) Manufacturers distribute their products to the final consumers through various channels .Highlight FIVE factors considered in choosing a particular channel of distribution.(10mks)

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NAME: ……..……..……

SCHOOL: ……

ADM NO: …… SIGN: …… DATE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

233/1

CHEMISTRY

PAPER 1

(THEORY)

2 HRS

INSTRUCTIONS TO CANDIDATES

a) Write your name in the space provided.

b) Answer all the questions in the spaces provided in the question paper.

c) Mathematical tables and silent electronic calculators may be used.

d) All working must be clearly shown where necessary.

QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
1 – 29	80	

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1. The electron arrangement of ions X^{3+} and Y^{2-} are 2.8 and 2.8.8 respectively.
   a) Write the electron arrangement of elements X and Y. (2 mks)

   X - (1 mk)

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   Y - (1 mk)

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   b) Write the formula of the compound that would be formed between element X and Y. (1 mk)

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2. Oxygen is obtained by fractional distillation of liquid air.
   a) Name two other gases obtained during this process. (2 mks)

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   b) Give two commercial use of oxygen. (2 mks)

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3. (a) Explain why a burning magnesium ribbon continues to burn when placed in a gas jar containing carbon (iv) oxide gas but a burning splint is extinguished. (2 mks)

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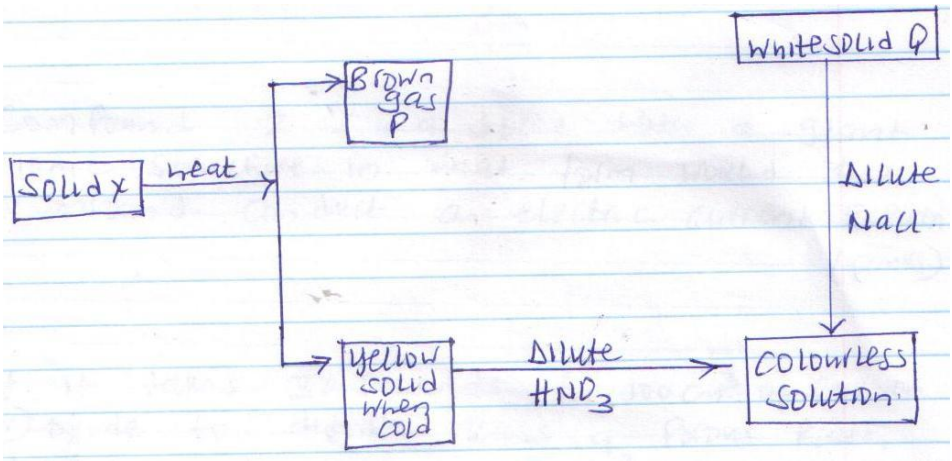
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(b) Write an equation for the reaction that takes place in (a) above. (1 mk)

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4. Study the scheme below and then answer the questions that follow;



a) Identify;
(i) Solid X. (1 mk)

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(ii) Yellow solid (1 mk)

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b) Write an ionic equation for the reaction between dilute sodium chloride and the colourless solution. (1 mk)

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5. (a) What are isotope? (1 mk)

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(b) The R.A.M of element P is 63.5 it has two isotopes of masses 63 and 65 respectively. Determine the percentage abundance of each. (2 mks)

6. Compound Z is a solid with a giant ionic structure in what form would the compound conduct an electric current. Explain. (2 mks)

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7. If it takes 30 seconds for $100cm^3$ of Carbon(iv)oxide to diffuse across a porous plate, how long will it take $150cm^3$ of nitrogen (iv) oxide to diffuse across the same plate under similar conditions? (C=12.0, N=14.0, O=16.0). (3 mks)

8. (i) An oxide of an element Q was found to react with both HCl and NaOH. What property does the oxide exhibit? (1 mk)

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(ii) Give two examples of oxides that behave like the oxide of Q. (2 mks)

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9. Use dot(and cross(x) diagrams to show the bonding in each of the following;
   a) Lithium oxide (Li=3, O=8) (1 mk)

   b) PH_4^+ (P=15, H=1) (2 mks)

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

Solid	Cold water	Hot water
P	Soluble	Soluble
Q	Insoluble	Insoluble
R	Insoluble	Soluble

Describe briefly how a pure sample of the solids can be obtained from a mixture of the three.(3 mks)

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11. 0.045 mole of a certain hydrocarbon gave on complete combustion 9.9 g of carbon(iv)oxide and 4.86g of water. Calculate its molecular formula. (C=12, H=1) (3 mks)

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12. Study the information below and use it to answer the questions that follow.

Ion	Electronic arrangement	Ionic radius
Na^+	2.8	0.095
K^+	2.8.8	0.133
Mg^{2+}	2.8	0.065

Explain why the ionic radius of:

a. K^+ is greater than that of Na^+. (1 mk)

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b. Mg^{2+} is smaller than that of Na^+. (1 mk)

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c. Define the term ionization energy. (1 mk)

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13. When 34.8g of hydrated sodium carbonate $Na_2CO_3.XH_2O$ were heated to a constant mass, 15.9g of anhydrous sodium carbonate (Na_2CO_3) were obtained. Calculate the value of X in the hydrated carbonate. (Na=23, O=16, C=12, H=1). (3 mks)

14. When carbon (iv) oxide gas was passed through aqueous calcium hydroxide a white precipitate was formed.

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

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b. State and explain the changes that would occur when carbon (iv) oxide gas is bubbled through the white suspension. (2 mks)

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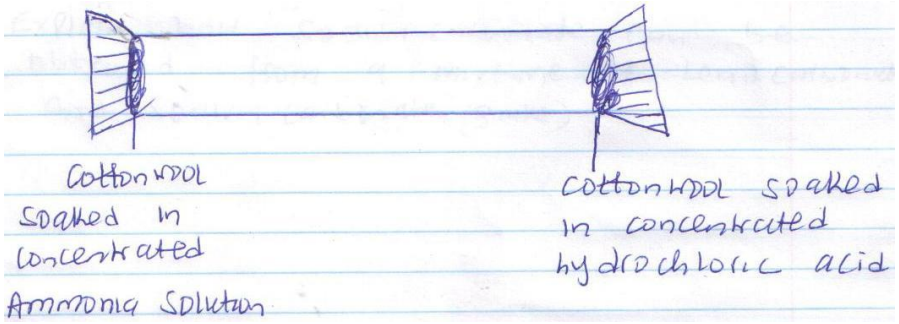
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15. Some zinc sulphate crystals were heated to constant mass with the following results obtained.
Mass of crucible = 20.00 g
Mass of crucible and crystals = 25.74g
Mass of crucible and residue = 23.32 g
From the Data, calculate the value of X in the formula $ZnSO_4.XH_2O$. (Zn=65, S=32, O=16, H=1) (3 mks)

16. Study the set up below and answer the questions that follow.



a. What is the aim of the above experiment? (1 mk)

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b. State the observations made after sometime? (1 mk)

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c. Write an equation for the reaction taking place in the above set up. (1 mk)

17. A compound has an empirical formula C_3H_6O and a relative formula mass of 116. Determine its molecular formula. (H=1.0, C=120, O=16.0) (2 mks)

18. Explain how sodium carbonate can be obtained from a mixture of lead carbonate and sodium carbonate. (3 mks)

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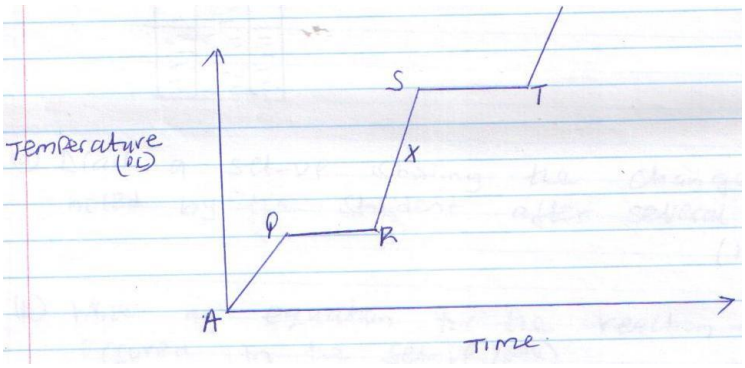
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19. A pure solid sample was heated and a graph of temperature against time obtained as shown below.



a. Which regions on the curve represent the melting and boiling processes? (1 mk)

Melting …… (1/2 mk)

Boiling …… (1/2 mk)

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b. Explain why temperature remains constant at region ST. (1 mk)

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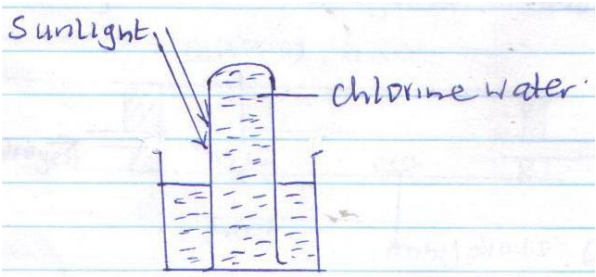
c. In which state of matter will the sample be at point X. (1 mk)

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20. A form two student used the set-up below to investigate the effect of sunlight on chlorine water.



a. Draw a set-up showing the change noted by the student after several hours. (1 mk)

b. Write an equation for the reaction that occurred in the set-up. (1 mk)

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21. The table below shows the melting and boiling points of impure solid Q.

Substance	Melting point (0C)	Boiling point (0C)
	140-180	240-280

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Identify the melting and boiling points of pure substance Q.

(i) Melting point (1 mk)

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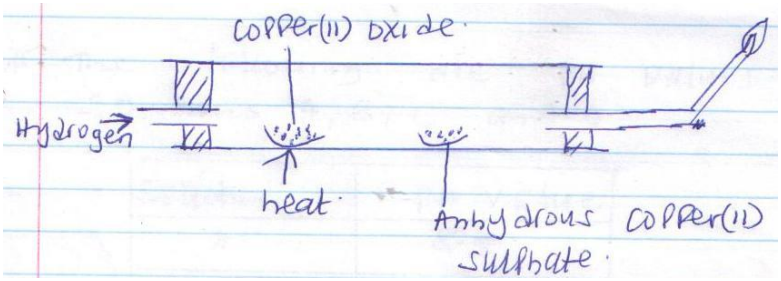
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(ii) Boiling point (1 mk)

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22. Study the diagram below;



a. State two observations made after sometime. (2 mks)

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b. Write one equation showing a reaction taking place in (a) above. (1 mk)

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23. Molten Zinc Chloride was electrolysed using graphite electrodes.

a. State the observation made at the anode. (1 mk)

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b. Write equations for the reaction occurring at each of the electrode.
Cathode (1 mk)

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Anode (1 mk)

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24. Describe how the following reagents would be used to prepare barium sulphate: solid sodium sulphate, distilled water, barium carbonate and dilute nitric(v)acid. (3 mks)

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25. The following are PH values of some solutions A, B, C and D.

Solution	PH value
A	8.5
B	4.5
C	2.0
D	12

a. With the highest concentration of hydroxide ions. Explain. (2 mks)

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b. Which may be tooth paste. (1 mk)

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26. State two applications of electrolysis. (2 mks)

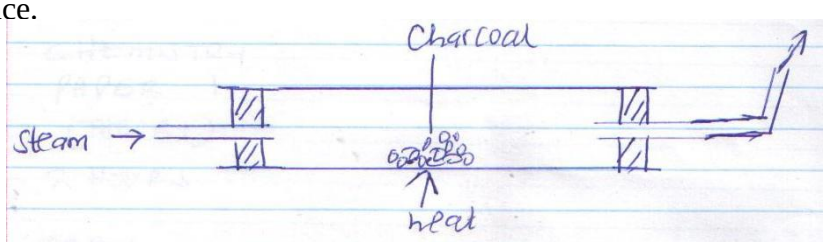
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27. When steam was passed over heated charcoal as shown in the diagram below a certain reaction took place.



a. Write the equation for the reaction which took place. (1 mk)

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b. Name two uses of carbon (ii) oxide gas, which are also uses of hydrogen gas. (2 mks)

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28. (a) State the observation made when chlorine gas is bubbled through a solution of potassium iodide. (1 mk)

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(b) Write an ionic equation for the reaction in (a) above. (1 mk)

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29. Give the reason why Helium is used in weather balloons. (1 mk)

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SCHOOL: ……

ADM NO: …… SIGN: …… DATE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

233/2

FORM 3 CHEMISTRY PAPER 2 THEORY

TIME 2HRS

Instructions to candidates.

1. Write your name and index number in spaces provided in the question paper.
2. Answer all the questions in the spaces provided in question paper.
3. Mathematical tables and silent calculators may be used.
4. All working must be clearly shown where necessary.

QUESTIONS	STUDENT SCORE
1	
2	
3	
4	
5	
6	
7	

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1. Study the table below and answer the questions that follow. The letters do not represent the actual symbols of the elements.

Element	A	B	C	D	E	F	G	H
Atomic no.	11	12	13	14	15	16	17	16
Boiling point (°C)	890	1110	2470	2360	280	445	-34.7	-186
Formulae of oxide		BO			E_2O_3	FO_2		xxxx
Boiling point of oxide (°C)	1193	3075	2045	1728	563	-72	-91	xxxx

(a) (i) Write the electronic arrangement for ion of element **C** and **F**. (1 mark)

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(ii) To which period and group do element **B** belong. (1 mark)

Period _____

Group _____

(b) Explain the difference in boiling points of element **B** and **F**. (2 marks)

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(c) Write the formula of the compound formed between elements **B** and **G**. (1 mark)

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d) The chloride of **A** has a higher boiling point than that of **C**. Explain.(2 marks)

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(e) Complete the table to show the formulae of the oxides. (2 marks)

(f) Select an oxide that reacts with hydrochloric acid and potassium hydroxide.
Explain (1 mark)

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(g) Determine the oxidation state of **F** in its oxide. (1 mark)

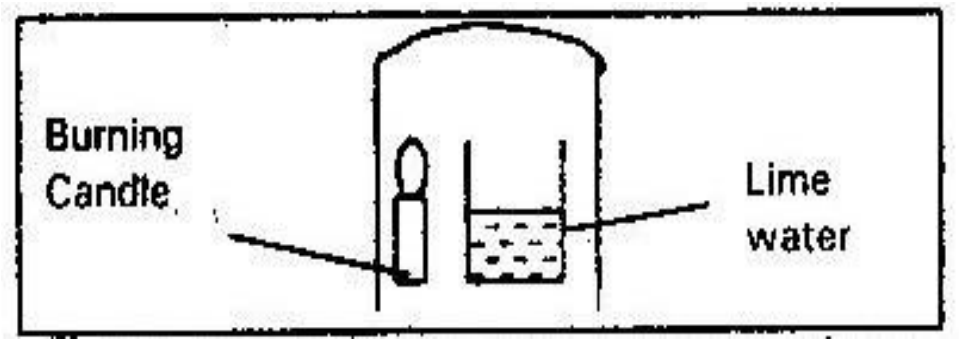
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h) using dots (.) and cross (x) draw the structure of (2 marks)

NH_4^+

2. **A** Study the arrangement below and answer the questions that follows.



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a) What observation is made in the lime water after a short time. (1mk)

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b) Write an equation for the reaction taking place in the beaker containing lime water (1 mark)

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(B) A piece of Phosphorus was burnt in excess air and the product obtained was shaken with small amount of hot water to make a solution.

i) Write an equation for the burning phosphorus in excess air (1mk)

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ii) The solution obtained in above was found to have a PH of 2. Explain (lmk)

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C) Explain why cooking pots made of aluminium do not corrode easily when exposed toair. (2 marks)

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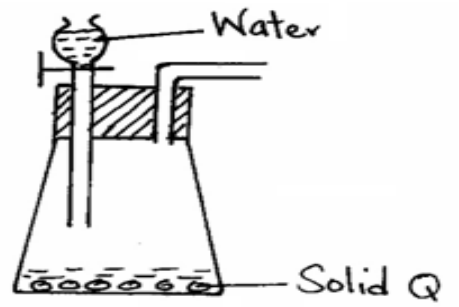
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D. The diagram below represents a set-up used to prepare oxygen gas.



(a) Name substance Q. (1 mark)

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(b) Complete the set-up to show how dry oxygen gas is collected. (2 mark

(c) Write the equation for the reaction that occurs. (1 mark)

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3. (a) state Graham's law of diffusion.(1mk)

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(ii) $20cm^3$ of un known gas Q takes 12.6 seconds to pass through small orifice. $10cm^3$ of oxygn gas takes 11.2 seconds to diffuse through the same orifice under the same conditions of temperature and pressure. Calculate the molecular mass of unknown gas Q (0=16) (2mks)

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(iii) A balloon used in a meterological station contains 250dm^3 of helium at 25^{o}c and 100kpa pressure. Calculate the temperature when will burst, when its volume reaches 400dm^3 and 80kpa pressure. (3mks)

(b) (i) what is meant by empirical formula of a compound.(1mk)

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(ii) a hydrated salt has the following composition.

By mass.

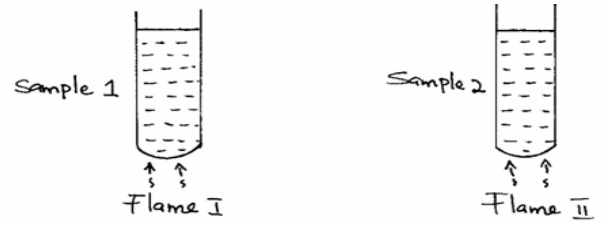
Copper 25.4% sulphur 12.8 %, oxygen 25.8%, water 36% . its relative formula mass is 249.5. determine the emperial formula of the hydrated salt.(3mks)

(iii)9.98g of hydrated salt were dissolved in distilled water and the total volume made to 200cm^3 of solution. Calculate the concentration of the salt solution in moles per litre.(2mks)

(c)If 200cm^3 of carbon (ii) oxide were burnt in 150cm ^{3} of oxygen. What is the volume of the remaining gases? (all volumes measured at the same temperature and pressure). What will be the volume of each of the remaining gases.

4. (a) A patient was given tablets with prescription 2 x 3 for 3 days on the envelope. Clearly outline how the patient should take the tablets. (1 mark)

(b) Two samples of equal volumes of water were put in 250cm^3 beaker and heated for 10 minutes. Sample 1 registered a higher temperature than sample 2. State the conditions under which flame 1 is produced in the Bunsen burner. (1 mark)



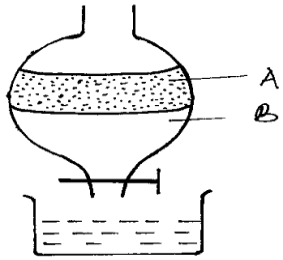
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c) The apparatus below was used to separate a mixture of liquid A and B.
State two properties of the liquids that make it possible to separate them are using such apparatus. (2 marks)



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d) A laboratory technician accidentally mixed liquids suspected to be benzene (B.P. 78 ^{0}C) and water (B.P 100^0 C). He has a problem of separating the mixture and seeks your help. Describe to him. (2marks)

i.) The method he should use

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ii.) The precautions he should take when carrying out the separation.

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e) A bee keeper found that when stung by a bee, application of a little solution of sodium hydrogen Carbonate help to relieve the irritation from the affected area. Explain. (2mks)

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D The following data gives the PH value of solution P, Q and R.

Solution	PH value
P	13.6
Q	6.9
R	1.3

i) Which solution would produce Carbon (IV) Oxide when reacted with Copper (II) Carbonate? (1mk)

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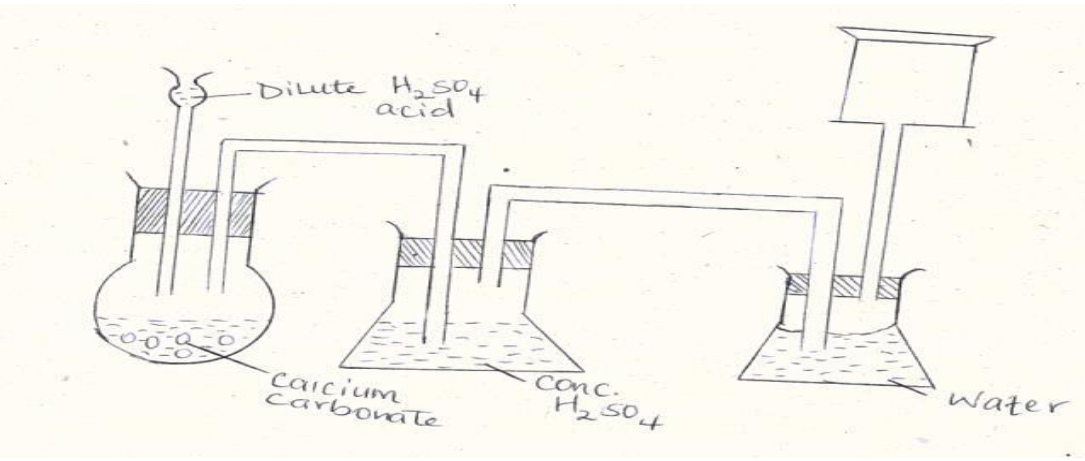
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ii) What would be the colour of solution "P" after adding a few drops of phenolphthalein indicator?(1mk)

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5. A student set up the apparatus shown below to prepare and collect dry carbon (iv oxide gas



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a. State a correction for two mistakes in the set up above.(2mks)

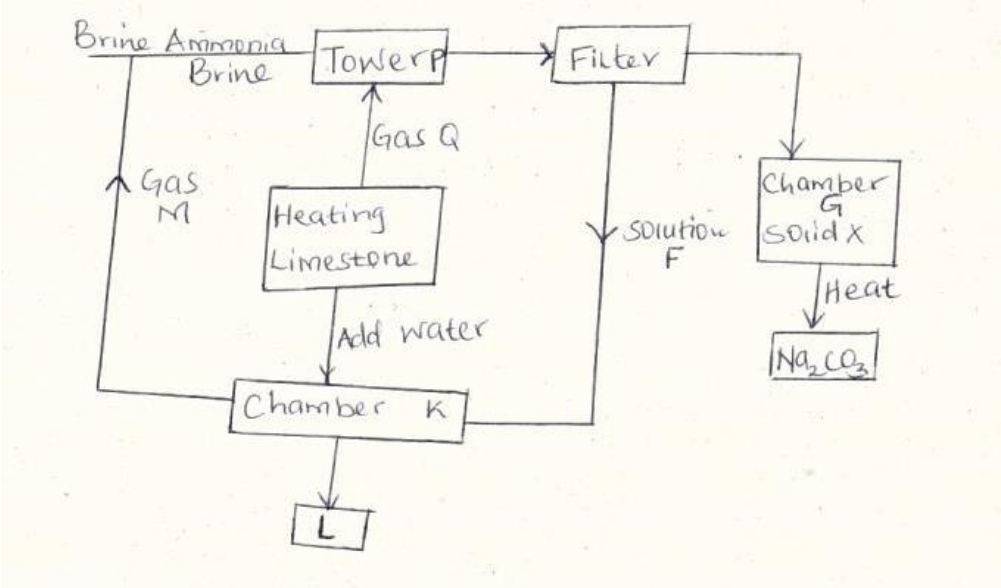
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b. The flow chart below is for the manufacture of sodium carbonate by the Solvay process. Use it to answer the questions that follow.



5i) Name gas M and Q (2mks)

M ……

Q ……

(ii) Name solution F (2mks)

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Solid x

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(iii) Name the product L formed and give one of its use. (2mks)

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(iv) Write equations of the reactions in tower P

Tower p (2mks)

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Chamber k

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6 Describe how solid samples of salts can be obtained from a mixture of lead (II) chloride,
(a) sodium chloride and ammonium chloride. (3 marks

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(i)Write the equation for thermo decomposition of:

I. Sodium nitrate. (1 mark)

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II. Copper (II) nitrate. (1 mark)

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III. Calcium carbonate (1 mark)

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(iii) Define the term electrolysis? (1mk)

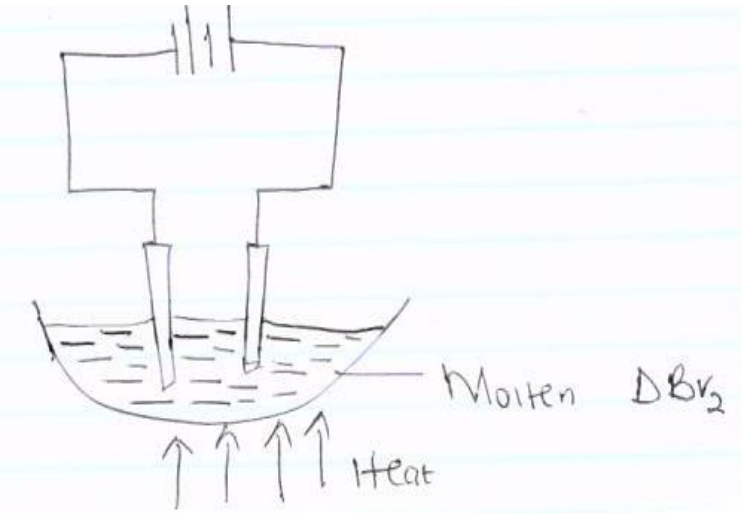
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(ii) The set up below was used to electrolyse a bromide of metal D, DBR_2.



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Write equations for the reactions at the

i. Cathode (1mk)

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ii. Anode (1mk)

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(iii) Give a reason why this experiment is carried out in a fume cupboard. (1mk)

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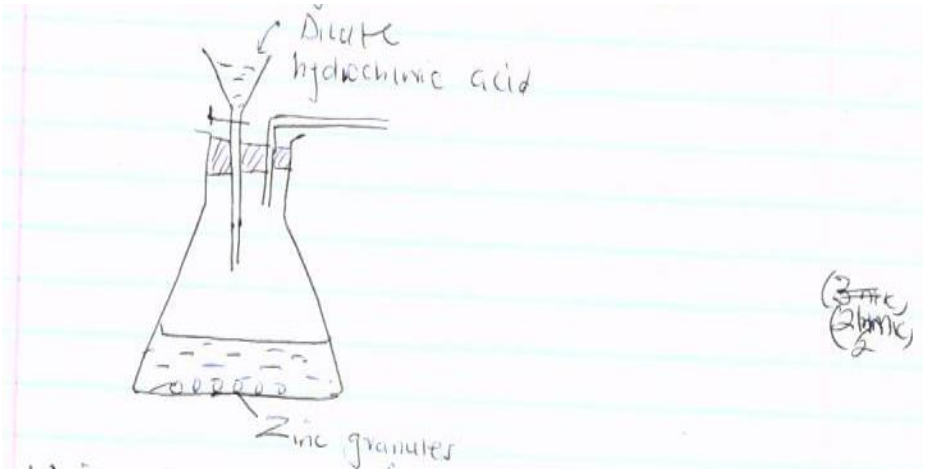
(iv) State one application of electrolysis. (1mk)

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7a) the set up below was used to prepare hydrogen gas. Complete the diagram to show how a dry sample of the gas can be collected.



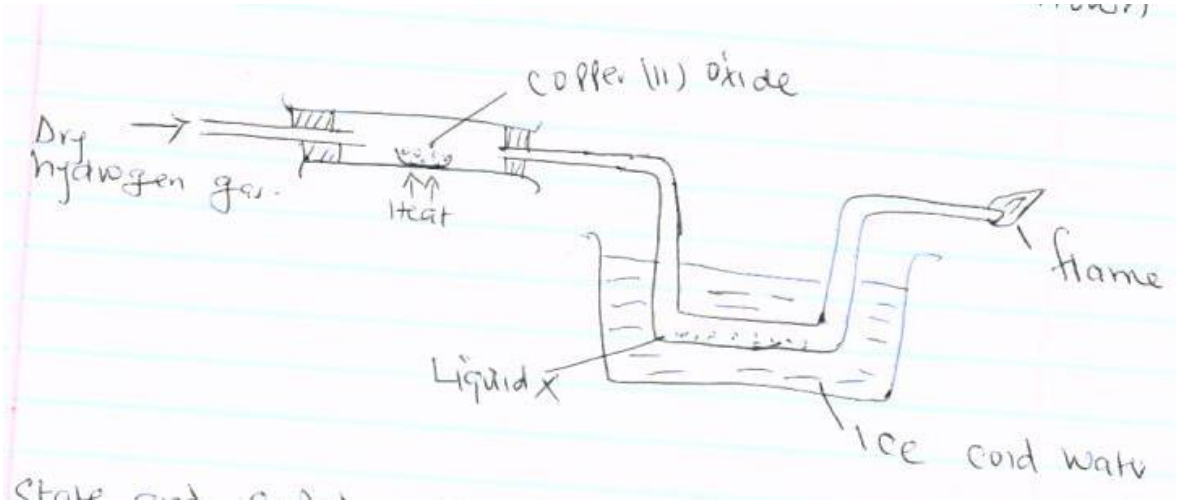
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(i) Write an equation for the reaction producing hydrogen gas.(1mk

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(b) dry hydrogen gas was passed over heated copper (ii) oxide in a combustion tube as shown below.



(i) State and explain the observation made in the combustion tube.(2mks)

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

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© (i) identify liquid x (1/2mk)

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(iii) Give one chemical test that can be used to prove the identity of liquid x. (1mk)

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di) when magnesium oxide is used is placed of copper (ii) oxide, no liquid is formed in the u-tube dipped in ice-cold water . Explain. (1mk)

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(ii) write an equation for the reaction at flame point. (1mk)

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BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

TERM 1

233/3

FORM 3 CHEMISTRY PAPER 3 (PRACTICAL)

TIME: 2¼ HOURS

Instructions to candidates.

(a) Write your name and admission number on the paper.

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

(c) Spend the first 15 minutes of the 2¼ hours to read the question paper and ensure all the chemicals and apparatus are available.

(d) All working must be clearly shown where necessary.

(e) KNEC mathematical tables and silent electronic calculators may be used.

(f) Check the question paper to ensure all the questions are printed. The paper consists of 3 questions.

(g) Answer all the questions in English.

For examiner's use only

TOTAL SCORE

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Q1 You are provided with

- Solution D which is acidified potassium manganate(VII)
- Solution E which was prepared by dissolving 23.5g of ammonium iron(II) sulphate per dm^3

  $(NH_4)_2SO_4 . Fe\ SO_4 . 6H_2O$.

- You are required to determine the concentration of acidified potassium manganate(VII) i.e standardize solution D.

Procedure

- Fill the burette with solution D
- Pipette $25.O^3$ of solution E and transfer into a clean 250ml conical flask.
- Titrate solution D against solution E until a permanent colour change occurs
- Record your results in table 1 below.
- Repeat the procedure two more times.

Table 1

	1	11	111
Final burete reading(cm^3)			
Initial burette reading (cm^3)			
Volume of solution D added (cm^3)			

(!) What were the colour changes during the titration. (1mk)

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(II) Calculate the average volume of solution D used. (1mk)

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(III) Calculate the number of moles of solutions E in 25cm^3 (N+14,H=1,Fe=56,S=32,0=16) (3mks)

(iv) Given that the reacting ratio(mole ratio) of D:E is 1:5 respectively, calculate the number of moles of solution D in the average volume. (1mk)

(v) Calculate the molarity of solution D. (2mks)

Q2 You are provided with

- Sodium carbonate solid Y.
- 0.125m hydrochloric acid solution Z.

You are required to determine the mass of solid Y sodium carbonate provided.

Procedure

- Put all the solid Y provided in a 100ml beaker and add about 50cm^3 of distilled water.
- Stir and transfer the solution into a 250ml volumetric flask.
- Rinse the beaker with more distilled water and put the washing into the volumetric flask
- Add more water to the volumetric flask to make up to the mark, label this solution Y.
- Fill the burettle with the hydrochloric acid solution Z.
- Pipette 25.0cm^3 of solution Y into a conical flask.
- Add 2-3 drops of methyl orange indicator and titrate with solution Y from the burette.
- Record in table II below
- Repeat the titration two more times.

Table II

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

(1) Calculate the average volume of solution Z used. (1mk)

(II) Calculate the number of moles of hydrochloric acid solution Z in the average volume.

(1mk)

(III) Write an equation for the reaction . (1mk)

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(IV) Calculate the number of moles of sodium carbonate solution Y in $25cm^3$. (1mk)

(v) Calculate the number of moles of sodium carbonate solution Y in $250cm^3$. (1mk)

(vI) Calculate the mass of sodium carbonate solid Y that you were provided with(Na=23, C=12.O=16) (2mks)

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Q3(a) You are provided with a metallic oxide solid P. Carry out the tests below and answer the questions asked.

(1) Put about 2 cm^3 of sulphuric (VI) acid in a test tube and add all the solid p provided. Shake well, leave to settle, filter and retain the filtrate.

(i) Write down the observation made. (1mk)

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(ii) Name the salt present in the filtrate. (1mk)

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(iii) Write an equation for the reaction that takes place. (1mk)

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(II) Heat about 1 cm^3 of the filtrate in a boiling tube until all the water evaporates. Observe and leave to cool. (1mk)

NB Do not overheat.

(III) Add about 1cm^3 of distilled water to the solid when it cools and observe. (1mk)

(IV) From the observation in (II) and (III) above, what can you say about the changes that occur. (1mk)

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(v) Name the method that has been used to prepare the salt formed in (i) (1mk)

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(b) You are provided with solid R. Use it to carry out the tests below.

(i)(i) Heat ½ spatula of the solid in a dry test tube and observe. Test the gases produced with wet litmus papers and a glowing splint. Record all your observations. (5mks)

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(II) From the observations, identify solid R. (1mk)

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(II) Put the rest of solid R in a test tube and add about 2 $cm^3$of distilled water. Shake well, retain the solution formed, and write the observation made. (1mk)

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(III) Add a few drops of sodium sulphate ($Na_2 SO_4$) solution to the solution made in step(II) above. Write your observation (1mk)

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(iv) Write an ionic equation for the reaction between solid R and $Na_2 SO_4$ solution. (1mk)

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(v) In (iii) above, two salts have been prepared. Name the method used for preparing the salts. (1mk)

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BRILLIANT STUDENTS
FORM 3 END TERM 1 SERIES 1 EXAMS

C.R.E PP1 TIME: 2½ HOURS

INSTRUCTIONS TO CANDIDATES

ANSWER ANY **FIVE** QUESTIONS IN THE ANSWER SHEETS PROVIDED.
Answer any five questions in the answer sheet provided.

1. a) Identify **five** books of the old Testament referred to as the writings (5mks)
   b) Give **five** reasons why the Bible is referred to as the word of God (10mks)
   c) Describe **five** ways in which Christians use the Bible (5mks)

2. a) Give **five** signs given to Abraham by God in his covenant (5mks)
   b) Describe **five** ways in which Abraham demonstrated his faith in God (10mks)
   c) Outline **five** lessons Christians can learn about God from Abraham's experience at Mt. Moriah (5mks)

3. a) Describe how prophet Elijah fought against corruption and injustices in Israel (8mks)
   b) How did God manifest his power during Prophet Elijah's ministry? (6mks)
   c) Explain why Christians should fight against bribery and corruption in Kenya (6mks)

4. a) Outline **four** categories of true prophets in the Old Testament (8mks)
   b) Give **six** similarities between the Traditional African and true prophets in the Old Testament (6mks)
   c) State **six** challenges which church leaders in Kenya face in their work (6mks)

5. a) Explain **four** reasons why God was to pass judgement on Israel and other Nations (8mks)
   b) Describe the call of Amos to become a prophet of God in Israel (7mks)
   c) Outline **five** ways in which Christians can help curb the evil of oppression of the poor (5mks)

6. a) State **five** reasons why sacrifices were offered in African traditional society (5mks)
   b) Outline the role of kinship system in traditional African communities (7mks)
   c) Explain **four** ways in which western education has affected kinship ties in the societytoday (8mks)

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NAME: ……..……..……

SCHOOL: ……

ADM NO: …… SIGN: …… DATE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

313/2

CHRISTIAN RELIGIOUS EDUCATION

PAPER 2

2½ HOURS.

Instructions to candidates

1. Answer any five questions in the answer foolscaps provided.
2. This paper consisted of 2 printed pages.
3. Candidates should check the questions paper to ascertain that both pages are printed as indicated and no questions are missing.
4. All questions should be answered in English.

TOTAL SCORE

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1. (a) State six old testament prophesies about the messiah according to prophet Jeremiah (Jer 23:5-6)(6mks)

   (b) Give the activities which took place on the night Jesus was born.(7mks)

   (c) Identify seven reasons why the birth of baby is a joyous event in a Christian family.(7mks)

2. (a) Identify seven teachings of Jesus about John the Baptist in Luke 7:(24-25) (7mks)

   (b) Give reasons why Jesus used parables in his teachings. (8mks)

   (c) Give ways in which the disciples demonstrated their love for Jesus.(5mks)

3. (a) Describe the parable of the good Samaritan Lk 10:(25 37) (any 5x1=5mks)

   (b) Give ways in which Jesus prepared his disciples for his coming death.(7mks)

   (c) Show how Christians are preparing the second coming of Christ.(5mks)

4. (a) State the signs of end times as taught by Jesus in Lk 21:5-19.(6mks) (any 7x1).

   (b) Explain how the events of the cross fulfilled the old testament prophesies.(8mks)

   (c)What lessons do Christians learn from the teaching on end-time?(6mks)

5. (a)Explain Jesus's teaching on the role of the Holy Spirit.(8mks)

   (b) Identify six ways in the Holy Spirit was manifested on the day of Pentecost.(6mks)

   (c) Show how the gifts of the Holy Spirit are misused in the church today.(6mks)

6. (a)Identify the elements of unity that should exist among believers according to saint Paul in Ephesians 4:1- 12. (6mks)

   (b) Explain paul,s teaching concerning the body of Christ (1 cor 12:12-27,Eph 41-12).(8mks)

   (c) State six ways in which the church promotes unity in the society today.(6mks)

Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

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Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

NAME: ……..……

SCHOOL: ……

ADM NO: …… SIGN: …… DATE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

101/1

ENGLISH

Paper 1

Time: 2 Hrs

INSTRUCTIONS TO CANDIDATES

- Write your name and index number in the spaces provided above.
- Sign and write the date of examination in the space provided.
- Answer **ALL** the questions in this question paper.
- All the answer must be written in the spaces provided in this question paper.

FOR EXAMINERS USE ONLY

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

Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

1. **Functional writing**

   You are waiting to join college after your K.C.SE examination. While reading a newspaper, you see an advertisement for a post of a clerk typist in the County Government of Kirinyaga. Write an application letter in response to the advertisement. (20 mks)

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Cloze Test

Read the passage below and fill in each blank space with an appropriate word.

Most of us just fall _____(1) bed without a great _____(2) of thought. But what you do right before bed has a real _____(3) on your mood the next day. And so successful people tend to have bedtime _____(4) that give them a head start in the morning.

Get into that habit by _____(5) when you need to wake up in the morning, work out from experience how many hours sleep you need, and count back the many hours that is so you know when to get ready for bed.

Make _____(6) a regular bedtime, and have a relaxed and _____(7) bedtime routine, because both tend to ensure a good night's sleep.

You don't have to stick to business or inspirational reading. You can catch up on news stories, skim the techie blogs or browse Twitter, or even read novels, science or philosophy.

_____(8) on your day before you settle down for the night. Think _____(9) what went well, what you're glad about and enjoyed, what progress you've made and what you've _____(10). So that you end the day in a positive, grateful mood.

2. (a) Read the poem below and answer the questions that follow;

<u>Nothing Gold can stay</u>

Nature's first green is gold,
Her hardest hue to hold,
Her early leaf's a flower;
But only so an hour,
Then leaf subsidies to leaf.
So eden sank to grief,
So dawn goes down to day.
Nothing gold can stay.
(By Robert Frost)

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Questions

(i) Identify 2 pairs of rhyming words. (2 mks)

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(ii) How has rhythm been achieved in the poem. (2 mks)

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(iii)Which words would you stress in line 7 and why? (2 mks)

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(b) Read the following piece of art and answer the questions that follow.
Politeness for politeness doesn't burn one's mouth.

(i) Name the above genre and give it meaning. (2 mks)

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(ii) Give the situation in which this sub-genre can be used. (2 mks)

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Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

(iii)Identify aspects of alliteration used in the above genre. (2 mks)

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(c) (i) Give another word that is pronounced the same as the one given below. (5 mks)

a. Furs – ……

b. Bales – **……**

c. Elicit – **……..**

d. Yaw – **……..**

e. Descent – **……**

(ii) Identify the silent letter in each of the following words. (2 mks)

a. Castle – **……..**

b. Poignant – **……..**

c. Deafening – **……..**

d. Rendezvous – **……..**

(d) Why would speakers pause in mid sentences or at the end? (2 mks)

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Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

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(e) Read the following dialogue and answer the questions that follow.

Read the following dialogue and answer the questions that follow:-

Manager	:	How are you Mr. Mwanzia? Have a seat and feel at home.
Mwanzia	:	(Oh God, I really need a job). Thank you, sir.
Manager	:	You applied for the job of accounts clerk?
Mwanzia	:	Yes, Sir. (I wonder whether he is going to give it to me)
Manager	:	Do you know the duties of an accounts clerk? Did you read our advertisement in the Newspaper?
Mwanzia	:	(Looking absent-minded, fiddling with his fingers and avoiding eye contact) Excuse me, did you say something about newspaper? Yes I read newspapers but not every day you know they are expensive. Once in a while I borrow from friends.
Manager	:	You're obviously not listening I asked you a question about our advertisement and the requirement for the job.
Mwanzia	:	(Oh God I need a job badly. I don't even have somewhere to stay). Yes, yes you talked about listening. Yes, it is important to listen to your boss.
Manager		:Mr. Mwanzia, this is the end of my interview. You'll hear from us in due course.
Mwanzia		:Thank you sir, I hope you will consider me for the job.

(i) Identify the shortcomings in Mr. Mwanzia's Listening Skills. (2 mks)

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Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

(ii) Identify the specific Listening Skills Mr. Mwanzia could have used during the interview. (2 mks)

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(f) Imagine you have been invited to speak about the role of youth in community leadership at the animal get together party of your youth group:

(i) Mention the things that you would do to ensure that your speech is successful. (2 mks)

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(ii) Mention three non-verbal cues you would use to make the speech effective. (3 mks)

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Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

NAME: ……..……..……

SCHOOL: ……

ADM NO: …… SIGN: …… DATE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

ENGLISH

PAPER 2

COMPREHENSION, LITERARY

APPRECIATION AND GRAMMAR

INSTRUCTIONS TO CANDIDATES

1. Write your name and index in the spaces provided

2. Answer all questions in this questions paper.

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

4. Candidates should check the question paper to ensure that all the papers are printed as indicated and that no questions are missing.

For examiners use only

Question	Maximum score	Candidate score
1	20	
2	25	
3	20	
4	15	
Total score		

Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

COMPREHENSION

Read the passage below and answer the questions that follow

Even though tattoos are sometimes associated with rebellion, they have long standing history among community. Tahitians, for instances used tattoos as a permanent way of preserving their culture and to show social ranking. Early Christians, on the other hand, often had the sign of a cross tattooed on their bodies, particularly their faces and arms, representing a permanent mark of the believer's faith.

The word 'tattoo' is derived from a Tahitian word tatau that means to mark. Tatau has been suggested to be the onomatopoeic sound tap, tap made by the tapping of a tattoo instrument as it works on skin while 'au' is associated with the cry of pain a person gives when being tattooed.

The first ever tattoo to be found on a human being was found on a mummified iceman in 3,300BC with 58 tattoos on his body, which contained lines and dots. This is nothing, however, compared to Scottish Tom Leopard, recorded as the world's most tattooed person, with 99.9 percent of his body covered in leopard, skin design. Guinness world records record that the only part of his body that remained is the skin between his toes and inside of his ears.

When receiving a tattoo, the skin is pierced between 50 to 3,000 times per minute by a needle in the tattoo machine. Most tattoo machines consist of four parts: the needle, the tube that holds thje ink, an electric motor, and a foot pedal that controls the movement; almost similar to how a sewing machine works.

Sterilization and disposable materials are crucial to tattooing because tattoos are created by thousands of puncture marks to the skin, each of which could be infected. The autoclave is a safe popular way to sterilize any tattoo equipment that is not disposable. A combination of heat, steam and pressure kills all bacterial and organisms to prevent infection.

In the 18^{th} and 19^{th} centuries, tattoos were dangerous to have. European 'head hunters' caused a terror by collecting tattooed Maori heads. As the odd sport became popular, more Maoris were murdered to meet the demand. In the time, slaves began being tattooed so that their heads could be cut off and sold. Luckily, however, Christian missionaries in the cook island condemned the practice of tattooing quoting the Bible "....do not cut your bodies for the dead or put marks on yourself....."They tried to stamp out the custom going as far as trying to remove tattoos by rubbing the skin with sandstone in a practice was known as 'holy stoning'. This was the primitive forerunner to modern tattoo removal known as dermabrasion, where the skin is 'sanded' to remove layers, dermabrasion has now largely given way to laser surgery as a popular means of tattoo removal.

While tattoos bring colour to humanity, research has shown that unclean tattooing practices can transmit diseases such as hepatitis B. Some pigments used in tattoos contain metals that can cause pain during a Magnetic Resonance Imaging (MRI) test, or even affect the resulting MRI image. Because of the possible negative effects tattoos pose to humans, those keen on getting

one have to be very careful before they get one. That said, it is important to note that presently, many tattoo artistes earn a good living out of the art.

QUESTIONS

a) From paragraph one; state two historical uses of tattoos. (3mks)

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b) According to the writer state the origin of the word tattoo. (1mk)

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c) What is most striking about Tom leopard? (2mks)

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d) Explain the meaning of the following words as used in the passage. (4mks)

-Mummified

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-Sterilize

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-Pigment

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-Earn a good living.

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Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

e) What was the risk associated with tattooing in the 18th and 19th centuries. (2mks)

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f) State two modern ways of tattoo removal. (2mk)

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g) Many tattoo artists earn a good living out of the art. (Add a question tag) (1mk)

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h) In note form state the negative effects of tattooing. (3mks)

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i) What are the benefits of tattooing as suggested in the passage? (2mks)

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Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

2. Read the excerpt below and then answer the questions that follow

Dr. Afolabi heard someone call him from behind. He stopped walking then turned to look. There she was! She wore a scarlet blouse, a black skirt, and red high heels. Who was she? She was not anyone he could remember. Perhaps she had called someone else. He looked around. No one else had stopped. That **made sense**: she had called his name. well, who was , and why had she chosen him?

She called again. "Dr. Afolabi! May I please have a word with you?" she asked.

"With me?" he asked. "Are you sure?"

"I am sure all right, which means you will now follow me. This way please." She led him to a corner with two chairs. So sit here" She indicated one of the two chairs. "One minute is all I'll take. Well, maybe I'll take more, but five at most" She sat on the other chair.

"One minute, five minutes-where is the difference?" he **joked**. Then he sat as well.

"My name is McKenzie, "she began. Fiona McKenzie. First, let me thank you for agreeing to sit for this interview. Wait. Can I tell you something else first before I continue? You see, whenever I say my name is McKenzie, people look at me **quizzically**, silently demanding an explanation."

"And the explanation, Ms. McKenzie, is what? He asked.

Questions

a) Why do people look at McKenzie quizzically and demand an explanation? (4mks)

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b) From your knowledge the text, explain why Fiona wants to have a conversation with Afolabi who does not seem to know her. (3mks)

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Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

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c) Identify and illustrate three stylistic devices used in this excerpt. (6mks)

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d) For each of the following character, identify and illustrate one character trait. (4mks)

i) Fiona

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ii) Dr. Afolabi

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e)She indicated one of the two chairs.

(Rewrite and add a question tag) **(1mk)**

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f) From your knowledge of this set text, how important is Dr. Afolabi to Fiona in person? (4mks)

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Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

g) Explain the meaning of the following words and phrases as used in the excerpt. **(2mks)**

Made sense

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Quizzically

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3. Read the Poem below and answer the questions that follow

The in mates
Huddled together
Cold biting their bones,
Teeth chattering from the chill,
The air oppressive,
The smell offensive
They sit and they reflect

The room self-contained,
At the corner the 'gents' invites
With the nice fragrance of ammonia,
And fresh human dung,
The fresh inmates sit thoughtfully.

Vermin perform a guard of honour,
Saluting him with a bite here,
And a bite there,
'Welcome to the world, they seem to say.

The steel lock of the door,
The walls insurmountable
And the one torching tortorous bulb
Stare vacantly at him.
Slowly he reflects about the consignment
That gave birth to his confinement
Locked in for conduct refinement
The reason they put him in the prison.

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The clock ticks
But too slowly
Five years will be a long time
Doomed in the dungeon
In this hell of a cell

a) Who is the persona in the poem? (1mk)

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b) Briefly explain what the poem is about. (2mks)

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c) Identify and illustrate three a aspects of style in the poem. (6mks)

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d) Give evidence from the poem which indicates the inmates are suffering. (3mks)

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Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

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e) Why is the fresh inmate in prison? (2mks)

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f) Identify and explain the mood of the new convict. (2mks)

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g) Explain the meaning of the following lines as used in the poem

i) That gave birth to his confinement. (1mk)

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ii) The room is self contained. (1mk)

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h) What does the steel lock of the door and the insurmountable walls suggest? (2mks)

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Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

GRAMMAR

A) Rewrite the following sentences according to the instructions given. (3mks)

i) It is not necessary for my parents to come. (Begin: There is.....

……..

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ii) I am sorry you missed lunch. (Begin: I regret.....

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iii) But for my daughters prompt action, I would be dead by now.(Begin: Had it.....

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b) Change the following sentences into the passive. (3mks)

i) The farmer had planted the beans

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ii) The principal gave the education officer the forms

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iii) We expect the strike to end soon.

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c) Fill in each blank space using the correct form of the words in brackets (3mks)

i) The hen had **.....**eggs in the bushes near the house. (lay)

ii) Tell me, **.....**a wise person search for knowledge? (do)

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iii) The watchman**.....**the lamps when he heard commotion behind the office. (light)

d) Change the following sentences from direct speech. (2mks)

i) "You are invited to my birthday on Sunday,"Mwikali told me.

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ii) "I will cook supper," Wangui offered.

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e) Fill in the blank spaces with the appropriate form of the word in brackets. (2mks)

i) His**.....**is amazing high. (Popular)

ii) The shepherd travelled**.....**in search of pasture. (east)

f) Rewrite the following sentences replacing the underlined idiomatic expressions. (2mks)

i) His friends made him lose heart on carrying out the project

ii) He was green with envy

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Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

NAME: ……..……..……

SCHOOL: ……

ADM NO: …… SIGN: …… DATE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

Kenya Certificate of Secondary Education

Instructions to candidates:

- Write your name, Adm No., in the spaces provided.
- Sign and write the date of the examination
- Answer three questions only

For examiner's use only

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

Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

1. **Imaginative Composition (Compulsory)** **(20 marks)**

Either

(a) Write a composition beginning:
As I walked along the lonely path that evening, it was evident that I will reach home late**...**

OR

(b) Write a composition that explains the saying:
"Pride comes before a fall." (20marks)

2. **<u>The compulsory set text</u>** (20 marks)

John Lara, The Samaritan

"Leaders who are motivated by greed subject their citizens to suffering". Write an essay in support of this statement with reference to John Lara's play *The Samaritan.*

3. **The Optional Set Texts**

Either

(a**) The Short Story**

A silent song and other stories Godwin Siundu (Ed.)

Failure to listen and heed good advice by people around us can result in suffering. Drawing your illustrations from Stanley Gazemba's "Talking Money," justify this assertion. (20 marks)

OR

(b) **Drama**

Adipo Sidang' Parliament of Owls

"Women and people from minority groups can rise against all odds to bring change without necessarily using violence." Basing your argument on Adipo Sidang's *Parliament of Owls,* write an essay to support this statement.

Or

(c) **The Novel**

Kazoo Ishuguro, An Artist of the Floating World

War has a way of affecting property and people's lives. Drawing examples from the life of Masuji Ono in Ishiguro's. *An Artist of the Floating World*, write an essay to show the truth of this statement.

Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

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Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

NAME: ……..……..……

SCHOOL: ……

ADM NO: …… SIGN: …… DATE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

312/1

GEOGRAPHY

PAPER 1

TERM ONE

2 ¾ Hours

GEOGRAPHY FORM THREE PAPER 1

INSTRUCTIONS TO CANDIDATES

(a) This paper has two sections A and B.
(b) Answer all questions in section A.
(c) Answer question 6 and any other two questions from section B
(d) All Answers to be written on booklet provided
(e) Candidates should check to ascertain all questions are printed
(f) Candidates should answer the questions in English.

TOTAL SCORE

Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

SECTION A

ANSWER ALL QUESTIONS

1. (a) Identify two types of environment (2mks
   (b) mention three areas covered in physical geography (3mks)

2. (a) State components of the Solar system (3mks)
   (b) List planets in the solar system without satellites (2mks)

3. (a) Mention types of folds (3mks)
   (b) Name fold mountains found in the following continents (2mks)
   South America
   North Africa

4. (a) Define the tem Earth movement (2mks)
   (b) State three causes of earth movement (3mks)

5. (a) Define the following terms
   (i) Divide/watershed (1mk)
   (ii) Confluence (1mk)

   (b) Identify ways in which a river eroded its channel (3mks)

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SECTION B

Answer question 6 and any other two questions

6. Study the Migwani Map sheet 151/1

   Scale: 1:50000 and use it to answer the questions

   (a) State types of scales used on the Map extract (2mks)

   (i) Name two man-made features found East of Easting 00 and north of Nothing 80 (2mks)

   (ii) Give the six figure grid references of Kauma dam top the South West of the Map extract (2mks)

   (b)(i) What is the length in kilometers of all weather road Bound surface C94 from the junction with the Dry weather Road D502 to northing 84? (2mks)

   (ii) Calculate the area enclose by all weather loose surface road to the North West of the Map. Give your answers in KM^2

   (iii) Draw a square 14cm by 14cm to represent a section of the map enclosed by easting 99 and Northing 70 on it mark and name the following features.

   (a) Mboni Dam

   (b) Dry weather road south of Northing 91

   (c) Iko shops

   (d) River ngoo (5mks)

   (iv) Citing evidence from the Map, give three functions of Gwani town. (3mks)

(a) (i) Identify two types of vegetation found North of Northing 68 (2mks)

   (ii) describe the drainage of the area covered by the Map (5mks)

Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

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

(ii) Give two types of intrusive igneous rocks (2mks

(iii) State three characteristics of Sedimentary rocks (2mks)

(b) The table below shows some original rocks

Name their metamorphic equivalent

(Original rock)	Metarmophic	
Granite	…….	(1mk)
Sandstone	…….	(1mk)
Clay	…….	(1mk)
Limestone	…….	(1mk)

(b) Describe three ways through which original rocks turn into metamorphic rocks (6mks)

(c) You are supposed to carry out field study on rocks around your school

(i) Give two methods of data collection you would use (2mks)

(ii) State two objectives of your study (2mks)

(iii) Give reasons as to why it would be necessary to carry geological hammar (1mk)

(iv) State three problems you are likely to encounter in the course of the field study (3mks)

8. (a) Define physical weathering (2mks)

(b) Describe three processes of physical weathering (6mks)

(c) (i) Explain two factors which accelerate the rate of weathering in equatorial areas (4mks)

(ii) Explain three significance of weathering to human activities (6mks)

(d) You are planning to carry out a field study on weathering in the area around your school

(i) State two ways you would prepare for the study (2mks)

(ii) Give three chemical weathering processes you are likely to study (3mks)

(iii) What follow-up activities would you be involved in after the field study

Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

(2mks)

9. (a) (i) What is faulting (2mks)
(ii) Name four types of faults (4mks)

(b) (i) State three causes of faulting (3mks)
(ii) Using well labeled diagrams, describe the formation of rift valley by compressional forces (6mks)
(iii) Apart form Rift Valley name three features formed by faulting (3mks)

(c) You intend to carry out a field study on faulting at the Rift Valley.
(i) Identify four sources of data you would use prepare for the study (4mks)
(ii) State three positive effects of faulting to human activities you are likely to identify (3mks)

10. (a) (i) Differentiate between weather and climate (2mks)
(ii) Identify any three elements of weather (3mks)

(b) State the apparatus found in Stevenson screen (3mks)

(c) The table below represents temperature and rainfall data of a certain station. Use i to answer question c(i) (ii) (iii)

Months	J	F	M	A	M	J	J	A	S	O	N	D
Temp in 0C	24	28	24	24	22	22	20	20	23	24	28	29
Rainfall(mm)	12	15	60	78	85	40	30	20	85	90	21	2

(i) Calculate annual range of temperature
(show your calculations) (2mks)

(ii) Calculate annual rainfall (2mks)

(iii) Describe the climate of this station (5mks)

(d) (i) What's weather forecasting (2mks)

(ii) State effects of weather furcating on human activities (3mks)

(iii) List factors that influence temperatures of a place (3mks)

Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

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Prefer Calling Sir Obiero Amos @ 0706 851 439 for Marking Schemes

NAME: ……...……..……

SCHOOL: ……

ADM NO: …… SIGN: …… DATE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

KENYA CERTIFICATE OF SECONDARY EDUCATION

312/2

GEOGRAPHY

PAPER II

FORM 3

TIME 2 ½ HOURS

INSTRUCTIONS TO CANDIDATES

a) This paper consists of two sections: A and B.

b) Answer ALL the questions in section A. in section B, answer question 6 and any two other questions.

c) All answers must be written in the answer booklet provided.

TOTAL SCORE

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1. (a) Define the term 'photograph' (2 mks)
   (b) List three limitations of using photographs. (3 mks)

2. (a) State the three types of fieldwork. (3 mks)
   (b) List three ways through which data may be presented. (3 mks)

3. (a) What is mining? (2 mks)
   (b) Name three methods of underground mining. (3 mks)

4. (a) What is forestry? (2 mks)
   (b) Name the three major natural forests of the world. (3 mks)

5. (a) State the two characteristics of both primary and secondary data. (2 mks)
   (b) Write down two methods that can be used in taking measurements as a method of collecting data. (2 mks)

SECTION B:

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

6. (Compulsory)
   You intend to carry out a field study on the weather experienced in the locality of your school.
   (a) (i) State four ways you would prepare for the study. (4 mks)
   (ii) State two hypothesis for the study. (2 mk)
   (iii) Describe how you would use the raingauge during the study. (4 mks)
   (iv) State how you would record the information while in the field. (2 mks)
   (b) What is the importance of a reconnaissance in field work. (5 mks)
   (c) State two advantages and two disadvantages of observation as a method of data collection. (4 mks)
   (d) State four factors that must be considered when preparing a questionnaire. (4 mks)

7. (a) Explain how the following factors influence the exploitation of minerals.
   i. Technology (2 mks)
   ii. Quality of the ore (2 mks)
   iii. Accessibility (2 mks)
   (b) Explain four factors which influence the occurrence of minerals. (8 mks)
   (c) Name the minerals found in the following areas in East Africa. (5 mks)
   (i) Kariandusi –
   (ii) Kerio valley –
   (iii)Mwadui –
   (iv)Ruhuhu valley –
   (v) Tororo -
   (d) Explain three ways in which minerals contribute to the economy of Kenya. (6 mks)

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8. (a) What is 'dead ground' in photograph work? (2 mks)
   (b) Give two differences between aerial photographs and ground photographs. (4 mks)
   (c) Below are the nine parts of a photograph, name the parts marked A, B, C and D. (4 mks)

A		
	C	B
D		

   A
   B
   C
   D
   (d) Name the three types of ground photographs. (3 mks)
   (e) Describe the clues that may be used to interpret the following in a photograph:-
      i. Relief of an area. (3 mks)
      ii. Drainage of an area. (3 mks)
      iii. Industrial and mining activities. (3 mks)
   (f) State three advantages of photographs. (3mks)
9. (a) What is statistical data? (2 mks)
   (b) Name the two types of questionnaires. (2 mks)
   (c) State two disadvantages of interviews as a method of data collection. (2 mks)
   (d) List the three types of sampling. (3 mks)
   (e) Study the data in the table below and answer the questions that follow.

Kenya: Leading export crops by value (Ksh. Million)

CROP	TEA	HORTICULTURE	UNROASTED COFFEE
2000	35150	21210	11700
2001	34480	19840	7460
2002	34370	28330	6540
2003	33000	36480	6280
2004	36000	39540	6940

i. Calculate the percentage increase in values of each export commodity between the years 2003 and 2004. (6 mks)
ii. On a graph paper, draw a comparative line graph to represent the data in the table above. (6 mks)
iii. What two conclusions about the three commodities can you draw from the graph? (2 mks)
iv. State two advantages of using comparative line graphs. (2 mks)

10. (a) Distinguish between indigenous forests and planted forests. (4 mks)
    (b) Explain how the following factors influence the distribution of natural forests.(6 mks)
       i. Temperature
       ii. Altitude
       iii. Soils
    (c) State four characteristics of temperate hardwood forests. (4 mks)
    (d) Explain three factors that favour the development of softwood forests in Canada.(6 mks)
    (e) State five problems facing forestry in Kenya. (5 mks)

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NAME: ……..……..……

SCHOOL: ……

ADM NO: …… SIGN: …… DATE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

311/1
HISTORY AND GOVERNMENT
PAPER 1
2 ½ HOURS

Instructions to candidates

1. This paper consists of three sections A, B and C.
2. Answer all the questions in section A; three in section B and any two in section C.
3. Answers to all the questions must be written in the answer booklet provided.

TOTAL SCORE:

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SECTION A: 25 MARKS

Answer All Questions in this section.

1. Name two periods in the history of Kenya. (2 mks)
2. Give two sources of information on Kenyan history. (2 mks)
3. Identify two archaeological sites in Kenya. (2 mks)
4. Give one theory that explains the origin of Kenyan communities. (1 mk)
5. Name two communities of the coastal Bantu. (2 mks)
6. State two duties of the Orkoiyot among the Nandi. (2 mks)
7. Give one reason which led to the decline of Gedi during the 15^{th} century. (1 mk)
8. Identify two communities that acted as middlemen in the Indian Ocean trade. (2 mks)
9. Give two reasons why the Oman Arabs were interested in ruling the coast of East Africa.(2 mks)
10. Give the meaning of citizenship. (1 mk)
11. Identify one developmental right of children. (1 mk)
12. State one way in which the constitution promotes national integration in Kenya. (1 mk)
13. Give one type of direct democracy. (1 mk)
14. Name the leader of the German East African Company in East Africa. (1 mk)
15. Give one major significance of the Anglo German Agreement. (1 mk)
16. Identify two activities of the Imperial British East Africa Company between 1888 and 1895. (2 mks)
17. Identify one response of Kenyan people to the establishment of colonial rule. (1 mk)

SECTION B: (45 MARKS)

Answer any three questions from this section in the booklet provided.

18. (a) Give five reasons for the migration and settlement of the Maasai in Kenya in the 19^{th} century. (5 mks)

(b) Explain five results of the interaction between the Bantu and other Kenyan communities. (10 mks)

19. (a) Identify five factors that facilitated the coming of the Arabs to the Kenyan Coast. (5 mks)

(b) Describe the impact of the Indian Ocean trade on the people of East Africa. (10 mks)

20. (a) State three ways in which the Christian Mission stations facilitated the spread of Christianity in Kenya. (3 mks)

(b) Explain six challenges that the Christian Missionaries faced in Kenya in the 19^{th} century. (12 mks)

21. (a) Give five reasons why the British were interested in colonizing Kenya. (5 mks)

(b) Explain five results of the Wanga collaboration with the British colonial administration. (10 mks)

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SECTION C: 30 MARKS

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

22. (a) Give five limitations of the right to life. (5 mks)

(b) Explain five values of good citizenship in Kenya. (10 mks)

23. (a) State three political causes of conflict in Kenya. (3 mks)

(b) Explain six factors that promote national unity in Kenya. (12 mks)

24. (a) Identify three national symbols of the republic of Kenya. (3 mks)

(b) Describe six challenges faced in giving Kenyans a new constitution. (12 mks)

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SCHOOL: ……

ADM NO: …… SIGN: …… DATE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

HISTORY AND GOVERNMENT
FORM 3
PAPER 2
TIME: 2 ½ HRS

INSTRUCTIONS TO CANDIDATES

(a) This paper consists of three sections A, B and C
(b) Answer all questions in section A, three questions from section B and two questions from section C.
(c) Answer to all the questions must be written in the answer booklet provided.
(d) Candidates should check the Question paper to ascertain that all the pages are printed and that no Questions are missing.
(e) Candidates should answer the questions in English.

TOTAL SCORE

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SECTION A 25 MARKS

Answer all the Questions in this section

1. Give the main method used by anthropologist to gather their historical data. (1mk)

2. Which is the title of the tools made by the new Stone Age man? (1mk)

3. Give the main reason why early agriculture developed in Egypt. (1mk)

4. Apart from tool making, identify two other early industries of the early man. (2mks)

5. Name two methods of irrigation used during early agriculture in Egypt (2mks)

6. Identify two slave ports on the western of Africa coast during the Trans-Atlantic Trade. (2mks)

7. Why was the Trans-Atlantic Trade referred to as triangular trade? (1mk)

8. State two characteristics of macadam roads.(2mks)

9. Mention two negative impacts of internet today (2mks)

10. List two advantages of fire and smoke signal used in ancient days.(2mks)

11. State two factors that led to the decline of moroe as an urban centre. (2mks)

12. State how William morton's invention improved the lives of people during operation. (1mk)

13. Name the least common type of constitution. (1mk)

14. Name two countries in west Africa that were colonized by the British.(2mks)

15. State two economic effects of the Chimwenga war. (2mks)

16. Identify the name of the treaty signed between Samori Toure and the French.

SECTION B (45 MARKS)

*Answer any **three** Questions from this section.*

17. a. Give three reasons why Africa is considered the cradle of mankind (3 mks)

b. Explain six ways in which Homo Erectus attempted to improve his way of life.(12mks)

18. a. State five uses of oil during the industrial revolution. (5 mks)

b. Explain five factors that undermined industrial growth in India. (10 mks)

19. a. State three economic activities that led to the growth of Buganda Kingdom during the pre-colonial period.(3mks)

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

20. a. Give three reasons why the Buganda collaborated with British colonial rulers. (5mks)

b. Explain five results of the Buganda collaboration with the British during the colonial period.(10mks)

SECTION C (30 MARKS)

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*Attempt any **two** Questions from this section*

21. a. Outline the factor that united the people of Asante empire during the pre-colonial period (3mks)

b. Explain the similarities between Buganda and Asante political organization (12mks)

22. a. State factors that led to the growth of Johannesburg town. (5mks)

b. Expalin the impacts of Agrarian and industrial developments on urbanization. (10mks)

23. a. State five reasons that led to the failure of maji maji rebellion in 1905-1907(5mks)

b. Explain five reforms that were introduced by the German administration after the maji maji uprising (10mks)

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JINA: ……..…….……

SHULE: ……

NAMBARI YA USAJILI: …… SAHIHI: ……. TAREHE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

102/1

KISWAHILI

KARATASI YA 1

MUDA: SAA 1¾

KIDATO CHA TATU

MAAGIZO

(a) Jibu Maswali yote

(b) Swali la kwanza ni la lazima

Swali la lazima

1. Andika dayalojia baina ya mtu na rafiki yake ambao ndiyo kwanza wakutane toka walipoachana katika shule ya msingi.
2. Andika insha juu ya methali “Mti mkuu ukigwa wana wa nyuni huyumba”
3. Kuboresha maisha katika magereza ni kukuza uhalifu. Jadili
4. Niliskia jina langu likitajwa. Mmoja akaniita nikatoka nje. Nilisikia msongamano wa watu nyimbo za ushindi zikapanda juu!..... Endeleza kisa hiki.

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JINA: ……..…….……

SHULE: ……

NAMBARI YA USAJILI: …… SAHIHI: …… TAREHE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

MTIHANI WA MWISHO WA MUHULA WA KWANZA

KISWAHILI KIDATO CHA TATU

KARATASI YA PILI

MUDA: SAA 2 ½

MAAGIZO

JIBU MASWALI YOTE

SWALI	UPEO	ALAMA
1	15	
2	15	
3	40	
4	10	
JUMLA	**80**	

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1. UFAHAMU

Soma taarifa ifuatayo kisha ujibu maswali;

(Watu wamesimama nusu mduara chini ya mti mkubwa. Wanafanya kelele na kuinua silaha zao. Mbele yao kuna viongozi. Hivi ndivyo mambo yalivyoendelea.)

Mkuu wa wilaya: Ningependa kiongozi wenu awasilishe matatizo yenu. Tafadhali ketini tumsikilize.

Mzee: Wakale hawakuropoka walipolonga kuwa ng'ombe akivunjika guu malishoni, hujikokota zizini. Sisi Walukenya tumepata dhiki isiyo kifani. Chanzo cha idhilali yetu ni wanyama pori. Ninasema uongo?

Umati: *(Kwa kishindo)* HAPANA!

Mzee: Tuvumilie hadi lini? Tumeamua kupiga milundi kuleta malalamiko yetu kwa serikali. Tatizo letu la kwanza ni usalama. Wiki hii tumezika vijana watano. Mwezi uliopita, tulipoteza watu watatu. Wote hawa ama wamevyogwa na ndovu au wamegotwa na vifaru kama sio nyati. Udhia tuupatao ni kuwa tunapowazika fisi nao huwazikua. Linalotuudhi zaidi ni kuwa serikali haitoi fidia na mara chache inapotoa, ni shilingi thelathini elfu tu. Yaani, maisha ya binadamu ni rahisi hivyo? Wanaonusurika mashambulizi hubidi wagharamie matibabu yao wenyewe. Walukenya hawana usalama. Linalotisha mno ni kuwa siku hizi wanyama mwitu wanatuvamia hata mchana. Juzi, ndovu alishambulia matatu barabarani na kujeruhi watu wengi. Shughuli zetu za kila siku zimekwama. Mbali na hayo makazi, nyua na rasilmali kama miti na mito inaharibiwa na hawa wanyama, *(Akigeukia umma)* Kweli au sio?

Umati: *(Kwa sauti)* Kweli kabisa!

Mzee: Tatizo la tatu linahusu mifugo. Hakuna aliye salama. Ng'ombe wanaliwa ovyo na simba. Chatu wanameza kuku, huku nyoka wadogo wakibugia mayai. Mwezi uliopita, chui waliwaua mbuzi thelathini wa Mzee Kitainge na kula ini la mmoja tu. Mifugo ni uhai wa Walukenya. Watakuwa nini bila mifugo? Isitoshe, wanyama pori wamedidimiza malisho ya mifugo yetu. Tuingiapo mbugani, tunashtakiwa. Tangu lini wanyama pori wakawa muhimu kuliko binadamu? Halafu mara kwa mara mifugo wanaambukizwa maradhi sugu. *(anakohoa kidogo na kuendelea)* La nne ni kuwa, tangu jadi, Walukenya wanajilisha lakini siku hizi wanaomba chakula. Kwa nini Wanyama wameharibu mimea yetu. Tumekataa kuhangaishwa zaidi. Tumeandaa silaha na kesho tunaanza

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kuwaangamiza wanyama pori.*(Anaketi huku akishangiliwa kwa vifijo na nderemo).*

Mkuu wa wilaya: Afisa Tarafa, Chifu, Madiwani na Walukenya wote. Hamjambo? Kwa kweli mali na maisha ya watu wengi yamepotea. Nawashukuru kwa uvumilivu wenu. Nawahakikishia kuwa penye wazee hapaharibiki neno. Naahidi kuwa serikali itatatua matatizo yenu. Hakuna haja ya kushambulia wanyama pori. Hatua hiyo ni kama kuchukua sheria mikononi mwenu. Serikali haitasita kuchukua hatua kali kwa wahusika.

Umati: Aaah!

Mkuu wa wilaya: Serikali inashughulikia migogoro baina ya binadamu na wanyama pori katika nchi nzima. Imeunda jopo kukusanya maoni kuhusu fidia na suluhisho. Jopo hili litakuwa hapa kesho kutwa. Nawahimiza mje kwa wingi na mtoe maoni yenu.

Mtu: Maoni na tunateseka?

Mkuu wa wilaya: Tunapongojea matokeo ya jopo, serikali imechukua hatua za dharura. Hizi ni pamoja na kuanzisha kikosi maalumu cha askari wa kulinda wanyama na binadamu. Serikali pia itajenga ua wa umeme kuzunguka mbuga ili wanyama wasitoke. Zaidi ya hayo, serikali itajenga mabwawa mbugani na kuimarisha Idara ya Tiba kwa mifugo wilayani. Haya yamefanywa ili kulinda wanyama pori. Wanyama pori hawana uwezo wa kujitetea. Hata hivyo, sote twajua manufaa yao. Ili hatua za serikali zifaulu na ili muishi na wanyama kama ilivyokuwa tangu jadi, naomba mfanye mambo fulani. Kwanza, ningependa mjizuie kuwinda wanyama pori. Hili hutatiza mkufu wao wa utegemezi. Vilevile, msiwachokoze wanyama.Jambo hili huwakasirisha na kuwafanya kuwashambulia. Pili, tujizuie kuingilia njia za wanyama za kuhama, pamoja na malisho yao. Mwisho, mchukue hatua za kujilinda kutokana na wanyama pori. Hizi ni pamoja na kuzungushia makaazi nyua na kupiga ripoti kwa walinda mbuga hatari itokeapo. Mungu aliwapa Adamu na Hawa jukumu la kulinda rasilmali zote ardhini. Kama vizazi vyao, nasi lazima tubebe jukumu hilo kifuani. Ahsanteni.

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Maswali:

1. Kwa kurejelea taarifa, eleza ukweli wa methali "Ng'ombe akivunjika mguu malishoni hujikokota zizini kusaidiwa". (alama 2)

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2. Taja malalamiko manne yaliyowasilishwa na wanakijiji. (alama 2)

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3. Kuvamiwa kwa wanakijiji na wanyama pori kuna athari gani kwa mifugo wao? (alama 2)

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4. Ni hatua gani ambazo serikali imechukua ili kutatua migogoro baina ya wanyama na binadamu? (alama4)

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5. Ni kwa nini mzee anatumia balagha katika mazungumzo yake? (alama 1)

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6. Eleza maana ya misemo hii kama ilivyotumiwa katika taarifa. (alama 2)

(a) Kupiga milundi

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(b) Kuchukua sheria mkononi

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7. Eleza maana ya maneno haya jinsi yalivyotumiwa katika taarifa. (alama 2)

(i)Idhilali

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(ii) Udhia

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(iii) Wakigubia

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(iv) Jopo

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UFUPISHO

Maelfu ya watu duniani wako hatarini kupoteza maisha yao kwa sababu ya uvutaji sigara.

Wataalamu wanasema mtu anayevuta pakiti mbili za sigara kwa moja, anapunguza muda wa maisha yake kwa asilimia 30. Inaelezwa kwamba ingawa wavutaji wengi wa sigara katika nchi za Ulaya na Marekani wanapunguza ama kuacha kabisa uraibu huo, wavutaji katika nchi zinazoendelea wanazidi kuongezeka kila kukicha.

Kwa mujibu wa wataalamu, vijana huanza kuvuta sigara kwa sababu ya utundu na kutaka kujua ladha ama mhemko unaosababishwa na sigara. Wengine huanza kuvuta sigara wakifuatisha wacheza sinema maarufu, wanamziki ama baadhi ya watu wanaowaenzi.

Sigara ama tumbaku husababisha athari mbalimbali kwa watumiaji wake, mingoni mwake magonjwa ya kifua kikuu, kansa ya mapafu ama utumbo na wakati mwingine, kifo. Kwa mujibu wa watafiti, watu wanaovuta sigara kwa miaka 20 na zaidi wako hatarini kufa kwa ugonjwa wa kansa ya utumbo. Hii ni kwa sababu moshi wa sigara unaweza kusababisha uvimbe kwa utumbo mkubwa na rektamu.

Uvutaji sigara unachangia asilimia 80-90 ya magonjwa ya kifua ama njia ya hewa ikiwemo kikohozi, pumu,homa ya mapafu na kansa ya mapafu. Mvutaji sigara hushambuliwa mara kwa mara na magonjwa ya koo, mafua na kikohozi kisichosikia dawa.

Uraibu huu pia huchangia asilimia 30 ya vifo vinavyosababishwaa na magonjwa ya moyo. Hewa ya ‘Carbon monoxide’ iliyopo kwenye sigara inaongeza kiasi cha ‘cholestrol’ ambayo huziba mishipa ya damu. Uvutaji sigara husababisha kuta za mishipa ya damu zikakamae;hali ambayo ni hatari na inaweza kusababisha mishipa ya damu ipasuke. Kemikali ya ‘nicotine’ iliyopo ndani ya ‘sigar’ inaweza kuongeza shinikizo la damu, mapigo ya moyo na kupunguza kiasi cha oksijeni kwenye misuli, hasa ya moyo. Mvutaji sigara anaweza kufa ghafla, kwani mapigo ya moyo yanaweza kusimama ghafla kwa sababu ya shinikizo kwenye moyo wake linalosababishwa na moshi ama kemikali zilizopo kwenye sigara.

Kwa wanawake, uvutaji sigara ni hatari zaidi kuliko ilivyo kwa wanaume. Mwanamke ambaye anatumia vidonge vya kuzuia mimba na anavut sigara anaweza kupatwa na athari kubwa za kiafya na kuhatarisha maisha yake. Hatari zinazomkabili ni pamoja na damu kuganda katika sehemu za miguu na katika moyo. Matatizo hayo yanaweza kusababisha athari zaidi wakati wa ujauzito ama wakati wa kujifungua na hivyo kupelekea mama kufa ghafla ama baada ya kujifungua.

Pia, kwa mujibu wa utafiti, watoto wanaozaliwa na akina mama wanaovuta sigara wakiwa wajawazito aghalabu huvuta sigara wakiwa na umri mdogo sana. Tumbaku ama bidhaa zinazotokana na tumbaku huweza kupenya katika plasenta na kuingia katika mfumo wa damu ya mtoto aliye tumboni na hatimaye katika ubongo kwa hivyo kupelekea mtoto huyo ajaribu kuvuta sigara akiwa mdogo. Uvutaji wa sigara kwa mama mjamzito unaeleweka wazi kwamba

humuathiri mtoto aliye tumboni kwanu huathiri ulimi na kuwafanya wawe na uzito wa kuongea na pia huwa wazito kujifunza na huathiri mapafu yao katika siku za baaadaye za uhai wao.

Nchini Kenya, serikali sasa inapanga kuanzisha mbinu na sheria za kuhakikisha kuwa wavutaji sigara hawavuti katika maeneo ya umma. Sheria hizo zinapiga marufuku uvutaji sigara kwenye maeneo yote ya umma. Tayari, taasisi mbalimbali za umma na za kibinafsi zimeandikwa mabango ya kuwaonya wavutaji dhidi ya kuvuta sigara katika mazingara ya taasisi hiyo.

Maswali.

a). Eleza athari za sigara kwa wanawake (Maneno 25-30) (alama7)

Nakala chafu

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Nakala safi

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b). Madhara ya uvutaji sigara ni yepi? (maneno 45-50) (alama 8)

Nakala chafu

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Nakala safi

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MATUMIZI YA LUGHA

a). Toa mifano miwili ya vipasuo –ghuna (alama 2)

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……

b). Ainisha viambishi katika sentensi ifuatayo (alama 3)

Atamtawadhisha

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c). Bainisha aina za nomino zilizopigiwa mstari katika sentensi hii. (alama 4)

Kucheka kwa **Bwana Omari** kulionyesha **raha** baada ya kuionja **asali**

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d). Neno **'tikiti'** lapatikana katika ngeli mbili tofauti. Taja ngeli hizo huku ukitungia sentensi mbili tofauti kubainisha matumizi. (alama 4)

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e). Andika sentensi ifuatayo upya kwa kubadilisha vitenzi vilivyopigiwa mstari kuwa nomino.

(alama2)

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Yeye <u>hufuma</u> mikeka vizuri na <u>kuwavutia</u> wengi.

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f).Akifisha sentensi ifuatayo. (alama 2)

nilimkuta mkuu wa wilaya ya munyaka akisoma kitabu kiitwacho kiu.

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g). Andika katika msemo halisi (alama 2)

Njeri aliwaambia rafiki zake kuwa wangekuwa wakienda kwao siku zote kumuona.

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h). Bainisha aina ya vitenzi katika sentensi ifuatayo. (alama 2)

Mama alikuwa akienda kwake usiku

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i).Eleza maana ya misemo ifuatayo (alama 2)

(i). Msumari wa moto juu ya kidonda

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(ii). Giza la ukata

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j). Bainisha aina ya vielezi namna katika sentensi ifuatayo (alama 2)

Makame alimpenda sana mwanamke kwa dhati licha ya visa vyake vingi mno vya ukaidi

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k). Andika udogo kisha wingi wa sentensi hii (alama 4)

Paka yuyu huyu hula panya na kunywa maziwa kila siku

<u>Udogo</u>

……

……

<u>Wingi</u>

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……

l).Kanusha (alama 3)

Ukimwona mwalimu mwambie nitamtembelea kesho asubuhi au jioni

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m). Andika kinyume cha sentensi hii (alama2)

Mjomba hufuja mshahara wake kila mwezi

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n). Eleza maana mbili za sentensi ifuatayo (alama 2)

Mabaharia walisema hawatawasili Ijumaa

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o). Andika visawe vya: (alama 2)

i). Bohari……..

ii). Soko…….

p). Tunga sentensi ukitumia –angu kama: (alama 2)

i). Kiwakilishi

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ii). Kivumishi

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ISIMU JAMII

Soma mazungumzo yafuatayo kisha jibu maswali

A: Sasa!

B: Fit!

A: Umepata ngapi?

B: Four twenty.

A: Utaitwa National School?

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B: Sijui na wewe?

A: Nitaangalia yangu tomorrow.

B: Uta-come kunieleza?

A: Yes au nikuesemesie.

B: Okey nitakuremind.

A: Bye.

B: Sawa nisalimie buda.

Maswali

a). Hii ni sajili gani? (alama 2)

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b). Unadhani wazungumzaji ni wa rika gani? Kwa nini? (alama 2)

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c). Taja sifa bainifu za sajili hii (alama 6)

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JINA: ……..…….……

SHULE: ……

NAMBARI YA USAJILI: …… SAHIHI: …… TAREHE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

102/3
KISWAHILI
FASIHI YA KISWAHILI
MUDA: SAA $2^1/_2$

MAAGIZO:

a) Andika jina lako na nambari yako ya usajili katika nafasi ulizoachiwa hapo juu
b) Tia sahihi kisha uandike tarehe
c) Jibu maswali manne pekee
d) Swali la kwanza ni la lazima
e) Maswali hayo mengine matatu yachaguliwe kutoka sehemu nne zilizobaki yaani Ushairi, Tamthilia, Hadithi Fupi na Riwaya
f) Usijibu maswali mawili kutoka sehemu moja
g) Majibu yote lazima yaandikwe kwa lugha ya Kiswahili

KWA MATUMIZI YA MTAHINI PEKEE

Swali	Upeo	Alama
1	20	
	20	
	20	
	20	
Jumla	80	

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SEHEMU A:

FASIHI SIMULIZI

LAZIMA

1.Soma utungo ufuatao kisha ujibu maswali

Mimi ni Olichilamgwara

Olichilamgwara mwana mbee wa Ojilong

Ojilong wa Marukatipe

Wazee waliposhindwa

Nilivuka misitu milima na mito

Ni mimi jabali

Kipande cha jifya la mama

Nilipokuwa nalisha mifugo

Nilisikia baragumu inalia

Baragumu ya wito

Mifugo wa mtemi wamechukuliwa

Nikachukua mkuki wangu

Wenye kigumba cha mti

Nikachukua upanga wangu

Wenye makali kama mmweso wa radi

Upanga uliopasua pembe za nyati kwa dhoruba moja

Ndipo nilipofyatuka kasi kama umeme

Kufumba kufumbua nikawakaribia nduli

Kusikia vishindi vyangu wakaanza kubabaika

Kuona kifua changu cha manyoya ya kanga wakatetemeka

Macho yangu makali kama kaa la moto yalipowatazama wakakimbia

Mkuki wangu ulipaa kama umeme

Wote wakalala

Mifugo wakanifuata…

Mko wapi vijana

Mmekuwa kama majivu baada ya moto kuzimika?

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Maswali

a) Tambua kipera ulichokisoma na udhibitishe jibu lako (al. 2)

b) Tambua sifa za jamii zinazosawiriwa katika utungo huu (al. 2)

c) Kwa kutoa mifano bainisha vipengele vine vya kimtindo vilivyotumiwa na nafsinenial. 4)

d) Fafanua sifa nne za kipera hiki (al. 4)

e) Eleza mambo manne ambayo mtendaji wa kipera hiki anaweza kufanya ili kufanikisha utendaji wake. (al. 4)

f) Fafanua mikakati ambayo jamii inaweza kutumia ili kuzuia tungo kama hizi kufifia(al. 4)

SEHEMU YA B: USHAIRI

Jibu swali la 2 au 3

2. Soma shairi lifuatalo kisha ujibu maswali:

Binadamu hatosheki, ni kiumbe chenye zani, kweli mja hapendeki,

Kwa kweli haaminiki, hila ameficha ndani, la wazi ni unafiki

Ukweliwe haafiki, njama zake zi moyoni, usimwone ni rafiki

Mtu kuwa na tamaa, akitaka kiso chake, ni hatari kama nyoka.

Wengine watakuua, wakiona una pesa, hata zikiwa kidogo,

Hizo kwao ni maua, hupupiwa zikatesa, wakazifuata nyago,

Hadi kwenye wao ua, pasipo hata kupesa, wala kukupa kisogo,

Mtu kuwa na tamaa, akitaka kiso chake, ni hatari kama nyoka

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Pindi kinunua kitu, hafurai Shaitani, bali tajawa chukizo,

Mtu kiwa mtukutu, tanunua mtimani, kwalo lako tekelezo,

Tamko lake ‘Subutu’, kuondoa tumaini, na kukuulia wazo,

Mtu kuwa na tamaa, akitaka kiso chake, ni hatari kama nyoka,

Aliye na taraghani, taabu kuishi naye, kazi yake kujidai,

Takusema faraghani, asosema kiwa naye, kupendeza maadui,

Hana faida nyumbani, ni mtu akuchimbaye, mradi usitumai,

Mtu kuwa na tamaa, akitaka kiso chake, ni hatari kama nyoka,

Kwa hakika ni balaa, kumkirimu mchawi, aliejaa uchoyo,

Bahati ina hadaa, kukupa alo sadawi, aibatili rohoyo

Mipangoyo kwake jaa, na nia ya ustawi, huwiza vunja kaniyo,

Mtu kuwa na tamaa, akitaka kiso chake, ni hatari kama nyoka

Ninacho change killo, ninalia sanasana, kinyesi nimetupiwa,

Ningetoa azimio, lakini uwezo sina, kwa matatizo kuambiwa,

Ama nitumie mbio, fuadi ninanena, akilini nazuiwa,

Mtu kuwa na tamaa, akitaka kiso chake, ni hatari kama nyoka.

MASWALI:

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

b) Fafanua mambo matatu ambayo nafsineni analalamikia. (alama 3)

c) Ainisha shairi hili kwa kuzingatia vigezo vifuatavyo. (alama 3)

(i) Idadi ya vipande katika kila mshororo

(ii) Mpangilio wa vina katika kila ubeti

(iii) Idadi ya mishororo katika kila ubeti

d) Andika ubeti wa nne katika lugha nathari. (alama 4)

e) Bainisha tamathali mbili za usemi zilizotumiwa katika shairi hili. (alama 2)

f) Huku ukitoa mifano, onyesha mbinu mbili alizotumia mshairi kutosheleza mahitaji ya kiarudhi.

(alama 2)

g) Andika aina mbili za urudiaji zilizotumiwa katika shairi hili. (alama 2)

h) Fafanua muundo wa ubeti wa tano. (alama 3)

3.

Soma shairi lifuatalo kisha ujibu maswali

Ee mpwa wangu,

Kwetu hakuna muoga,

Uoga ukikufikia, huenda ni wa akina mamayo,

Fahali tilichinja ili uwe mwanamume,

Eewe mpwa wangu, kisu kikali ajabu!

Iwapo utatingisa kichwa,

Uhamie kwa wasiotahiri.

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Wanaume wa mbari yetu,

Si waoga wa kisu,

Wao hukatwa kuanzia macheo hadi machweo,

Wewe ndiye wa kwanza,

Iwapo utashindwa,

Wasichana wote,

Watakucheka,

Ubaki msununu,

Simama jiwe liwe juu

Ndege zote ziangamie.

Simu nimeipokea,

Ngariba alilala jikoni,

Visu ametia makali,

Wewe ndiye wangojewa,

Hadharani utasimama,

Macho yote yawe kwako,

Iwapo haustahimili kisu,

Jiuzulu sasa mpwa wangu,

Hakika sasa mpwa wangu,

Hakika tutakusamehe, mwaka kesho unakuja.

Asubuhi ndio hiii,

Mama mtoto aamushwe,

Upweke ni uvundo,

Iwapo utatikisa kichwa.

Iwapo wewe ni mme,

Kabiliana na kisu kikali,

Hakika ni kikali!

Kweli ni kikali!

Wengi wasema ni kikali!

Fika huko uone ukali!

Mbuzi utapata,

Na hata shamba la mahindi,

Simama imara,

Usiende kwa wasiotahiri.

Maswali

a) Hili ni shairi la aina gani? Thibitisha (al. 2)

b) Tambua anayeimba na anayeimbiwa shairi hili (al. 2)

c) Toa ithibati kwenye shairi hili kuthibitisha kuwa msimulizi ana taasubi za kiume (al. 2)

d) Taja kwa kutolea mifano mbinu zozote nne za uandishi katika shairi hili (al. 4)

e) Taja shughuli zozote mbili za kiuchumi za jamii inayorejelewa katika shairi hili (al. 2)

f) Eleza mbinu alizotumia mshairi kutosheleza mahitaji ya kiuarudhi (al. 4)

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g) Msamiati ufuatao umetumika kwa maana gani katika shairi hili? (al. 4)

i) Mbari

ii) Msununu

iii) Ngariba

iv) Uvundo

SEHEMU C: TAMTHILIA; BEMBEA YA MAISHA – TIMOTHY M. AREGE

Jibu Swali la 4 au 5.

4. "Huku ndiko kuvumilia hasa. Tazama faraja ilivyoalika sasa"

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

b) Eleza sifa za msemaji katika dondoo. (alama 6)

c) Onyesha jinsi faraja ilivyoalika katika maisha ya msemewa kwa kurejelea tamthilia ya: Bembea ya Maisha. (alama 10)

AU

5.

(a) Changanua mtindo katika kifungu kifuatacho. (alama 10)

Maskini mke wangu! Kumbe ugonjwa haukumsaza mwaka baada ya mwaka. Umemla bila huruma. Awali niliona kama mchezo. Kumbe ilikuwa kweli! Kauli yake ninaona imesimama. Ni mwele hakika. Laiti ningejua, jana ningeishi tofauti. Silesi zetu za maisha tungezila zilivyokuja kwa furaha. (Kimya). Siku hazigandiwala jana

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hairudi. Sasa jana imebaki kuwa kumbukizi baada ya kusombwa na wakati mfano wa mafuriko msimu wa masika. (Kimya). Kwa bahati nzuri bado tupo. Ninaweza kuiachia dunia tabasamu iwe silesi kwa vizazi vijavyo na kila mwenye nia njema. (Kimya). Siwezi kuendelea kuishi hivi. Sasa nimekata shauri. Lazima niache njia ya zamani na kuifuata mpya. Maisha mapya. Pombe! (kama anayeisemea pombe). Umenichezesha kama mwanasesere kwa muda mrefu. Umeninyima fursa ya kuielewa familia yangu. Hapana! Siku zangu za uzeeni lazima nizitumie kumwangalia mke wangu mgonjwa. Lazima nimshukuru kwa vitendo kwa jinsi alivyojitolea kuijenga familia yetu. (anapunga mkono.) Kwaheri pombe. Buriani.

b) Bainisha toni ya dondoo hili. (alama 2)

c) Fafanua umuhimu wa msemaji wa maneno haya katika kuijenga tamthilia nzima.(alama 8)

SEHEMU D: HADITHI FUPI

Jibu swali la 6 au 7

6. Harubu ya maisha Paul Nganga Mutua

“Naja. Nakamilisha shughuli ndogo hapa kisha nianze safari…”

(a) Weka dondoo hili katika muktadha wake (al. 4)

(b) Eleza sifa sita za msemaji wa kauli hii (al. 6)

(c) Jadili changamoto wanazokumbana nazo waajiriwa kwa kurejelea hadithi hii (al. 10)

7. D.W .LUTOMIA : Msiba wa kujitakia

Wetu ni wetu ,hata akiwa mbaya …ni wetu.hatuna budi kuchagua yeye .lisilobudi hubidi.

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

(b)Fafanua vipengele vya kimtindo katika dondoo hii. (alama 4)

(c)Hiari ya maamuzi ya wahusika mbalimbali yamewaletea madhila anuwai.jadili.(alama 12)

SEHEMU YA E: RIWAYA- NGUU ZA JADI

8. Hivyo,alitaka kubadili hali hata kama ilimaanisha kukitia kichwa chake kinywani mwa samba. Alitaka kuliokoa jahazi lililokuwa likielekea mwambani kwa kasi. Lakini angeliweza vipi kupambana na utandu wa mahasisi hao?.

(a) Eleza mbinu nne za mimtindozinazojitokeza katika dondoo (al 4)

(b) Eleza sababu za msemaji kutaka kufaulisha kauli iloyopigiwa mstari (al 10)

(c) Eleza umuhimu wa msemaji katika kujenga ploti ya riwaya hii (al 6)

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NAME: ……..……

SCHOOL: ……

ADM NO: …… SIGN: …… DATE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

121/1

MATHEMATICS ALT A

2½ HRS

Instructions

(a) Write your name, class and admission number.

(b) Answer all the questions in section 1 and ONLY Five in section 11.

(c) Show all the calculations in the spaces provided

(d) KNEC mathematical tables and non-programmable calculators may be used.

For Examiners Use

Section 1

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

Section 11

17	18	19	20	21	22	23	24	Total

Grand total

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1. Evaluate without using a calculator. [3 Marks]

$$\frac{1\frac{1}{2}\times 4\frac{3}{5}-1\frac{3}{5}}{3\frac{1}{5}+7\frac{1}{2}\div 1\frac{1}{2}}$$

2. When a number is multiplied by 3 and two added to the product, the result is the same as subtracting one from the number then multiplying this by four. Find the number. [2 Marks]

3. Three similar steel bars of length 200cm, 300cm and 360cm are cut into equal pieces. Find the largest possible area of a square that can be made from any of the three pieces. [3 Marks]

4. A of 10 soldiers set off with enough food to last 7 days. After 4 soldiers deserted, how many more days will the food last the remaining soldiers? [3 Marks]

5. The scale of a map is given as 1:500000. Find the actual area in hectares of a region represented by square of sides 10cm. [3 Marks]

6. A watch loss 30 seconds every hour and was set to read the correct time at 0545h Monday. Determine the time in 12 hrs system the watch will show on Friday at 1945hrs. [3 Marks]

7. A two digit number is such that the sum of the digits is 12. If the digits are interchanged, the value of the new number formed is fifteen more than twice the value of the value of the original number. Find the original number. [4 Marks]

8. Express the following numbers as a product of its prime-factors in power form.
   a. 288 [2 Marks]

   b. 1980 [2 Marks]

9. I have a packet of sweets. When I try to share them equally among 2,3,4,5 and 6 children, I always have one left over. What is the minimum number of sweets that can be in the packet? [3 Marks]

10. Otieno miscopied 98 as 89. He multiplied 89 by a certain number and got 4005. Find that number and the correct product.[2 Marks]

11. Evaluate [3 Marks]

$$\sqrt{11\frac{1}{9}} \times \sqrt{2\frac{14}{25}}$$

12. Use elimination method to solve the simultaneous equation. [3 Marks]

$$x - 2y = 27$$
$$7x + y = 9$$

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13. Simply the following expressions. [4 Marks]

a. $\sqrt{9x^2y^4}$

b. $\sqrt{645^2t^{10}}$

c. $\sqrt[3]{64y^6Z^{18}}$

d. $\sqrt[3]{275^{\frac{1}{9}}T^{\frac{8}{27}}}$

14. A rectangle measures 20cm by 15cm. if each dimension is increased by 2cm, find the percentage increase in area. [3 Marks]

15. Given that $x = y, y = 3 \; and \; z = \frac{2x}{3y}$, evaluate the value of $\frac{x+y}{2z+3x}$ [3 Marks]

16. A wooden block measuring 20cm by 30cm by 50cm has mass of 22.5kgs. find the density of the wood in g/cm^3. [3 Marks]

SECTION B

Answer any 5 Questions

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17. The boundaries PQ, QR,RS and SP of a piece of land are straight lines such that Q is 16km on a bearing of 40^0 from P, R is directly south of Q and east of P and S is 12km on a bearing of 120^0 from R.

a. Using a scale of 1:400000, represent the above information on a scale drawing.[4 Marks]

b. Calculate

i. The distance from P to S. [1 Mark]

ii. The distance of Q from S [1 Mark]

iii. The bearing of S from Q [1 Mark]

c. The area of the piece of land PQRS in hectares. [3 Marks]

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18. The table below shows the values of x and y of two equations.

$$2x + 3y = 17 \; 4x - y = 13$$

x	1	2	3	4	5	6
y	5	-	-	3	-	-

x	1	2	3	4	5	6
y	-	-	4	-	-	-

a. Calculate the tables [2 Marks]

b. (i) Using the graph paper provided and using a suitable scale, plot the coordinates of the two
equations. [4 Marks]

(ii)Hence or otherwise solve the simultaneous equations. [2 Marks]

c. Use the values in b(ii) above to evaluate; [2 Marks]

$$\frac{x^2 + y^2}{2xy}$$

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19.

a. Construct a triangle XYZ such that XY=7.5cm. <ZXY = 63^0 and < ZYX= 58^0.[3 Marks]

b. Measure line XZ [1 Mark]

c. Drop a perpendicular from Z to touch line XY at K. Measure ZK [3 Marks]

d. calculate the area of ΔXYZ [3 Marks]

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20. the following measurements were gotten from a surveyors field book

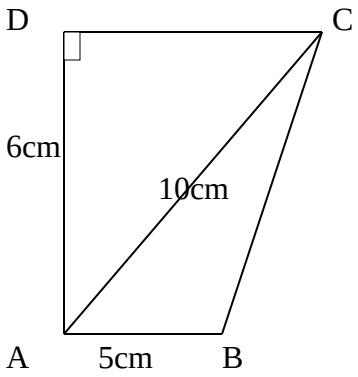
		Z		
		400		
TO E	200	300	TO F	120
		200		
		150	TO D	100
		100		
TO C	180	60	TO B	50
		40		
		A		

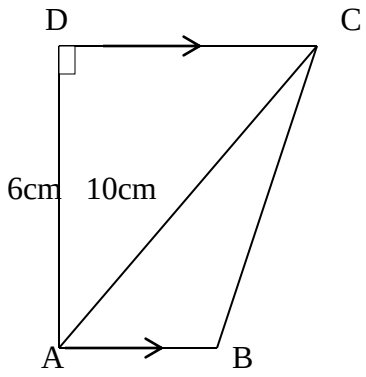
a. By using an appropriate scale, draw the accurate figure on the space provided. (Measurement in Metres). [5 Marks]

b. Calculate the total area of the piece of land in hectares. [5 Marks]

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21. a. Use the figure below to answer the questions that follow.





Find:

i. The area of triangle ABC [2 Marks]

ii. The length of the perpendicular from B to AC [2 Marks]

b. PQRS is a trapezium with area 88.2cm^2. PQ is parallel to RS. If PQ=9.4cm and the distance between PQ and RS is 6.3cm. Find the length of RS.[3 Marks]

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c. The diagonals of a rhombus measure 16cm by 12cm. Calculate the area of the rhombus. [3 Marks]

22. A supermarket bought 600 trays of eggs at shs. 120. Each tray contains 30 eggs. The eggs were repacked into smaller trays each holding 6 eggs. During the repacking 10% of the eggs were found either bad or broken and could not be sold. The small trays were sold at shs. 30 each.
    a. How much did one egg cost in the supermarket. [2 Marks]

    b. How much was received from the sale of the eggs. [2 Marks]

    c. How much money was lost due to breakage or bad eggs? [2 Marks]

d. How much profit was realized? [2 Marks]

e. Calculate the percentage profit [2 Marks]

23. There are 8 lessons of 40 minutes each in Gatwe Secondary school. Students are supposed to report 1 hour before assembly in the morning. The school assembly takes 15 minutes. There is a 20 minutes break after the first 3 lessons and lunch break is 1hr 10minutes after the next 3 lessons. Games start 10 minutes after the last lesson and go on for 2 hours. Students go home at 5.30pm
    a. How much time are the students supposed to spend in school.[2 Marks]

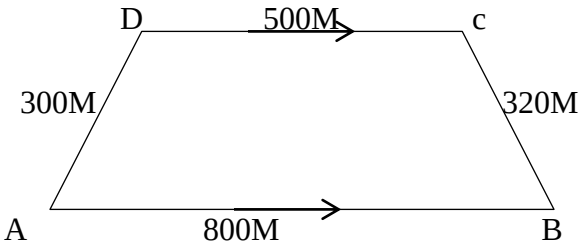
    b. At what time are the students supposed to report at school[2 Marks]

c. When does the first lesson begin. [2 Marks]

d. At what time do the students go for lunch. [2 Marks]

e. When does the last lesson end. [2 Marks]

24. a. A form is in the shape of trapezium ABCD.



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AB is parallel to DC, AB=800m, BC=400 CD = 500m DA=300m and <DAB = 60^0

i. using a suitable scale, draw the plan of the farm [3 Marks]

ii. Find the area of the farm in hectares. [3 Marks]

b. The scale of a map is 1:250000. Calculate the area in m^2 OF A GAME PARK ON A map whose actual area is $25km^2$[4 Marks]

NAME: ……..……..……

SCHOOL: ……

ADM NO: …… SIGN: …… DATE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

121/2

MATHEMATICS ALT A

PAPER 2 2½ HRS

Instructions

(a) Write your name, class and admission number.

(b) Answer all the questions in section A and ONLY Five in section B.

(c) Show all the calculations in the spaces provided

(d) KNEC mathematical tables and non-programmable calculators may be used.

For Examiners Use

Section 1

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

Section 11

17	18	19	20	21	22	23	24	total

Grand total

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SECTION A

1. Use logarithm tables to evaluate; [4 Marks]

$$\sqrt[3]{\frac{146.34^2 \times 0.0063}{\cos 54}}$$

2. A number n is such that when it is divided by 3,7,11 or 13, the remainder is always 1. Find the number. [2 Marks]

3. A square has an area of 144m^2. Calculate its perimeter. [2 Marks]

4. Factorise$2x^2 - x - 6$ hence solve the quadratic equation
   $2x^2 - x - 6 = 0$ [3 Marks]

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5. List all integral values of x that satisfy the combined inequality; Represent the solutions on a single number line. [4 Marks]

6. A body accelerates at $5m/s^2$ to reach a velocity of 60m/s in 5 seconds. Calculate the initial velocity. [2 Marks]

7. Draw a triangle STR and put arrows on its side to show that $\overrightarrow{TS} + \overrightarrow{SR} = \overrightarrow{TR}$ [2 Marks]

8. A point P(2,5) is translated to P'(1,6)
   a) Find the translation vector [2 Marks]

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b) The image of $X(3,0)$ under the same translation. [2 Marks]

9. Solve for x in [3 Marks]

$$9^x + 3^{2x} = 54$$

10. The sum of interior angles of a regular polygon is 3240^0. Find the size of each exterior angle. [3 Marks]

11. Write 1936 and 1728 in terms of its prime factors hence evaluate;

$$\frac{\sqrt[3]{1728}}{\sqrt{1936}}$$

12. Use reciprocal tables to evaluate; [4 Marks]

$$\frac{16}{2.674} + \frac{24}{0.1396}$$

13. Evaluate; [3 Marks]

$$\frac{\frac{1}{2}of\ 3\frac{1}{2}+1\frac{1}{2}(2\frac{1}{2}-\frac{2}{3})}{\frac{3}{4}of\ 2\frac{1}{2}\div\frac{1}{2}}$$

14. Use substitution method to solve; (3 Marks)

$$2x + 3y = 1$$
$$3x - 2y = 8$$

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15. The straight line joining the points P(a,7) and Q(13,a) is parallel to the line whose equation is $3y + 2x = 9$. Find the value of a. [3 Marks]

16. The ratio of the areas of two circles is 16:25
    a) What is the ratio of their radii. [2 Marks]

    b) If the smaller circle has a diameter of 28cm, find the radius of the larger circle. [2 Marks]

SECTION B

Answer any 5 Questions

17. The marks of 30 girls in a class were recorded as follows.

220	250	204	230	210	227	221	252
200	228	208	225	200	202	240	228
212	225	252	216	212	226	227	
240	248	203	201	251	242	216	

a) Construct a frequency table with a class width of 5 Marks beginning with 199 marks. [3 Marks]

b) What is the modal class? [1 Mark]

c) Estimate the mean [3 Marks]

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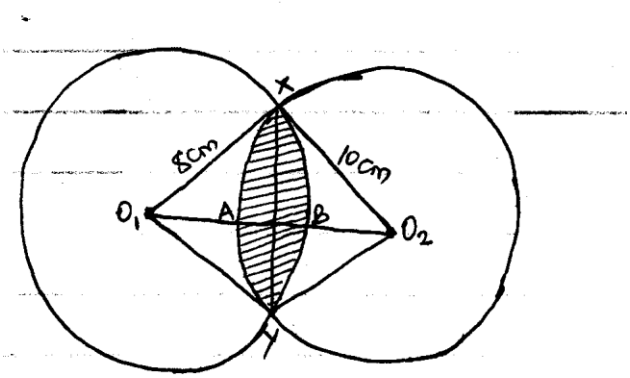
d) Estimate the median [3 Marks]

18. The initial velocity of a body is 30m/s. the body accelerates uniformly to a velocity of 60m/s in 6 seconds. It moves at this constant velocity for 5 seconds before decelerating in 3 seconds.
    a) Using the graph paper provided, draw a velocity time graph to illustrate the information above. [4 Marks]

    b) Calculate the initial acceleration [2 Marks]

c) Calculate the total distance covered. [4 Marks]

19. The diagram below shows two circles that share a common chord XY which is 13cm long. Calculate;



a) $<XO_1Y$ [1 Mark]

b) $< XO_2Y$[1 Mark]

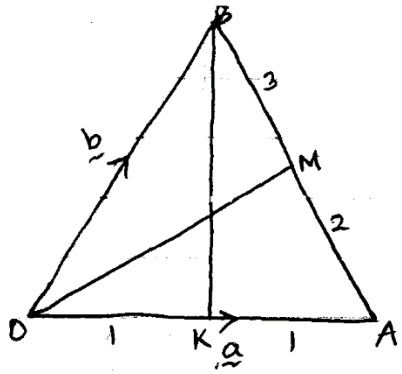
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c) The area of the sector O_1XBY [2 Marks]

d) The area of the sector O_2YAX [2 Marks]

e) The area of the shaded part [4 Marks]

20. a. The diagram below shows a triangle OAB



Points M and K are on AB and OA respectively such that;
AM:MB=2:3 and K is the mid point of OA.
Express the following vectors interms of a and b.

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i. $\overrightarrow{AB}$ [1 Mark]

ii. $\overrightarrow{OM}$ [2 Marks]

iii. $\overrightarrow{BK}$ [2 Marks]

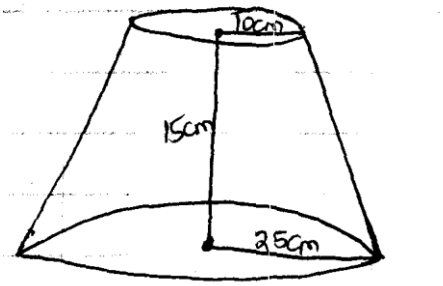
b. The co-ordinates of P and Q are (6,10) and (8,14) respectively. Calculate;

i. $\overrightarrow{PQ}$ [1 Mark]

ii. The mid-point of line PQ [2 Marks]

c. Given that $a = \begin{pmatrix}3\\4\end{pmatrix} b \begin{pmatrix}2\\1\end{pmatrix} and\ c = \begin{pmatrix}3\\-4\end{pmatrix}$. Another vector P is such that $p = 2a - b + 4c$. Evaluate $|p|$correct to 2 decimal places. [2 Marks]

21. The diagram below shows a frustrum that was cut from a right cone.



Calculate;

i. The highest of the cone [2 Marks]

ii. The volume of the frustrum [4 Marks]

iii. The surface area of the frustrum [4 Marks]

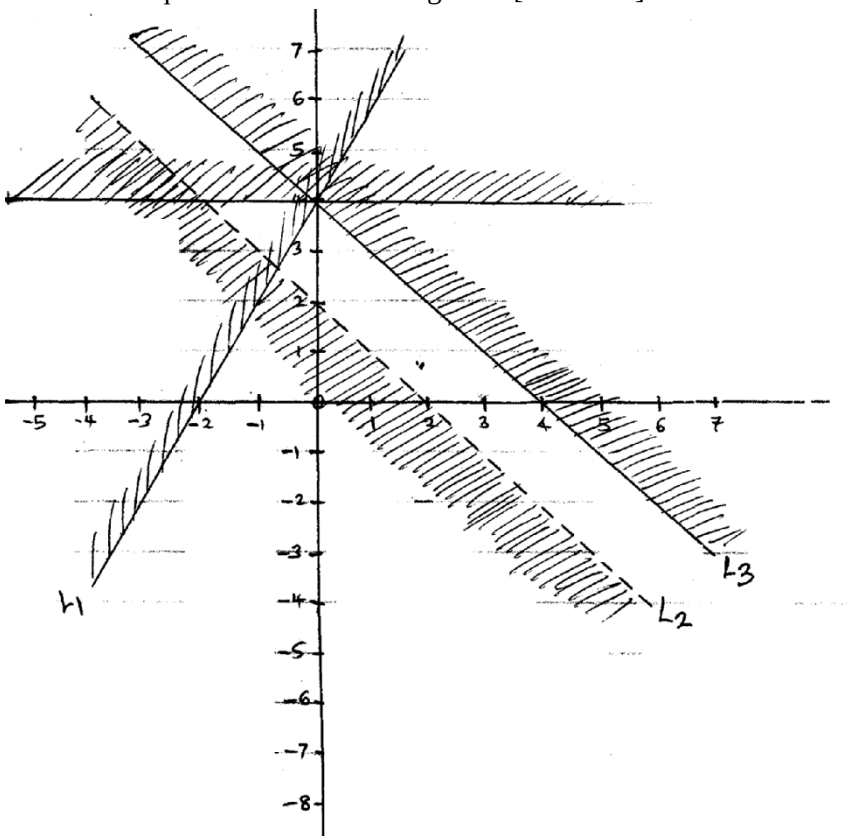
22. A line L_1 has the equation $3x + 4y = 12$
    a. Calculate
        i. The gradient of line L_1[2 Marks]

        ii. The coordinates of P and Q where the line cuts the x-axis and y-axis respectively [4 Marks]

        iii. Another line L_2 is perpendicular to L_1 and passes through (-4,5). Determine the equation of line L_2 in the form $y = mx + c$ [4 Marks]

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23. Form all inequalities that define Region R [10 Marks]



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24. a. Two trains T1 and T2 travelling in opposite directions on parallel trucks are just beginning to pass
each other. Train T1 is 72m long and is travelling at 108km/hr and T2 is 78m long travelling at 72km/hr. Find the time in seconds it takes the two trains take to completely pass one another. [3 Marks]

b. A rally car travelled for 2 hours 40 minutes at an average speed of 120km/hr. the car consumes an average of 1 litre of fuel for every 4 kilometres.
A litre of fuel costs sh. 64. Calculate the amount of money spent on the fuel. [4 Marks]

c. Mwangi and Otieno live 40km apart. Mwangi starts from his home at 7.30am and travels towards Otieno at 16km/hr. Otieno starts from his home at 8.00am and cycles at 8km/hr towards mwangi. At what time do they meet? [3 Marks]

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NAME: ……..……..……

SCHOOL: ……

ADM NO: …… SIGN: …… DATE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

232/1
PHYSICS
PAPER 1
TIME: 2 HRS

INSTRUCTION TO CANDIDATES:

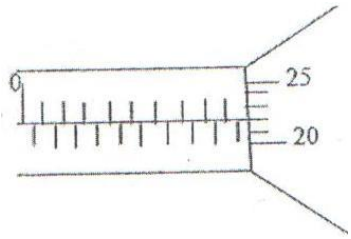
1. Write your name and Admission number in the spaces provided.
2. Answer all the questions in the spaces provided.
3. Mathematical tables and electronic calculators may be used.
4. All workings must be clearly shown where necessary.

FOR EXAMINERS USE ONLY:

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A	1 – 13	25	
B			
TOTAL			

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1. The micrometer screw gauge represented by figure 1 below has a thimble scale of 50 divisions. What is the reading shown? (1 mk)

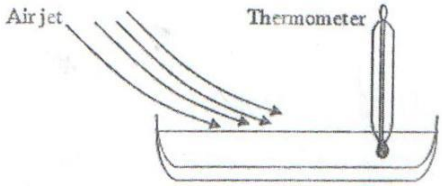


2. Figure 2 shows a uniform bar of length 1.0m pivoted near one end. The bar is kept in equilibrium by a spring balance.



Given that the reading of the spring balance 0.6N, determine the reaction on the pivot. (3 mks)

3. Figure 3 shows a shallow dish containing a volatile liquid. The bulb of a thermometer is held inside the liquid. A jet of air is blown over the surface of the liquid, so that the liquid evaporates rapidly



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State and explain what happens to the reading shown on the thermometer. (3 mks)

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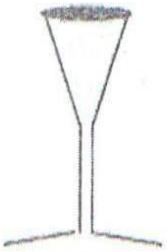
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4. Figure 4(a) shows a glass ornament standing on a shelf. Figure 4(b) shows an identical ornament filled with colored glass beads.



4(a)



4(b)

State which ornament is more stable and why. (2 mks)

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5. 100g of water of density $1g/cm^3$ is mixed with 60g of a liquid of relative density 1.2. Assuming no change in volume, find the density of the mixture. (2 mks)

6. An object of mass 'm' has a weight 'w_1' in air and 'w_2' in water. Suggest a reason why w_1 is greater than w_2. (1 mk)

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7. State the significance of the closeness of streamlines in fluids. (1 mk)

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8. A thin metal disc has a hole passing through its center. What would happen to the size of the hole if the disc were heated? (1 mk)

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9. State two factors, which can cause the temperature at which water boils to rise. (2 mks)

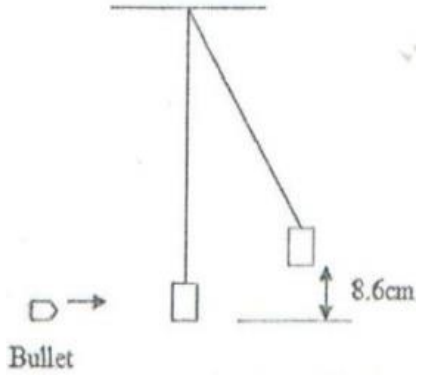
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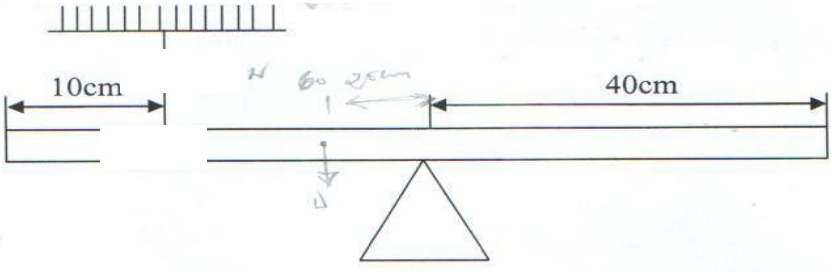
10. A bullet of mass 2.0g is fired horizontally into a block of wood of mass 600g. The block is suspended from strings so that it is free to move in a vertical plane. The bullet and the block rise together through a vertical distance of 8.6cm as shown in figure 5.



Determine the speed of the bullet before the impact with the block. (3 mks)

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11. The figure below shows a uniform plank of wood of length 1.2m pivoted near one end. The plank is kept in equilibrium by a string as shown S.



Given that the tension T in the string is 0.8N, determine the reaction force at the pivot. (3 mks)

12. Give a reason why heat transfer by radiation is faster than heat transfer by conduction. (1 mk)

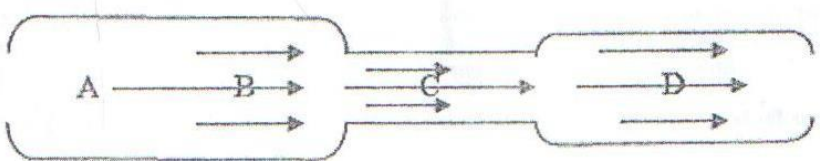
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13. In the diagram in figure 6, water flows through a section of a pipe whose diameter changes.

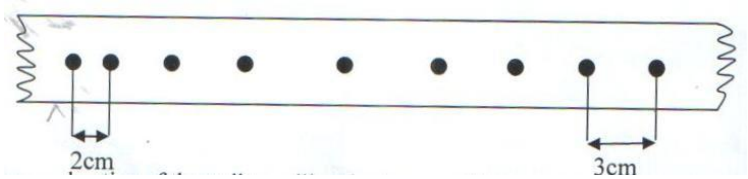


Sketch a graph of the variation of pressure along the line ABCD. (2 mks)

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SECTION B:

14. (a) The figure below shows a section of a ticker tape. The dots were made at a frequency of 50Hz.



Determine the acceleration of the trolley pulling the tape. (3 mks

(b) A body starts from rest and accelerates at 2 m/s^2 for a time of 5 seconds, calculate:

(i) Its final velocity. (2 mks)

(ii) The distance travelled. (2 mks)

(c) State Newton's 2nd Law of motion. (1 mk)

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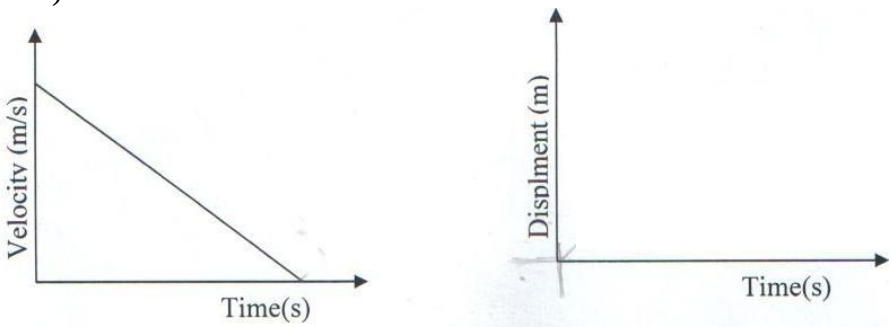
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(d) A hammer of mass 2 kg strikes a nail with a velocity of 9m/s and is stopped by the force of reaction in 0.025s. find the force of the acting on the nail. (2 mks)

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(e) A body is released from a height, h. if the acceleration due to gravity is g, derive an expression of the velocity of the stone just before hitting the ground. (3 mks)

(f) The figure below shows a velocity – time graph of a body in motion – sketch on space provided a displacement – time graph of the motion.
(2 mks)



15. A burette is filled with oleic acid drop upto the $15.5cm^3$ ark. After 50 drops of the oil were let out of the burette the level of the oil dropped to $22.5cm^3$.
    a) Determine the volume of one drop of the oleic oil. (3 mks)

    b) One drop of the oleic oil is carefully introduced onto a clean surface of a trough. It spread to a patch. Determine the thickness of each oleic oil molecules in metres. (Assuming the radius of drop = radius of patch). (5 mks)

c) State two assumptions made in part (b) above. (2 mks)

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16. The table below shows the values of extensions of a spiral spring when various forces are applied to it.

Force F, (N)	0	1.2	2.0	3.0	4.0	5.0	6.0
Extension R, (cm)	0	0.8	1.5	2.3	3.1	3.8	4.6

(i) On the grid provided, plot a graph against the extension. (5 mks)

(PROVIDE A GRAPH PAPER)

(ii) From the graph, determine the work done in stretching the spring by 4cm. (3 mks)

17. Differentiate between mechanical advantage and velocity ratio. (2 mks)

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a) An effort of 125N is used to lift a load of 500N through a vertical height of 2.5 m using a pulley system. If the distance moved by the effort is 1.5 m, calculate the;
   (i) Work done on the load. (2 mks)

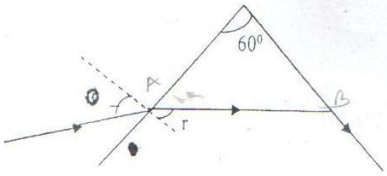
(ii) Work done by the effort. (2 mks)

(iii)Efficiency of the system. (2 mks)

b) Draw a well labeled diagram of the pulley used in (b) above. (3 mks)

c) Suggest one method of improving the efficiency of the system. (1 mk)

18. The figure below shows path of ray of yellow light through a glass prism. The speed of yellow light in the prism is 1.88×10^8m/s.



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a) Determine the refractive index of the prism material for the light (speed of light in vacuum=3.0 x 10^8m/s). (3 mks)

b) (i) Show on the diagram the critical angle. (1 mk)

c) Given that r=21.20, determine angle Θ. (3 mks)

d) On the same diagram sketch the path of the light after striking the prism if the prism was replaced by another of similar shape but lower refractive index (use dotted line for your answer). (2 mks)

e) State 2 conditions that must be satisfied at B for total internal reflection to occur. (2 mks)

NAME: ……..……..……

SCHOOL: ……

ADM NO: …… SIGN: …… DATE: ……..

BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

232/2
PHYSICS
Paper 2
(THEORY)
MARCH/APRIL
Time: 2 Hours

Kenya Certificate of Secondary Education (K.C.S.E)

PHYSICS
Paper 2
Time: 2 Hours

INSTRUCTIONS TO CANDIDATES:-

- *Write your **name**, **index number** and **class** in the spaces provided above.*
- *This paper consists of **two** sections; **A** and **B***
- *Answer **all** the questions in section **A** and **B** in the spaces provided*
- *All working **must** be clearly shown.*
- *Mathematical tables and electronic calculators may be used*
- *This paper consists of 11 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.*
- *Candidates should answer the questions in English.*

For Examiner's Use Only:

Section	Question	Maximum Score	Candidate's Score
A	1 – 15	25	
B	16	15	
	17	13	
	18	15	
	19	12	
Total Score		80	

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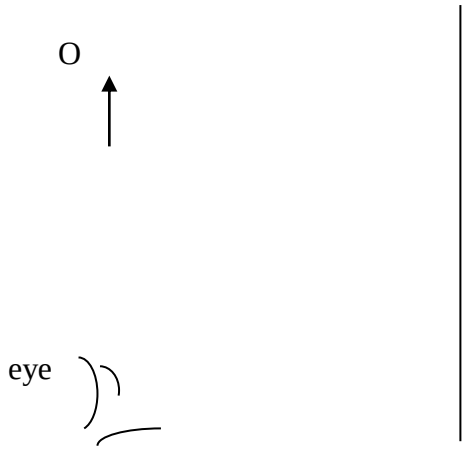
SECTION A (25 MARKS)

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

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2. The figure below shows an object O placed in front of a plane mirror.



On the same diagram, sketch rays to show the position of the image as seen by the eye. (2 mks)

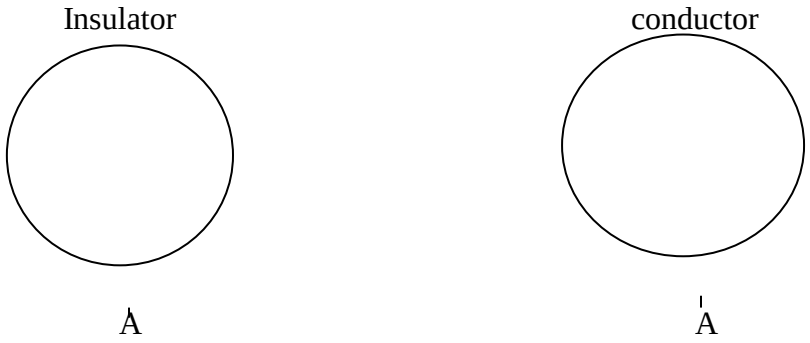
3. State two uses of a charged gold leaf electroscope. (2 mks)

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4. The figure below shows two spherical materials, one an insulator and the other a conductor. Negative charges are introduced at point A in each case.



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5. State two advantages of an alkaline battery over a lead acid battery. (2 mks)

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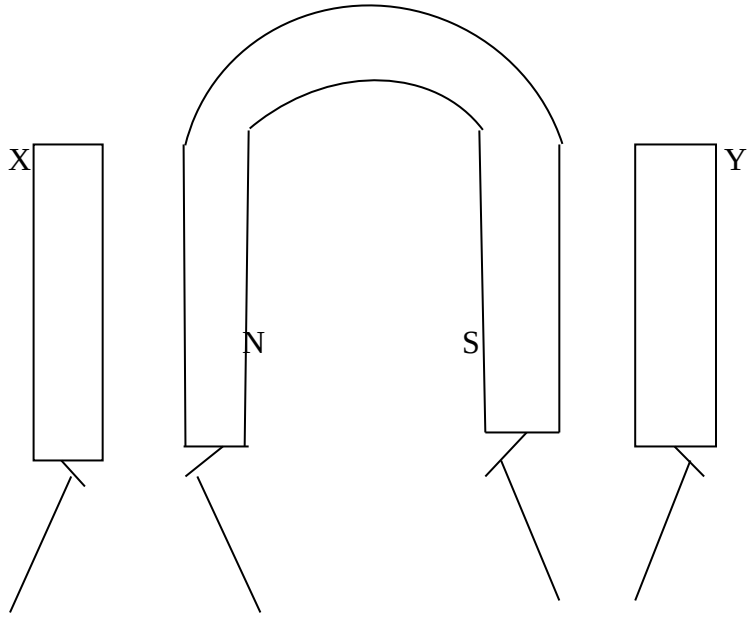
6. State the purpose of manganese IV oxide in a dry battery. (1 mk)

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7. The figure shows a U- shaped magnet whose poles are labelled and two magets near it. Iron nails are attracted to the lower ends of the magnets as shown.



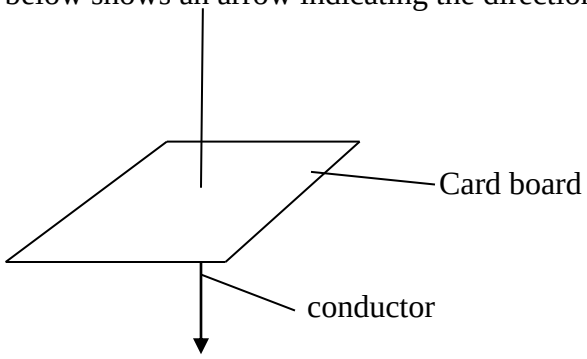
Identify the poles marked X and Y (2 mks)

X ……

Y ……..

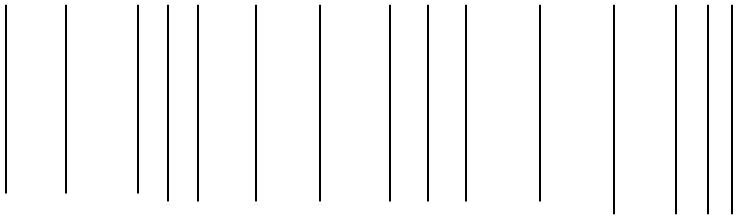
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8. The figure below shows an arrow indicating the direction of a current in conductor.



Sketch on the diagram the magnetic field pattern due to the current. (2 mks)

9. The figure below shows a longitudinal wave.



On the same diagram, indicate the wavelength of the wave. (1 mk)

10. State two factors that affect the speed of sound in air. (2 mks)

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11. An observer watching a fireworks display sees the light from an explosion and he hears the sound 2 seconds later. If the speed of sound in air is 330m/s, how far is the explosion from the observer? (2 mks)

12. A wave with a periodic time of 0.2 seconds is travelling at a speed of $50cms^{-1}$. What is the wavelength of the wave? (3 mks)

13. State one advantage and one disadvantage of a convex mirror when used as a driving mirror. (2 mks)
    Advantage:

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    Disadvantage:

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14. A girl holds a large concave mirror of focal length 1m, at a distance of 80 cm from her face. State two characteristics of her image in the mirror. (2 mks)

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15. State one application of a parabolic mirror. (1 mk)

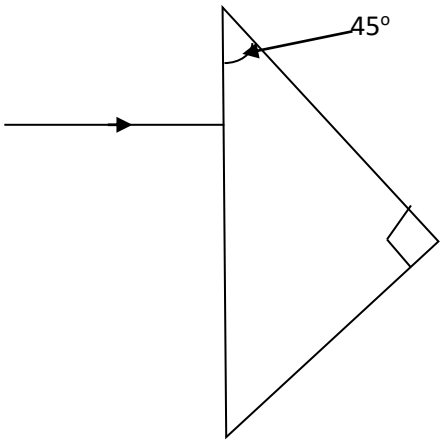
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<u>SECTION B</u> (55MARKS)

16. a) The diagram below shows a ray of light incident on a glass prism. If the critical angle of the glass is 42^o, draw the path of the ray through the prism (2mks)



b) State two conditions necessary for total internal reflection to occur. (2mks)

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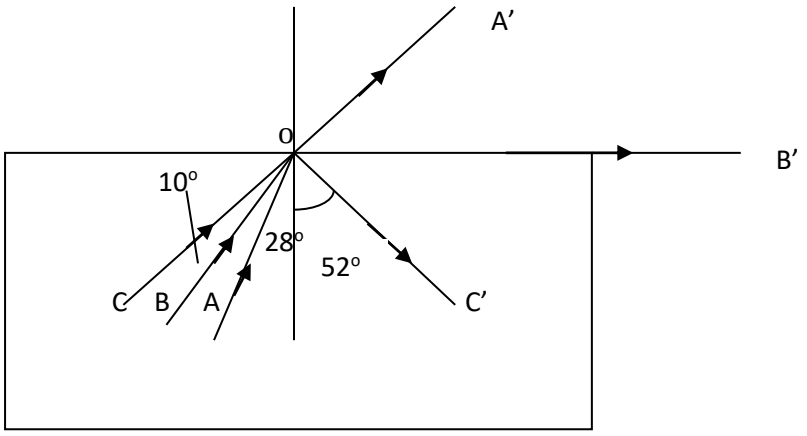
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c) The figure below shows rays of light AO, BO and CO incident on a glass air interface. OA', OB' and OC' are the corresponding emergent rays. Study the diagram and answer the questions that follow.



Determine:

i) The critical angle of the glass. (1mk)

ii) The refractive index of the glass. (3mks)

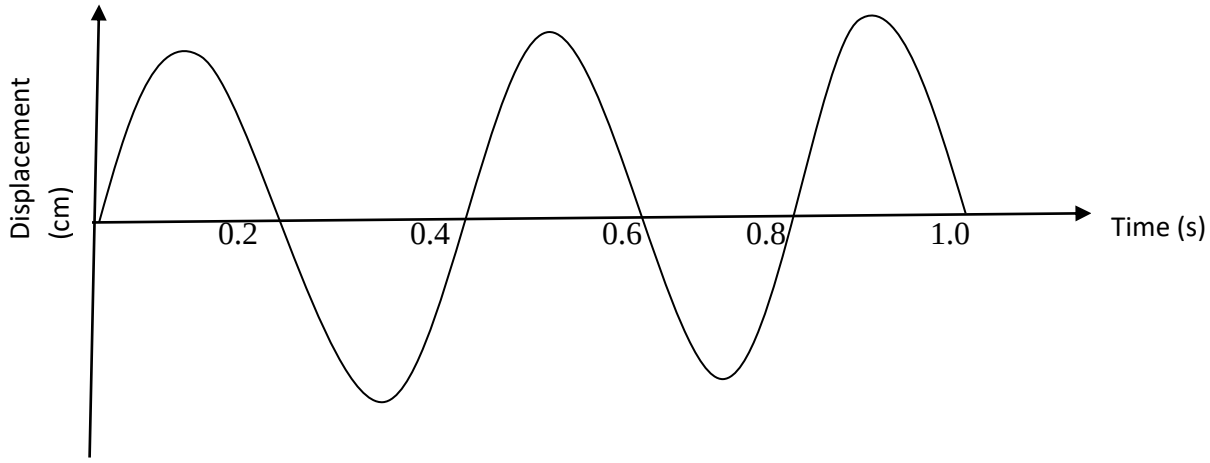
d) If the speed of light in air is $3.0x10^{8}ms^{-1}$, determine the speed of light in water o refractive index 1.33. (3mks)

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e) A pin is placed at the bottom of a beaker of depth 11.5cm. The beaker is then filled with paraffin. By using another pin on the side of the beaker and observing from the top, the distance of the image of the pin in the beaker is found to be 3.5cm from the bottom. Determine the refractive index of paraffin. (4mks)

17. a) Distinguish between longitudinal and transverse waves. (2mks)

b) The figure below shows a displacement-time graph for a progressive wave travelling at $200cms^{-1}$



Determine:

i) The periodic time. (1mk)

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ii) The frequency of the wave. (2mks)

iii) The wavelength of the wave. (3mks)

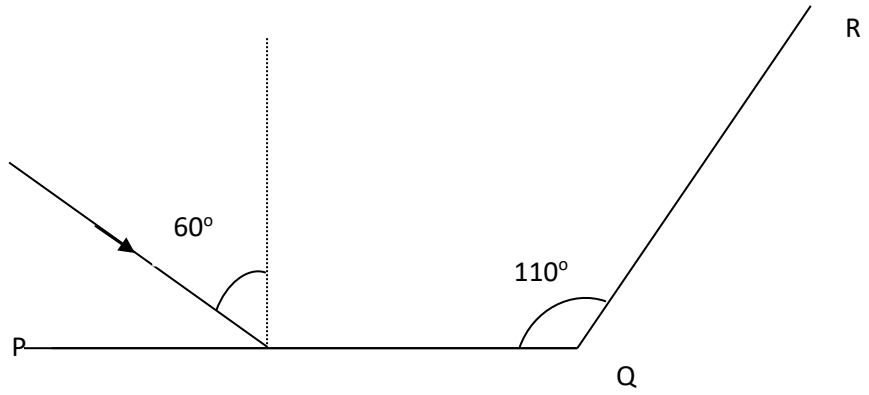
c) Two vertical cliffs are x distance apart. A mine-worker stands between the two vertical cliffs, 400m from the nearest cliff. Every time he strikes the rock once, he hears two echoes; the first one after 2.5 seconds, while the second follows 2 seconds later. From this information, calculate:

i) The speed of sound in the mine. (2mks)

ii) The value of x. (3mks)

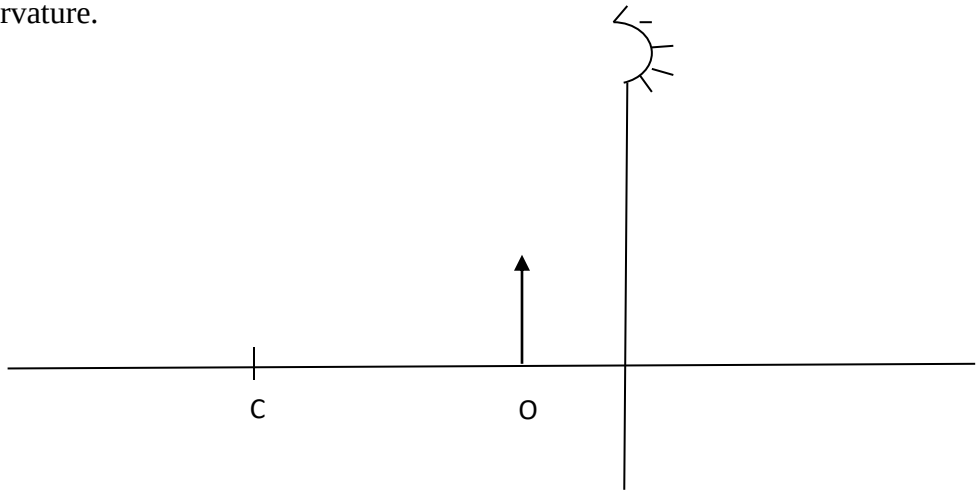
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18. a) The figure below shows two mirrors PQ and PR inclined at an angle of 110°. A ray of light is incident on mirror PQ at an angle of 60°.
Complete the ray diagram to determine the angle of reflection of the ray in the mirror QR. Indicate the angles at each reflection . (3mks)



b) Two plane mirrors are inclined at an angle P and forms 5 images. Determine angle P. (3mks)

c) An object is placed in front of a concave mirror as shown below. C is the centre of curvature.



i) On the same diagram, use rays to locate the position of the image. (3mks)

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ii) Determine the magnification of the image. (3mks)

d) A building standing 200m from a pinhole camera produces on the screen of the camera an image 2.5cm high, 5.0cm behind the pinhole. Determine the actual height of the building . (3mks)

19. a) A current of 0.5A flows in a circuit. Determine the quantity of charge that crosses a point in 4 minutes . (3mks)

b) i) What is polarization in a simple cell? (1mk)

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ii) How to the defect in b(i) above minimized? (1mk)

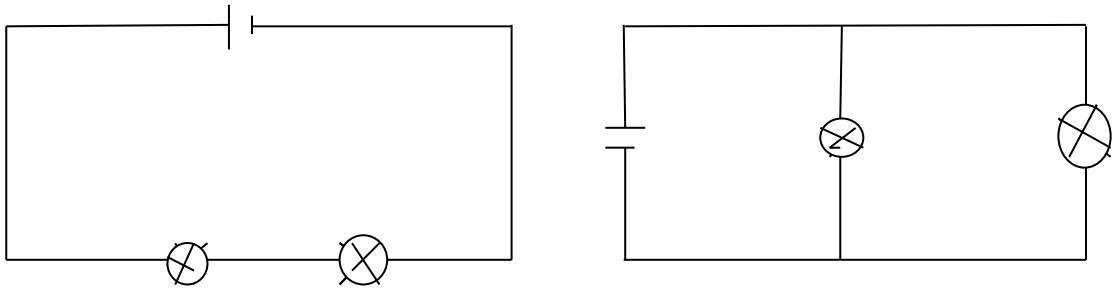
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c) In the circuit diagrams shown below, the cells and bulbs are identical



Explain with a reason which of the bulbs in circuit (a) or (b) is brighter. (2mks)

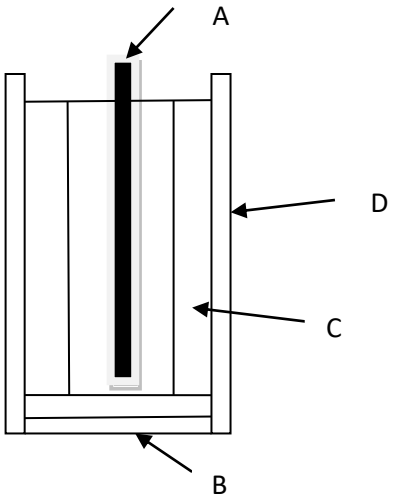
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d) The figure below shows the features of a dry leclanche cell.



i) State the polarities of the parts labelled A and B . (2mks)

A ……..…….

B ……..…….

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ii) Name the chemical substances in parts labelled Cand D. (2mks)

C ……..……

D ……..……..

e) State a reason why the caps of the cells of a lead-acid battery are opened when charging the battery. (1mk)

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BRILLIANT STUDENTS

FORM 3 END TERM 1 SERIES 1 EXAMS

232/3 PHYSICS PRACTICAL PAPER 3

TIME: 2 ¼ HOURS

INSTRUCTIONS TO CANDIDATES

- Write your name and index number in the spaces provided above.
- Answer all questions in the spaces provided in the question paper.
- You are supposed to spend the first 15minutes of the 2 ¼ hours allowed for the paper reading the whole paper carefully.
- Marks are awarded for clear record of the observations actually made, their suitability and accuracy.
- Candidates are advised to record their observations as soon as are made.
- Mathematical tables and calculators may be used.

	QUESTION 1	QUESTION 2	TOTAL
SCORES			
OUT OF	20	20	40

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QUESTION 1

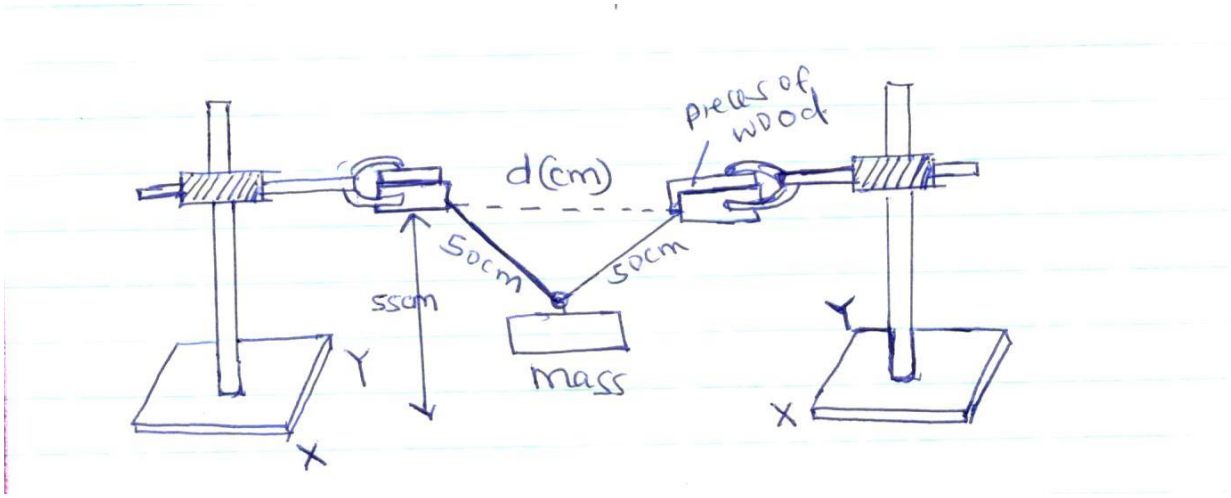
You are provided with the following apparatus

- A metre rule
- A cotton or a silk thread
- A stop watch or stop clock
- A 50g mass
- Four pieces of wood

Proceed as follows:

a)Measure accurately 1 metre of thread and cut it leaving an allowance of 50cm on either end. Mark the centre of the thread

b)Clamp the thread between two retort stands and suspend a 50g mass at the same level 55cm above the bench, as shown below.



c)By moving one end of the retort stands, adjust **d** to value of 40cm.

d)pull the mass slightly in a direction parallel to **xy** then release it to oscillate. Record the time **t**,for 20 oscillations.

e)Repeat the procedure (c) and (d) with other values of **d**, increasing at intervals of 5cm and complete the table below. Where **T** is the periodic time.

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d(cm)	40	45	50	55	60	65	70	75	85
t(s)									
T(s)									
$T^2(s^2)$									
$d^2(cm^2)$									

(7mrks)

f)plot a graph of T^2 against d^2 (5mrks)

(PROVIDE A GRAPH PAPER)

g)Determine the slope of your graph.(3mrks)

h)Given that $T^2 = \frac{3d^2}{m} + C$ using your graph determine the values.

I. M (3mrks)

II. C (2mrks)

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QUESTION TWO

PART A

You are provided with the following :

- Vernier calipers
- Micrometer screw gauge
- Masses;two 10g,20g,50g and 100g
- A helical spring
- Metre rule or half metre rule

Proceed as follows

a) Determine the number of complete turns of the helical spring.

N=…….(1mrk)

b) Measure the external diameter of the spring using the vernier calipers

D=……m (1mrk)

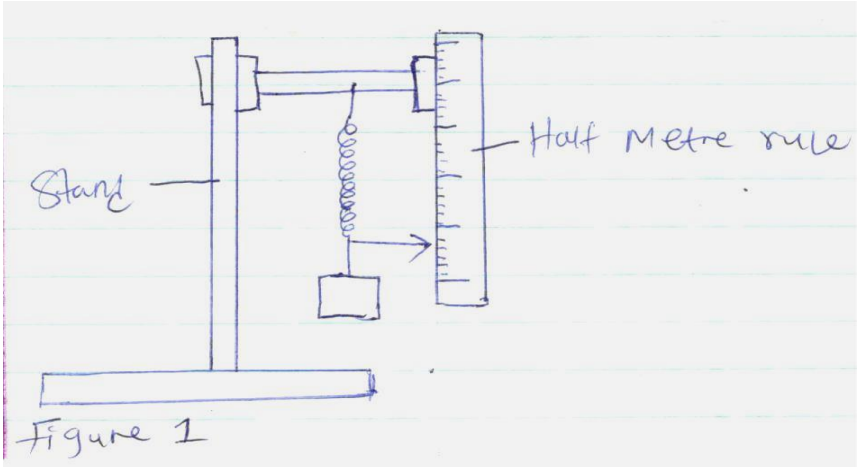
c) Use the micrometer screw gauge to determine the diameter of the wire of the spring.

D=……m (1mrk

d) Determine the value of M. $N = \frac{0.4D}{dM}$ (2mrk)

e)Suspend the helical spring vertically alongside the clamped half metre rule as shown in figure 1below.Determine the length L_o,of the spring before loading it.

L_o=……cm



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f)load the spring with a mass of 20g and determine the new reading on the metre.(L) record this in the table below. Calculate the extension $e=L-L_o$ due to the mass of 20g and record the value in the table given below. Repeat step f for other masses and complete the table.

Mass(g)	0	10	20	30	40	50	60	70	80	90	100
Weight(N)											
Reading(L)cm											
Extension e(cm)											
Ye (cm^{-1})											

g)Plot a graph of weight (N) against 1/e (cm^{-1}) (5mrks)

h)Determine the slope (s) of the graph at a mass of 45g (3mrks)

i)Given that $M = \frac{-255T}{(S+60)^2}$

Determine the value of T where S is the slope at 45g (3mrks)

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