DILIGENT STUDENTS FORM 2 END TERM 1 SERIES 1 EXAMS *(ALL SUBJECTS TESTED)*



DILIGENT STUDENTS FORM TWO END TERM ONE SERIES ONE EXAMS

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ORDER OF THE 14 SUBJECTS TESTED *(ALPHABETICALLY ARRANGED)*

1. **AGRICULTURE**
2. **BIOLOGY**
3. **BUSINESS STUDIES**
4. **CHEMISTRY**
5. **COMPUTER**
6. **C.R.E**
7. **ENGLISH**
8. **GEOGRAPHY**
9. **HISTORY**
10. **HOMESCIENCE**
11. **I.R.E**
12. **KISWAHILI**
13. **MATHS**
14. **PHYSCIS**

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DILIGENT STUDENTS FORM 2 END TERM 1 SERIES 1 EXAMS

NAME: ……..

SCHOOL: ……..

DATE:…….. ADM NO: …… SIGNATURE:……

FORM TWO

AGRICULTURE

TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATE

1. Write your name and admission number in the spaces provided above.

2. Sign and write date of examination in spaces provided.

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

4. Answer **ALL** questions in section **A,B** and **C.**

5. Candidate must answer the questions in English.

6. All answers should be written in spaces provided.

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATE SCORE
A	1-17	40	
B	18-22	20	
C	23-26	40	
TOTAL		100	

SECTION A [40 MARKS]

1. Name **four** beneficial biotic factors in Agricultural production. **(2mks)**

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2. State **four** aspects of rainfall and describe their effect on agricultural activities **(2mks)**

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3. List **four** methods of fertilizer application **(2mks)**

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4. State and describe **three** tertiary operations **(3mks)**

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5. State **four** advantages of drip irrigation **(2mks)**

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6. State **four** characteristics of plants used as green manure **(2mks)**

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7. Differentiate the following terms as used in crop production

i) Thinning and pricking out **(2mks)**

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ii) Nursery bed and seedling bed **(2mks)**

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8. List **four** fresh market varieties of tomatoes **(2mks)**

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9. Name **two** types of inventory records that are kept in the farm **(2mks)**

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10. Outline **two** importance of vegetable crops **(2mks)**

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11. Outline **four** advantages of seed for crop propagation **(2mks)**

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12.a) Name the most appropriate tools used in the following operations **(2mks)**

(i) Branding-

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(ii) Cutting woods along the grains

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(iii) Removing metal chippings in the field.

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(iv) Cutting soft branches of coffee during prunning

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b) Name **four** complimentary tools in livestock production **(2mks)**

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13. Outline **four** ways in which the government policies encourage the growth and development of local Agricultural industries **(4mks)**

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14. Name **four** soil structures **(2mks)**

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15. Write down **one** distinguishing characteristic of the following livestock breeds. **(2mks)**

a) Jersey

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b) Saddleback/Wessex

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c) Earlops

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d) Toggenburg

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16. Give **four** advantages of organic farming **(2mks)**

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17. Name **two** agricultural activities that make Agriculture as an art **(1mk)**

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SECTION B(20 MARKS)

18. A farmer wishes to prepare 100kg starter meal containing 20% DCP using wheat containing 10% DCP and sunflower cake 35% DCP. Using the Pearson's Square Method, show how that ration is computed **(5mks)**

19. The diagram below show various nursery propagation practise. Study them carefully and answer the questions that follow

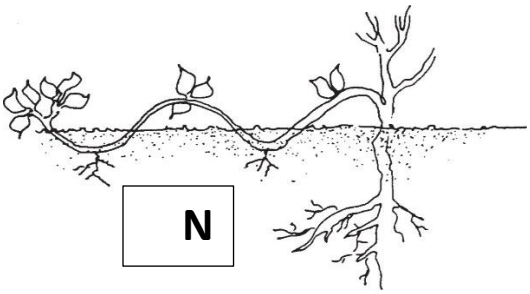


M



O

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i) Name the practice labelled **(3mks)**

M: ……

N: ……

O: ……

ii) State **two** importance of carrying out practice M **(1mk)**

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iii) State **two** advantages of practice N, over other propagation practices**.** **(1mk)**

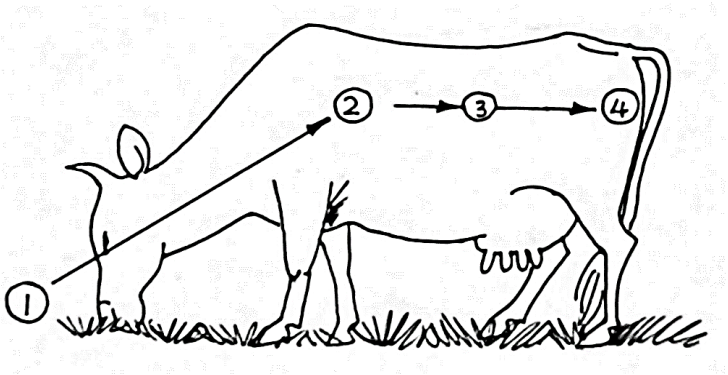
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20. The diagram below illustrates the stages of life cycle of a tick. Study the diagram and answer the following questions that follows



a) Describe the development of tick at **1, 2, 3** and **4** **(4mks)**

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b) Classify the tick on the basis of the life cycle **(1mk)**

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21. Name **two** functions of calcium in dairy cows **(2mks)**

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22. Give **three** characteristics of succulent roughages **(3mks)**

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SECTION C (40 MARKS)

23.a) Explain why minimum tillage is recommended **(5mks)**

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b) State **five** Uses of water in the farm **(5mks)**

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24.Describe **five** field management practises for tomatoes **(10mks)**

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25. Describe **five** methods of farming **(10mks)**

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26. State and give examples of **five** predisposing factors of livestock **(5mks)**

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b) Give importance of keeping livestock healthy **(5mks)**

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NAME: ……..

SCHOOL: ……..

DATE:…….. ADM NO: …… SIGNATURE:……

BIOLOGY
FORM TWO
Time: 2 Hours

INSTRUCTIONS TO CANDIDATES

(a) Write your name, admission number and school in the spaces provided above
(b) Sign and write the date of the examination in the spaces provided above
(c) Answer ALL the questions in the spaces provided on the question paper
(d) Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.
(e) Candidates should answer the questions in English

Max Score	Student's Score
80	

Answer all the questions provided.

1. Why does the fluid of transport in insects loosely called blood lack of pigment equivalent to haemoglobin? **(2mks)**

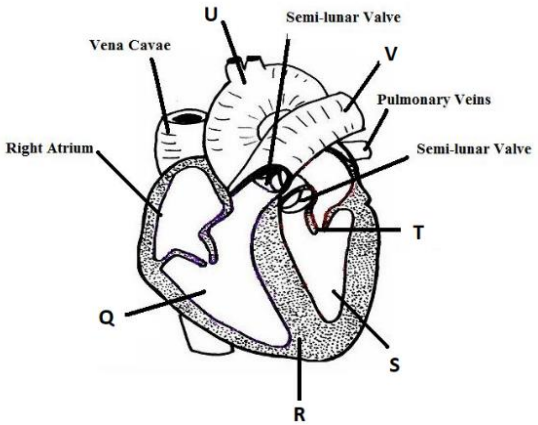
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2. Study the diagram below to answer the questions that follow.



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(a) What is the role of sino atrio node of the heart? **(2mks)**

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(b) Differentiate between components of part labelled **U** and **V**. **(2mks)**

U	V

(c) In developing foetus, blood in structure **Q** and **S** mix. Name the structure responsible for this kind of mixing. **(1mk)**

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(d) Name the congenital disease that comes as a result of the structure named above not able to restore itself after birth. **(1mk)**

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(e) Identify part labeled **R**. **(1mk)**

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3. Below is an equation showing a certain metabolic process.

$$6CO_2 + 6H_2O \xrightarrow{X} C_6H_{12}O_6 + 6O_2$$

(a) Name the process shown above. **(1mk)**

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(b) Name the requirement labeled **X**. **(1mk)**

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(c) State **three** substances with the same formula $C_6H_{12}O_6$ as in above equation. **(3mks)**

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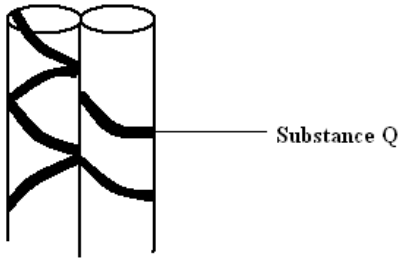
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(d) Name the organ, tissue, cells and organelle where the reaction shown above takes place. **(4mks)**

Organ	
Tissue	
Cell	
Organelle	

4. The diagram below represents a structure of xylem vessel. Study it to answer the questions that follow.



(a) Name substance **Q**. **(1mk)**

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(b) How is the above structure adapted to its function. **(1mks)**

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(c) State **two** functions of roots in plants. **(2mks)**

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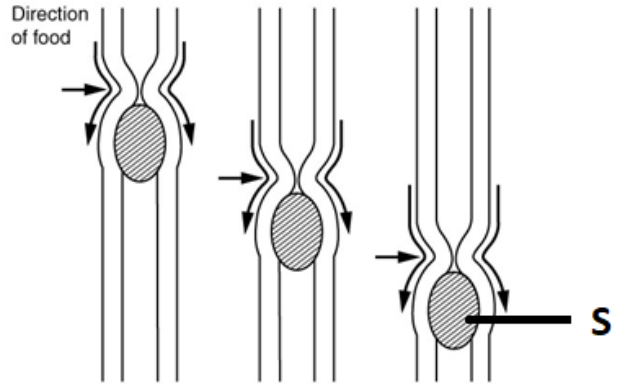
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(d) Name another cell that forms the Xylem tissue other than xylem vessel**.** **(1mk)**

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5. The diagram below represents a stage in the digestion of food along gastrointestinal track.



(a) By what mode does the represented organism feed? **(1mk)**

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What is the name given to the:

(i) Wave of muscular contraction above. **(1mk)**

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(ii) The substance named **S**. **(1mk)**

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(b) Name **three** parts of alimentary canal represented by the above drawing. **(3mks)**

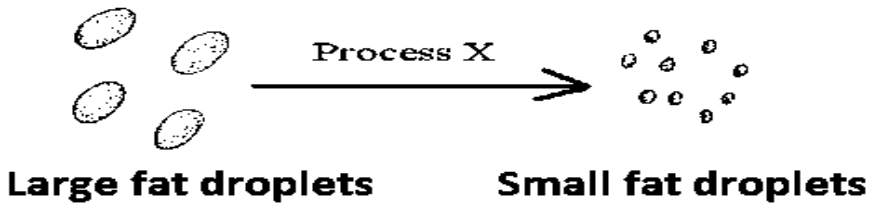
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(c) The process shown below takes place during the digestion of Lipids.



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Where does it take place in mammals and what is its importance? **(2mks)**

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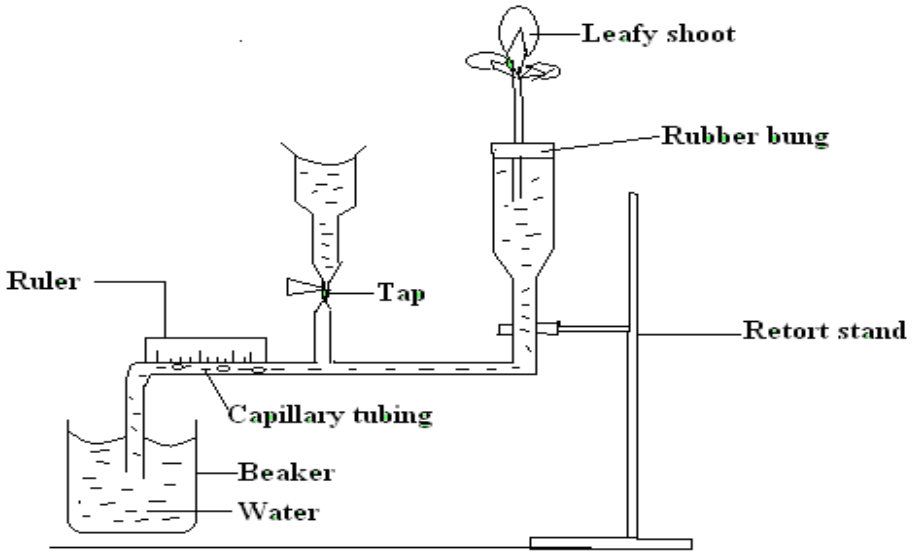
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(e) State the **two** differences in Monocotyledonous stem and Dicotyledous stem. **(2mks)**

Monocotyledonous	Dicotyledonous

6. The figure below shows an experimental set – up to investigate a certain aspect of transport in plants.

A set up that was used to investigate a certain process in plants is shown in the diagram below.



(a) What process was being investigated? **(1mk)**

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(b)(i) State **two** precautions that should be taken when setting up the experiment. **(2mks)**

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(ii) Give a reason for each precaution stated in b (i) above. **(2mks)**

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(c) State **three** environmental factors that influence the process under investigation. **(3mks)**

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(d) Giving reason explain the difference you would expect if the measurements were repeated under the following conditions:-

(i) Shoot is placed near a heat source. **(1mk)**

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(ii) Shoot enclosed in a polythene bag. **(1mk)**

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(iii) The set-up was placed in a dark room. **(1mk)**

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(iv) Shoot is placed in a current of air create by fan. **(1mk)**

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(v) Some of the leaves were removed. **(1mk)**

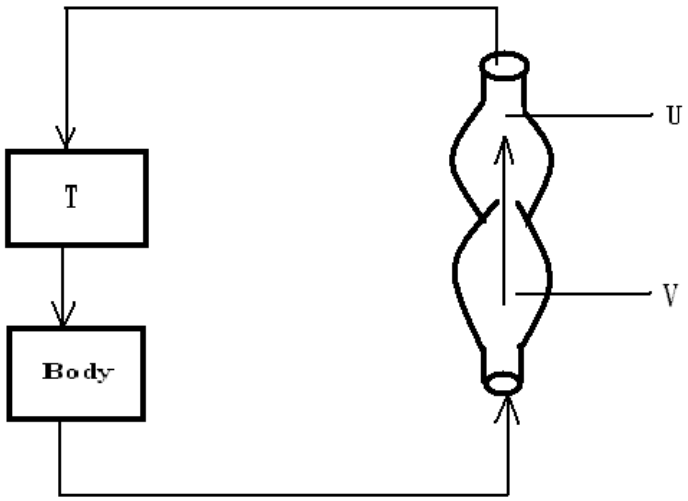
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7. The diagram below shows single circulation in a fish.



(a) Name the parts labeled **T, U** and **V**. **(3mks)**

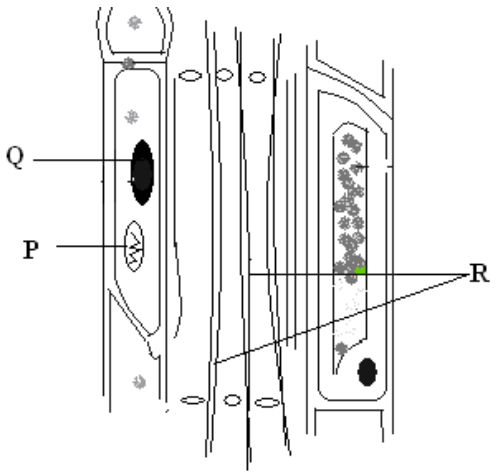
T ……

U ……

V ……

(b) How is the type of circulation different from that found in man. **(1mk)**

(8) The diagram below represents part of a phloem tissue. Study it to answer the question that follow.



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(a) Name the structures labeled **P, Q** and **R**. **(3mks)**

P ……

Q ……

R ……

(b) State the function of the phloem tissue. **(1mk)**

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(c)(i) State how the functioning of the phloem tissue is affected if the companion cell is destroyed. **(1mk)**

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

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9(a) Give a summary of the following processes of photosynthesis.

(i) Light stage. **(4mks)**

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(ii) Dark stage. **(1mks)**

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8. What do you understand by the following terminologies.

Open circulatory system **(1mk)**

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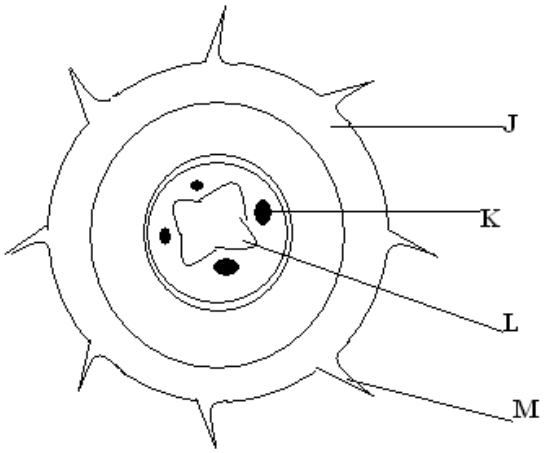
(a) Closed circulatory system **(1mk)**

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9. The diagram below represents a transverse section through a plant organ.



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

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

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(c) Name the labeled parts **J, K , L** and **M**. **(4mks)**

J ……

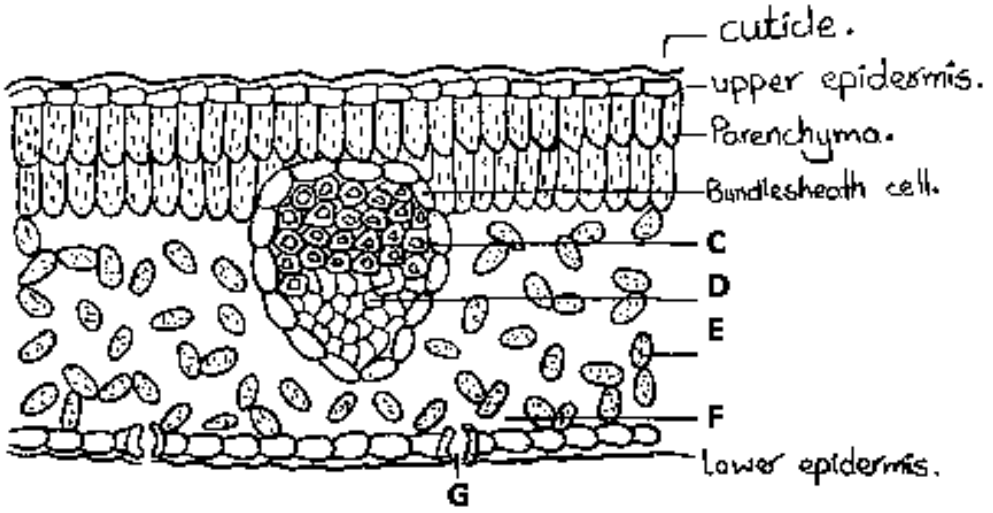
K ……

L ……

M ……..

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10. Study the diagram below and use it to answer the questions that follow.



(a) Name the organ shown in the drawing above. **(1mk)**

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(b) Identify the parts labeled **C** and **D**. **(2mks)**

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(c) Explain the concept of transpirational pull as it may takes place in the structure drawn above. **(3mks)**

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(d) Name **three** forces responsible for movements of water and mineral ions in a stem of a tall plant. **(3mks)**

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DILIGENT STUDENTS FORM 2 END TERM 1 SERIES 1 EXAMS

NAME: ……..

SCHOOL: ……..

DATE:…….. ADM NO: …… SIGNATURE:……

BUSINESS STUDIES FORM 2

INSTRUCTIONS: ANSWER ALL QUESTIONS

TIME: 2 HOURS

1. State 4 disciplines of business studies **(4mks)**

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2. Highlight four features of direct production **(4mks)**

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3. Outline four reasons why human beings make choices when satisfying their wants. **(4mks)**

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4. Outline four ways in which a well laid out business structure may lead to the success of a business**(4mks)**

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5. Highlight four reasons for dishonoring a properly drawn cheque **(4mks)**

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6. Highlight four external business environment that may positively affect the operations of a business.**(4mks)**

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7. State the reward for each of the following factors of production. **(4mks)**

Factors of production	Reward
Land	
Capital	
Entrepreneurship	
Labour	

8. Highlight four documents that are necessary in the registration of a limited liability company **(4mks)**

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9. Outline 4 principles of co-operatives societies **(4mks)**

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10. Highlight four functions of commercial attaches **(4mks)**

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11. Highlight four ways in which a government participate in business activities. **(4mks)**

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12. Outline four ways in which consumers can protect themselves against exploitation **(4mks)**

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13. Highlight four characteristics of an entrepreneur. **(4mks)**

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14. Outline four features of a sole proprietorship form of business unit**.** **(4mks)**

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15. State the meaning of the following terms as used in Business. **(4mks)**

a) Mergers

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b) Holding companies

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c) Franchising

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d) Cartel

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16. Explain five reasons why people prefer to start a partnership business. **(10mks)**

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17. Explain five circumstances under which a business may prefer open office layout **(10mks)**

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18. Explain five differences between private limited and public limited liability companies **(10Mks)**

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19. Explain 5 types of wholesalers in an economy **(10mks)**

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DILIGENT STUDENTS FORM 2 END TERM 1 SERIES 1 EXAMS

NAME: ……..

SCHOOL: ……..

DATE:…….. ADM NO: …… SIGNATURE:……

CHEMISTRY

END-TERM 1

TIME: 2 HOURS

FORM 2

END EXAMINATION

INSTRUCTIONS:

- *Write your **name** and **other details** on the space provided above*
- *Answer **all** the questions in the spaces provided for each question.*
- *All working **must** be clearly shown where necessary.*
- *Mathematical tables and non-programmable electronic calculators may be used.*

For Examiners Use Only

Questions	Total marks	Student's score
1 - 19	80	

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

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(b) The table below shows the 1st ionization energy for elements F, G and H.

Element	1st ionization energy
F	494
G	519
H	418

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(i) Which element has the smallest radius? Explain. **(1mk)**

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(ii) Which element is the most reactive? Explain. **(1mk)**

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2. (a) Give the meaning of the term isotopes. **(1mk)**

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(b) Calculate the percentage abundance of lithium - 7 and lithium - 6 given that the relative atomic mass of lithium is 6.94. **(2mks)**

3. (a) The atomic number of element Q is 16. Write the electron arrangement of the ion Q^{2-}. **(1mk)**

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(b) Write the formula for the compound formed when sodium reacts with element Q. **(1mk)**

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(c) To which group and period of the periodic table does element Q belong ? **(1mk)**

Group……

Period……

4. The table below shows the behaviour of some metals W, X, Y and Z. Study it and answer the following questions.

Metal	Appearance on exposure to air	Reaction with water	Reaction with hydrochloric acid
W	Slowly tarnishes	Slow	Vigorous
X	No change	Does not react	Does not react
Y	Slowly turns white	Vigorous	Violent
Z	No change	No reaction	Reacts moderately

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(a) Arrange the metals in order of their reactivity starting with the least reactive. **(1mk)**

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(b) Name a metal that is likely to be X. **(1mk)**

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(c) Metal Z is in group II of the periodic table. Write an equation for the reaction of metal Z with dilute hydrochloric acid. **(1mk)**

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5. (a) Give the meaning of the term indicator. **(1mk)**

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(b) Classify the following substance as acidic, basic or neutral. Wood ash, lemon juice and common salt.

(3mks)

Acid	Base	Neutral

6. Crystals of iron (III) chloride were heated in a test tube.

(a) Give the name of the process that takes place. **(1mk)**

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(b) Name two other substances that undergo the process named in (a) above. **(1mk)**

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(c) Write an equation to represent the process. **(1mk)**

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7. A student accidentally mixed two solids of sodium chloride and copper (II) oxide.

(a) What is the colour of: **(1mk)**

(i) Sodium chloride?

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(ii) Copper (II) oxide?

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(b) Describe a procedure that can be used to obtain the two solids separately. **(2mks)**

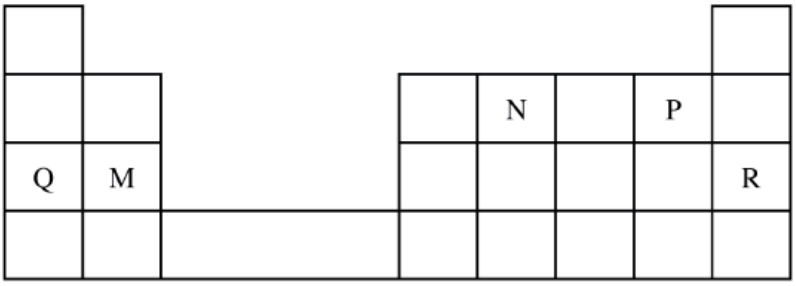
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8. The table below represents part of the periodic table. The letters are not actual symbols of the elements. Study it and answer the questions that follow.



(a) State the most unreactive element. **(1mk)**

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(b) Compare the atomic radius of element N and P. Explain. **(1mk)**

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(c) Write the formula of the nitride of M. **(1mk)**

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9. Sketch the cooling curve of pure water starting from 110^{o}C to -10^{o}C. **(2mks)**

10. An ion is a particle formed when an atom either gains or loses electrons. Draw the structure of the most stable ions of the following elements.

(a) Sodium **(1mk)**

(b) Oxygen **(1mk)**

(c) nitrogen **(1mk)**

11. In an experiment, a burning magnesium ribbon was lowered into a gas jar full of oxygen gas.

(a) State the observation made. **(1mk)**

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(b) Write the equation for the reaction that takes place. **(1mk)**

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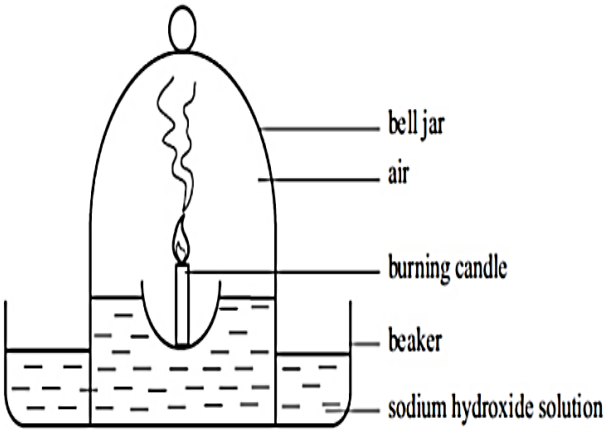
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(c) Give one use of the product formed from the reaction. **(1mk)**

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12. A burning candle was placed in a bell jar containing sodium hydroxide solution as follows.



(a) Draw another diagram to show what you would expect after 2 minutes. **(2mks)**

(b) Explain the observations in 12 (a) above. **(2mks)**

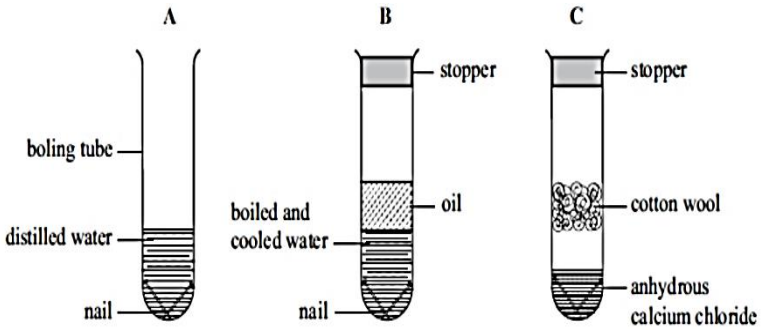
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13. The set-up below was used in an experiment to determine the conditions necessary for rusting.



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(a) In which set-up will the iron nails rust? Explain. **(2mks)**

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(b) A large piece of magnesium buried in the ground and connected to an underground iron pipe prevents the corrosion of the iron pipes. Explain. **(1mk)**

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14. Describe an experiment that can be used to investigate that there is an increase in mass when magnesium is burnt in air. **(3mks)**

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15. A piece of sodium metal was placed in a beaker half-full of water.

(a) State two observations that were made. **(2mks)**

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(b) Explain the observations you have mentioned in (a) above. **(2mks)**

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

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(d) A few drops of phenolphthalein indicator were added to the resulting solution. State and explain the observations that were made. **(2mks)**

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(e) What observations would be made if a piece of calcium metal was used in the experiment instead of sodium metal? **(2mks)**

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16. Study the information in the table below and answer the following questions.

Substance	**Solubility in water**	**Solubility in ethanol**	**Effect on heating**
Sodium chloride	Soluble	Insoluble	No effect
Candle wax	Insoluble	Soluble	Melts into a thick liquid and vapourises
Sand	Insoluble	Insoluble	No effect
Solid aluminium chloride	Soluble	Insoluble	Sublimes

(a) Describe how a mixture of sodium chloride and sand can be separated. **(3mks)**

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(b) A student was given a mixture of solid aluminium chloride and wax and asked to separate the mixture.

(i) Explain why is not advisable to heat the mixture to separate it. **(1mk)**

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(ii) Explain how the mixture can be separated. **(3mks)**

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(c) State one application of the following methods of separation. **(3mks)**

(i) Crystallisation

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(ii) Solvent extraction

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(iii) Filtration

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17. Matter can be classified as pure substances or mixtures.

(a) Give the meaning of the following terms that relate to matter. **(4mks)**

(i) Atom

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(ii) Element

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(iii) Compound

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(iv) Molecule

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(b) Write the chemical formulae of the following compounds. **(4mks)**

(i) Sodium chloride

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(ii) Ammonium sulphate

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(iii) Ammonia gas

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(iv) Sulphuric (VI) acid

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(v) Nitrogen (IV) oxide

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(c) Give the meaning of the term oxidation number. **(1mk)**

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18. Acids and some metals react to give a colourless gas.

(a) Identify solution G and gas X in the following reaction. **(2mks)**

Dilute sulphuric (VI) acid + zinc granules → solution G + gas X

Solution G: ……..

Gas X: ……

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(b) Write the chemical equation for the reaction taking place in (a) above. **(1mk)**

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19. The table below shows pH values of solutions A, B, C, D and E

Solution	pH
A	5.2
B	12.0
C	2.0
D	9.8
E	7.0

(a) Which of the solutions is likely to be: **(2mks)**

(i) Ammonia solution……

(ii) Sodium hydroxide……

(iii) Hydrochloric acid……

(iv) Ethanoic acid……..

(b) Which pH values represent: **(5mks)**

(i) A weak acid……

(ii) A strong acid……..

(iii) A neutral solution……..

(iv) A weak base……..

(v) A strong base…….

This is the last printed page.

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DILIGENT STUDENTS FORM 2 END TERM 1 SERIES 1 EXAMS

NAME: ……..

SCHOOL: ……..

DATE:…….. ADM NO: …… SIGNATURE:……

451/1

COMPUTER STUDIES

FORM TWO

Time 2 HOURS

END TERM 2 EXAMINATION

FORM TWO

INSTRUCTIONS

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

Answer ALL the Questions

All answers should be **written** in the spaces provided

FOR EXAMINERS USE ONLY

QUESTION	SCORE
1 – 27	

1. Define the term password as used in word processor. **(2mks)**

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2. List the **two** types of password used to protect a document. **(2mks)**

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3. Differentiate between editing and formatting as used in word processor. **(4mks)**

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4. State **four** categories of system software. **(4mks)**

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5. Describe **three** examples of application software giving their uses. **(6mks)**

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6. State **four** features of a multimedia capable computer. **(4mks)**

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7. Describe the term ICT **(2mks)**

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8. Differentiate between peripheral devices and system unit. **(4mks)**

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9. State **four** characteristics of super computers. **(4mks)**

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10. State **three** reasons why it is important the computer laboratory has a standard furniture. **(3mks)**

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11. Differentiate between keying in device and pointing device. **(4mks)**

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12. State **four** factors to consider when selecting an input device. **(4mks)**

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13. State **three** characteristics of Read Only Memory. **(3mks)**

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14. Define the term operating system. **(2mks)**

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15. Describe the **three** functional units of a processor. **(6mks)**

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16. State **two** difference between projector and plotter. **(4mks)**

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17. State **four** resources under the control of operating system. **(4mks)**

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18. Differentiate between file and folder. **(4mks)**

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19. Explain the **three** parts of task bar. **(6mks)**

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20. Explain why it is important to carry out the following activities on a disk. **(3mks)**

a. Formatting

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b. Defragmentation

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c. Compression

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21. State **three** types of indentation used in word processor.

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22. State the importance of creating a drop cap when creating a document. **(2mks)**

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23. Explain the **two** types of page orientation used in word processor. **(4mks)**

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24. Write the following acronyms in full. **(4mks)**

a. WIMP

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b. AI

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c. SATA

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d. BIOS

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25. Describe **four** character case options available in word processor. **(4mks)**

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26. State **four** disadvantages of using word processor. **(4mks)**

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27. State **four** features of a file. **(4mks)**

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DILIGENT STUDENTS FORM 2 END TERM 1 SERIES 1 EXAMS

NAME: ……..

SCHOOL: ……..

DATE:…….. ADM NO: …… SIGNATURE:……

CRE

FORM 2

TERM 2

TIME: 2 HOURS

INSTRUCTIONS: ANSWER ALL QUESTIONS.

1. a). State six steps that God took to bring salvation to human beings after the fall of man in Genesis 3 – 11. **(6mks)**

b). Give similarities between the biblical concept of sin and traditional African Concept of evil. **(8mks)**

c) State six ways in which people in traditional African communities take care of God's creation **(6mks)**

2. a) Identify seven characteristics of Canaanite religion **(7mks)**

b) Explain six effects of idolatry in Israel during the time of prophet Elijah. **(6mks)**

c) Outline reasons that may influence some Christians to turn away from God today. **(7mks)**

3. a) Describe how God prepared the Israelites for the making of the covenant at Mt. Sinai. **(8mks)**

b) Identify the conditions set by God for the renewal of the covenant with the Israelites **(6mks)**

c) Give six lessons Christians learn from the incident in which Israelites broke the covenant at Mt. Sinai **(6mks)**

4. a) Explain the role of priests in the traditional African Community. **(8mks)**

b) During which occasion did Africans offer sacrifices to God? **(5mks)**

c) What changes in the understanding of property have occurred in Kenya today? **(7mks)**

5. a) Basing your answer on the infancy narratives in Luke 1:5-56, describe what took place when Mary visited Elizabeth. **(6mks)**

b) Identify six lessons that Christians learn from the lives of Zechariah and Elizabeth. **(6mks)**

c) State eight ways through which Christians in Kenya express their joy for the birth of Jesus. **(8mks)**

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DILIGENT STUDENTS FORM 2 END TERM 1 SERIES 1 EXAMS

NAME: ……..

SCHOOL: ……..

DATE:…….. ADM NO: …… SIGNATURE:……

END-TERM 1

ENGLISH

FORM TWO (2)

Time: 2 ½ Hours

101/1
ENGLISH
PAPER 1
(FUNCTIONAL SKILLS, CLOZE TEST AND ORAL SKILLS)
TIME: 2 HOURS

INSTRUCTIONS

a) Write your name and index number in spaces provided

b) Sign and write the date of examination in spaces provided

c) Answer ALL questions

d) All answers must be written in the spaces provided

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

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Answer all Questions

Q1. Imagine that you are celebrating your fifteenth birthday at home. You have decided to invite your classmate to celebrate with you, write a letter to him/her inviting him/her. In your latter, state two reasons why you decided to invite her but not any other friends, how this birthday is special to you, and a brief description on how he/she can reach your home from Ukulima market **(20mks)**

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Q2. Read the passage below and fill in each blank space with the most appropriate word.

Currently our education **…….** is characterized by a cut-throat competition as our**…….** compete for the**……..** existing vacancies in high schools, colleges and tertiary institutions. It is therefore, important that parents start looking for **……** modes of educating **……** children. For instance, some parents **……** five-year-old for the so called private home tuition where children are pushed **……** the limit and made to learn material they are not ready **……** Most of us will fondly remember **…….** early childhood in the lower primary level when we had all the freedom **……..** explore and learn all the myseries of book knowledge.

3. Study the item below and answer the questions that follow

Deputy Principal: Good afternoon Chebet. Put on your neck tie properly then Introduce yourself please

Chebet : I am Chebet. I want to be a school captain. I am sure I will do better than the current Captain Chepkorir.

Deputy Principal: Why do you think you will make a better School Captain than Chekorir?

Chebet: My father is an elected Member of County Assembly, leadership is in our blood.

Deputy Principal: (Hesitant) Chebet we are interested in the positive changes you will bring to this school as a captain. Do you know the roles of school captain? Did you prepare for this interview?

Chebet: Of course, leaders are born not made. Trust me, I will make you proud.

Deputy Principal: I'm sorry Chebet, leadership is about humility and service. Go to class.

i. Identify four things chebet could have done to improve on her etiquette **(4mks)**

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ii. Why was is important for the deputy Principal to greet Chebet **(2mks)**

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iii. Describe how you would deliver the last sentence of Deputy Principal **(3mks)**

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(b) For each of the following words, provide another two words that are pronounced the same **(6mks)**

i. pair**……**

ii. ware**……**

iii Saw**……**

(c) Underline the silent letters in the following words **(4mks)**

i. Wednesday

ii receipt

iii Chevrolet

iv apostle

(d) Imagine that as you a lead a group discussion, some members are murmuring, some are dosing while others are completely absent minded. Explain Five things you will do to make them active participants. **(5mks)**

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(e) You have seen your classmate sneaking out of school during games time, how would you go about reporting him/her to the teacher on duty who is in the field watching hockey. **(5mks)**

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DILIGENT STUDENTS FORM 2 END TERM 1 SERIES 1 EXAMS

NAME: ……..

SCHOOL: ……..

DATE:…….. ADM NO: …… SIGNATURE:……

Kenya Certificate of Secondary Education

FORM TWO GEOGRAPHY

GEOGRAPHY

Time 2 hours 45 min.

INSTRUCTIONS TO STUDENTS

- Write all the personal details in the spaces provided
- Answer **ALL** the questions in this paper.
- ALL drawings should be made in the spaces provided.
- Answer the Questions in English.

1. a) Name **THREE** sub branches of physical geography **(3mks)**

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b) Explain the relationship between geography and mathematics **(2Mks)**

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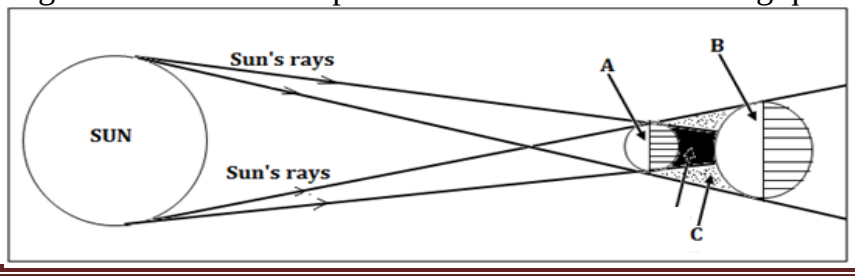
2. a) Name **TWO** planets that lack natural satellites **(2Mks)**

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b) Using the diagram of the solar eclipse below answer the following questions



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i) Name the parts marked A, B, and C. **(3mks)**

- **A- ……..**
- **B- …….**
- **C- ……..**

ii) Apart from the occurrence of eclipses, state **TWO** other effects of the movement of the earth around the sun. **(2mks)**

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c) i. Describe the passing the passing star theory **(4mks)**

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ii. State **THREE** weaknesses of the passing star theory **(3mks)**

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d) What is the local time at Kinshasa 15^0E when local time at Malindi 40^0E is 12:00 noon? **(3mks)**

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3. a) Using a well labelled diagram describe the occurrence of the relief rainfall **(5mks)**

b) Name **THREE** places in Kenya where the rainfall above may be experienced **(3mks)**

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c) State **THREE** problems associated with the convectional rainfall **(3Mks)**

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d) The table below shows mean monthly temperature of Thika town use it to answer the following questions

Month	J	F	M	A	M	J	J	A	S	O	N	D
Temp ºc	19	21	21	24	26	18	17	17	19	20	25	28

Calculate

i.) The mean monthly temperature for Thika town (**2mks)**

ii) The annual range of temperature **(2mks)**

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4 a) i. Define the term minerals **(2mks)**

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ii. Mention **TWO** types of minerals. **(2mks)**

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b) List **THREE** examples of extrusive igneous rocks **(3mks)**

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c) Differentiate between the processes of formation of plutonic and volcanic rocks (**2mks)**

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d) Explain **THREE** reasons why coral rocks are widespread at the coast **(6mks)**

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e) Why is industrial diamond used in shaping hard stones and metals? **(2mks)**

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5.a) Explain **FOUR** factors that determine the formation of landforms by internal land forming processes **(8mks)**

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b) Explain **FOUR** causes of earth movement. **(8mks)**

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c) State **THREE** evidences supporting the continental drift theory **(3mks)**

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d) List **THREE** types of plate boundaries **(3mks)**

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6) a) Differentiate between folding and faulting **(2mks)**

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b) Draw a diagram to show parts of a simple fold **(5mks)**

c) i. Name **THREE** types of folds **(3mks)**

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ii. Describe the formation of fold mountain **(6mks)**

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d) State **THREE** effects of folding on physical environment **(3mks)**

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NAME: ……..

SCHOOL: ……..

DATE:…….. ADM NO: …… SIGNATURE:……

HISTORY AND GOVERNMENT (311)

END OF TERM 1 EXAM

FORM TWO (2)

Time: $2\frac{1}{2}$ ***Hours***

Instructions to Candidates

a. *This paper consists of* ***THREE*** *sections* ***A,B AND C***

b. *Answer* ***ALL*** *QUESTIONS.*

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

Candidates should answer the questions in English

SECTION	MARKS AWARDED	MAXIMUM
A		25 MARKS
B		60 MARKS
C		15 MARKS
TOTAL		100 MARKS

SECTION A (25 MARKS)
ANSWER ALL THE QUESTIONS

1. Define the term linguistics **(1mk)**

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2. Identify two areas of study under Economic branch of History **(2mks)**

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3. Give two custodians of oral traditions **(2mks)**

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4. State two ways in which Homo Erectus attempted to improve his life during the stone age period **(2mks)**

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5. Give two disadvantages of using caves as shelters by the early human beings during the stone age period **(2mks)**

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6. Identify two Types of dwellings used by the early man during the Stone Age period **(2mks)**

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7. Give two disadvantages of hunting by the early man **(2mks)**

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8. State two reasons why early agriculture developed along the rivers **(2mks)**

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9. Identify two early forms of writing that developed in Mesopotamia and Egypt as a result of Agriculture **(2mks)**

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10. Give two Kenyan communities that belong to the Eastern Cushites **(2mks)**

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11. Identify two cultural practices that the Bantu acquired from the Cushites **(2mks)**

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12. State two functions of Kambi among the Mijikenda during the colonial period **(2mks)**

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13. Give two functions of warriors among Kenyan societies in the 19th Century **(2mks)**

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SECTION B (60 MARKS)

ANSWER ALL THE QUESTIONS

14. State five economic activities of the Maasai during the 19th Century **(5mks)**

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

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15. State three reasons that led to the decline of the participation of Akamba in long distance trade in the 19th century **(3mks)**

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b) Explain six results of the long distance trade in East Africa **(12mks)**

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16a) State three factors that favoured the development of a local trade **(3mks)**

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b) Describe the organization of Trans- Saharan trade **(12mks)**

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b.) Explain six ways in which the development of railway transport speeded up industrialization in Europe **(12mks)**

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SECTION C (15 MARKS)

ANSWER ALL THE QUESTIONS

18 State three values of a Good citizen **(3mks)**

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19 Identify two symbols of National Unity in Kenya **(2mks)**

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20Give five circumstances under which right to freedom of movement and residence may be limited **(5mks)**

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21State five ways in which Education promotes national unity **(5mks)**

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DILIGENT STUDENTS FORM 2 END TERM 1 SERIES 1 EXAMS

NAME: ……..

SCHOOL: ……..

DATE:…….. ADM NO: …… SIGNATURE:……

441/1 HOME SCIENCE

FORM TWO

Time: 2 hours

Instructions to students

- Write your name, class, and admission number in the spaces provided.
- Sign and write the date of the exam in the spaces provided.
- The paper consists of three sections: **A, B** and **C.** Answer all the questions in section A and B and any two questions in section C. Answers to all questions must be in the spaces provided.
- The paper has 15 printed pages. Check to see that all the pages are printed and no questions are missing.

For examiner's use only

Section	Question	Maximum Score	Student's Score
A	1-17	40	
B	18	20	
		20	
		20	
Total Score		100	

SECTION A(40 marks)

*Answer **ALL** the questions in this section in the spaces provided.*

1. Name any **four** decorative stitches. **(2mks)**

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2. Highlight **two** ways of caring for pegs. **(2mks)**

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3. Identify **three** factors that may lead to tape worms infestation**.** **(3mks)**

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4. Mention **three** reasons for disposing household refuse correctly**.** **(3mks)**

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5. Define the term sanitation**.** **(2mks)**

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6. State the bacteria that cause the following communicable diseases. **(3mks)**

a) Typhoid ……

b) Bacillary dysentery ……

c) Cholera ……

7. Outline **three** points to observe in the prevention of diarrhoea. **(3mks)**

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8. Give **three** reasons for ironing clothes**.** **(3mks)**

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9. Suggest **three** qualities of a good soak pit**.** **(3mks)**

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10. Suggest any **three** situations where on needs to take more water**.** **(3mks)**

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11. List **two** methods of cooking Irish potatoes. **(1mk)**

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12. Highlight **two** reasons for keeping finger nails short. **(2mks)**

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13. Give **two** reasons for pouring hot water down a kitchen sink after cleaning**.** **(2mks)**

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14. Suggest **three** qualities of a good refuse container. **(3mks)**

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15. Mention **two** organs in the body that can be affected by tuberculosis (TB). **(1mk)**

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16. Suggest **two** ways of removing excessive moisture after washing clothes**.** **(2mks)**

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17. Give **two** reasons why clothes should be thoroughly rinsed before drying**.** **(2mks)**

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SECTION B (20 marks)

(Compulsory)

Answer question 18 in the spaces provided

18. Your mother has requested you to help in the weekly cleaning in the house.

a) Outline the procedure you would use to clean her blocked kitchen sink**.** **(7mks)**

b) State how you would launder her knitted acrylic shawl. **(8mks)**

c) Explain how you would clean her plastic kitchen dustbin. **(5mks)**

SECTION C (40 marks)

*Answer **ANY** two questions from this section in the spaces provided.*

19. a) Explain **three** points to consider when selecting a cooking pot/*sufuria*. **(6mks)**

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b) Explain **three** qualities of a good bath towel. **(6mks)**

c) Discuss **four** preventive measures one can use to prevent the spread of influenza. **(8mks)**

20. a) Explain **four** reasons why students should avoid drying clothes on the ground. **(8mks)**

b) Discuss **four** possible causes of typhoid infections in schools. **(8mks)**

c) Give **four** challenges faced by adolescents during long school vacations**.** **(4mks)**

21.a) Mention **four** disadvantages of using open drains in a compound. **(4mks)**

b) Outline **four** reasons why type of soil is an important consideration when building a house. **(4mks)**

c) Suggest **four** ways of avoiding water pollution in Kenya**.** **(4mks)**

d) Explain **four** rules on stain removal. **(8mks)**

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DILIGENT STUDENTS FORM 2 END TERM 1 SERIES 1 EXAMS

NAME: ……..

SCHOOL: …….....

DATE:…….. ADM NO: …… SIGNATURE:……

Term 2 IRE

FORM TWO (2)

Time: 2½ Hours

INSTRUCTIONS TO CANDIDATES

a) Answer ALL THE QUESTIONS

b) All answers must be in English

1. a) Give reasons why Qur'an was not compiled during the time of the prophet. (S.A.W) **(6mks)**

b) Explain the reasons why Zaid bin Thabit was chosen to level the panel of complilation of the Qur'an. **(4mks)**

c) Draw lessons from the last two verses of Suratul-Baqarah. **(5mks)**

2. a) Discus the factors that led the Tabi-Tabiin to be the Golden age of Hadith Collection. **(6mks)**

b) Explain the four forms of Hadith. **(4mks)**

3. a) Explain the types of Saum. **(10mks)**

b) Outline the social benefits of Zakat **(5mks)**

4. a) Mention five other names of Yaumul Qiyama. **(5mks)**

b) Enumerate the roles of the prophets in the facilitation of the messages. **(5mks)**

5. a) Why is dowry (Mahr) important in Islam? **(4mks)**

b) Name five wives of the prophet. **(5mks)**

c) State any six obligations of a child towards his/her parents. **(6mks)**

6. a) List the virtues of our beloved prophet Muhammad (p.b.u.h) **(5mks)**

b) Outline the vices on today's society**.** **(5mks)**

7.a) list six terms of the treaty of Hudhaibiyah. **(6mks)**

b) As Muslims what do we learn from the results of the battle of Uhud? **(5mks)**

c) Outline the themes of the prophet's Fare well speech. **(4mks)**

8a) Discuss the Achievements of Sheikh Swaleh Al-Farsy to the Growth of Islam in East Africa. **(6mks)**

b) Explain any 4 (four) educational contributions brought by sherkh Al-Amin bin Aki-Mazrui. **(4mks)**

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DILIGENT STUDENTS FORM 2 END TERM 1 SERIES 1 EXAMS

NAME: ……..

SCHOOL: …….....

DATE:…….. ADM NO: …… SIGNATURE:……

KISWAHILI KIDATO CHA PILI

MTIHANI WA MUHULA WA 2

MUDA: SAA 2 ½

Maagizo:

1. Jibu maswali yote.

2. Majibu yote yaandikwe katika nafasi ulizoachiwa katika karatasi hii ya maswali

3. Majibu yote **lazima** yaandikwe kwa lugha ya Kiswahili

4. Karatasi hii ina kurasa 8 zilizopigwa chapa

5. Watahiniwa ni lazima wahakikishe kuwa kurasa zote za karatasi hii zimepigwa chapa sawasawa na kuwa maswali yote yamo.

Kwa Matumizi ya Mtihani Pekee.

Swali	**Upeo**	**Alama**
1. UFAHAMU	15	
2.MATUMIZI YA LUGHA	40	
3.ISIMUJAMII	10	
4.FASIHI SIMULIZI	15	
Jumla	80	

UFAHAMU

Soma kifungu kifuatacho kisha ujibu maswali

Watu wengi hawawezi kunywa chai au uji bila sukari. Wanatumia sukari kwa hamu na ghamu bila kutambua kuwa hiyo ni sumu wanayojiongezea mwilini. Ni ukweli usiopingika kuwa wazee wetu wa jadi waliishi muda mrefu wakiwa na afya njema kuliko sisi.Hii ni kwa kuwa waliishi katika kipindi ambacho

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sukari inayotengenezewa viwandani haikuweko. Iwapo ilikuweko ilikuwa bidhaa ya wateule waungwana na akina yahe hawangeweza kuigharamia.

Watafiti wa maswala ya afya wamegundua kuwa sukari inayotayarishwa viwandani sasa hivi haina virutubishi vyovyote. Umuhimu wake ni kutia ladha tamu tu. Umuhimu huu hauwezi kulinganishwa na madhara yanayoletwa na sukari hii. Baada ya kusagika mwilini,sukari hii huacha masalio ya asidi mwilini yenye sumu inayoathiri siha. Halikadhalika utaratibu wa viwandani wa kutayarisha sukari ili iwe nyeupe na kuichunga huharibu virutubishi vinavyoweza kuwa muhimu mwilini.

Matumizi ya sukari kwa wingi husabisha madhara mwilini. Kwanza huchangia kuoza na kuharibika kwa meno. Pili sukari nyeupe imehusishwa na ongezeko la maradhi ya kisukari, moyo na hipoglisimia au upungufu wa sukari mwilini. Matumizi holela ya sukari huleta kipandauso au ugonjwa wa ghafla wa kuumwa upande mmoja wa kichwa unaoambatana na kichefuchefu, kutapika na matatizo ya kuona. Pia huleta maradhi ya Ngozi, hufanya mishipa inayotoa damu moyoni kuisambaza mwilini kuwa nyembamba na sugu, moyo hulazimika kusukuma damu kwa nguvu na huenda moyo ukachoka kufanya kazi.

Madhara ya sukari ndiyo yanayowafanya watu wengi kukiri kuwa sukari ingawa ni tamu,ni sumu mwilini. Waatalamu wa lishe wamependekeza ulaji wa vyakula kama nafaka, matunda, mboga na miwa ambavyo vimejaa sukari asilia.

Fauka ya hayo,sukari inayotoka katika asali ni bora zaidi kwa mwili wa mwanadamu. Sukari hii huwa na sukari asilia,vitamin, madini na amino asidi. Hivi vyote huwa na manufaa mbalimbali mwilini. Mathalani,asali huuchangamsha mwili. Asali huwa na kemikali ambazo husaidia watoto kukua vizuri. Huweza kuzidisha kiwango cha himoglobini,hivyo hupunguza uwezekano wa watoto kuwa na anemia(upungufu wa damu). Halikadhalika,asali husaidia mwili kujikinga dhidi ya magonjwa ya kukohoa. Asali husaidia pia kuondoa harufu mbaya kinywani.

Asali inaweza kutumiwa kujipaka. Inapotumiwa kwa njia hii,hutunza ngozi na kufanya inga’re, huondoa vipele na ugumu wa ngozi pamoja na kutibu ngozi iliyokatikakatika. Halikadhalika asali hutibu vidonda

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na harufu mbaya kinywani. Viwanda vingi vya vipodozi hutumia asali kama malighalifi muhimu katika utengenezaji wa bidhaa.

Maswali:

a) Ipe taarifa uliyoisoma kichwa mwafaka **(alm1)**

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b) Taja matumizi mawili ya sukari nyeupe **(alm2)**

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c) Onyesha madhara matatu ya sukari nyeupe mwilini. **(alm3)**

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d) Eleza aina ya sukari iliyo na manufaa mwilini mwa mwanadamu na kwa nini? **(alm2)**

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e) Eleza manufaa ya asali

(i) ndani ya mwili **(alm2)**

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(ii) Nje ya mwili **(alm2)**

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f) Eleza maneno yafuatayo kama yalivyotumika;

i) Hamu na ghamu

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ii) Akina yahe

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(iii)vipodozi

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3. MATUMIZI YA LUGHA

(a)i) Tambua vigezo vitatu vya kuainisha konsonanti za Kiswahili. **(alm3)**

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ii) Taja ala zinazotumika katika kutamka sauti zifuatazo: **(alm2)**

(i) |h|

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(ii) |k|

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(b) Andika neno lenye muundo ufuatao **(alm1)**

Nazali ya ufizi, irabu ya chini, irabu ya chini, nazali ya midomoni

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(c) Bainisha miundo ya silabi katika maneno yafuatayo **(alm2)**

Ngo'a**……**

ngoma**……**

(d) Bainisha mofimu katika neno lifuatalo. **(alm2)**

wasomacho

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(e) Iandike sentensi ifuatayo ukitumia kiwakilishi cha pekee o – ote. **(alm.2)**

Mitihani yote itungwayo na Zeraki hupatikana mtandaoni.

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(f) Andika katika kauli ya kutendewa **(ala.2)**

(i) -ja

……

(ii) imba

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(h) Andika katika udogo wingi. **(ala.2)**

Kiti chake kimevunjika

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(i) Akifisha sentensi hii: Safari ya hamisi ilingoa nanga jumatatu **(alm2)**

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(j) Tunga sentensi zenye dhima zifuatazo **(ala. 2).**

i) agizi

……..

ii) amrishi

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(k) Tunga sentensi ukitumia nomino zifuatazo pamoja na kivumishi kimilikishi -ake. **(ala. 2)**

(i) Werevu

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(ii) Gari

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(l) Geuza katika usemi halisi **(ala.2)**

Polisi alitaka kujua alikotoka usiku huo.

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(m) Tumia kielelezo cha mistari kuchanganua sentensi.

Mwanafunzi mmoja anasoma kitabu vizuri **(ala.4)**

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(n) Bainisha matumizi ya '-zuri' katika sentensi ifuatayo. **(alm3)**

Wanafunzi wazuri wametuzwa vizuri kwa uzuri wao.

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(o) Kanusha sentensi ifuatayo **(alm2)**

Uchaguzi mkuu utafanyika mwaka huu

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(p) Andika kulingana na maagizo yaliyotolewa. **(ala.2)**

Mwalimu anamtaka mwanafunzi mmoja kumsaidia kazi (Anza kwa: Mwanafunzi…….

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(q) Onyesha kiima, kundi nomino na kundi tenzi katika sentensi hii. **(alm3)**

Gari jipya limenunuliwa na babake.

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(r) Andika kinyume cha: **(ala.1)**

Hasira amefunga mlango.

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(s) Toa neno jingine lenye maana sawa na: **(ala.1)**

ukata

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4. ISIMU JAMII (ALAMA 10)

A: Bwana asifiwe!

B: Amina

A: Karibu ndugu mpenzi.Bwana anakuita umfungulie moyo wako.

B: Nami naupokea mwito huo wa Bwana aliye juu

Maswali:

1. Eleza sifa **mbili za sajili ya maabadini kutokana na kifungu hiki** **(alm2)**

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2. Eleza sifa nyingine nane ambazo zingejitokeza katika sajili hii **(alm8)**

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FASIHI SIMULIZI (Alama 15)

Soma kifungu kufuatacho kisha ujibu maswali yanayofuata

Pema usijapo pema ukipema si pema tena

a. Tambua vipengele vifuatavyo vya kifungu hiki cha fasihi simulizi **(alm2)**

i) utanzu**……**

ii) kipera**……..**

b. Kipera hiki kina sifa mbalimbali. Eleza zozote nne. **(alm4)**

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c. Kipera hiki kina umuhimu upi katika jamii yako? **(alm4)**

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d) Umegundua kuwa utanzu huu wa fasihi simulizi uko katika hatari ya kufifia, je ni njia zipi utakazotumia kuudumisha **(alm5)**

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DILIGENT STUDENTS FORM 2 END TERM 1 SERIES 1 EXAMS

NAME: ……..

SCHOOL: ……..

DATE:…….. ADM NO: …… SIGNATURE:……

End-Term 1

MATHEMATICS (Alternative A)

FORM TWO (2)

Time: 2½ Hours

INSTRUCTIONS TO CANDIDATES

(a) Write your name, admission number, school and class in the spaces provided at the top of this page.

(b) Sign and write the date of the examination in the spaces provided above.

(c) This paper consists of **two** sections: **Section I** and **Section II.**

(d) Answer **ALL** questions in **Section I** and **any five** questions from **Section II.**

(e) Show all the steps in your calculations, giving your answers at each stage in the spaces provided below each question.

(f) Marks may be given for correct working even if the answer is wrong.

(g) Non-programmable silent electronic calculators and KNEC Mathematical Tables may be used.

(h) **Candidates should check the question paper to ensure that all the pages are printed as indicated and no questions are missing.**

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SECTION I

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

SECTION II

17	18	19	20	21	22	23	24	Total	Grand Total	

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SECTION I:

Answer all the questions in this section in the spaces provided for each

1. Evaluate $\frac{-4\{(-4+-15\div5)+-3-4\div2\}}{84\div-7+3--5}$ **(3mks)**

2. Use squares, cubes and reciprocal tables to evaluate, to 4 significant figures, the expression;

$\frac{1}{\sqrt[3]{27.56}}+\frac{3}{(0.071)^2}$ **(3mks)**

3. Use substitution method to solve the simultaneous equations:

$3\times-2y=7$

$5\times+y=3$ **(3mks)**

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4. The interior angle of a regular polygon with 3x sides exceeds the interior angle of another regular polygon having x sides by 40˚. Determine the value of x. **(3mks)**

5. A man is now three times as old as his daughter. In twelve years' time he will be twice as old as his daughter. Find their present ages. **(3mks)**

6. Two similar cylinders have diameters of 7cm and 21cm.If the larger has a volume of 6237cm^3 . Find the height of the two cylinders ($take\ \pi\ = 22/7$) **(3mks)**

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7. Simplify the following expression by reducing it to a single fraction.

$\frac{2x-3}{3} - \frac{x-2}{2} - \frac{x-1}{4}$ **(3mks)**

8. A trader sold an article at 15% discount to a customer who paid sh 510 for it. What was the marked price of the article? **(2mks)**

9. A number y is such that, when divided by 32, when divided by 40 and when divided by 24, the reminder is 21. Find the number y. **(4mks)**

10. Use logarithms to evaluate: **(4mks)**

$\frac{43.25 \times 0.9371}{\sqrt{2.64} \div 8.43}$

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11. A line is drawn through point $(3,5)$ perpendicular to line $2y + x = 3$. Find the equation of the line.

(3mks)

12. Without using a calculator, evaluate. $\frac{{}^{1}/_{2}of3{}^{1}/_{2}+1{}^{1}/_{2}(2{}^{1}/_{2}-{}^{2}/_{3})}{{}^{3}/_{4}of2{}^{1}/_{2}\div{}^{1}/_{2}}$ **(3mks)**

13. A map is drawn using a scale of 1:200000. Find the actual area represented on the map by a rectangle 2cm by 2.5cm, giving your answer in km^2. **(3mks)**

14. Three Craftsmen takes $10^{1}/_{2}$hours to wire a building. How many Craftsmen working at the same rate will complete the work in $5^{1}/_{4}$hours? **(3mks)**

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15. Awour uses one third of her farm for coffee, one quarter for tea and two fifths of the remainder for mixed farming. She still has 6 hectares of unused land .Find the size of her farm. **(3mks)**

16. A certain alloy is prepared using 6kg of copper, 2kg of Zinc, and 0.5kg of Tin.

(a) What percentage of the compound is Tin? **(2mks)**

(b) Find the ratio of copper to tin? **(2mks)**

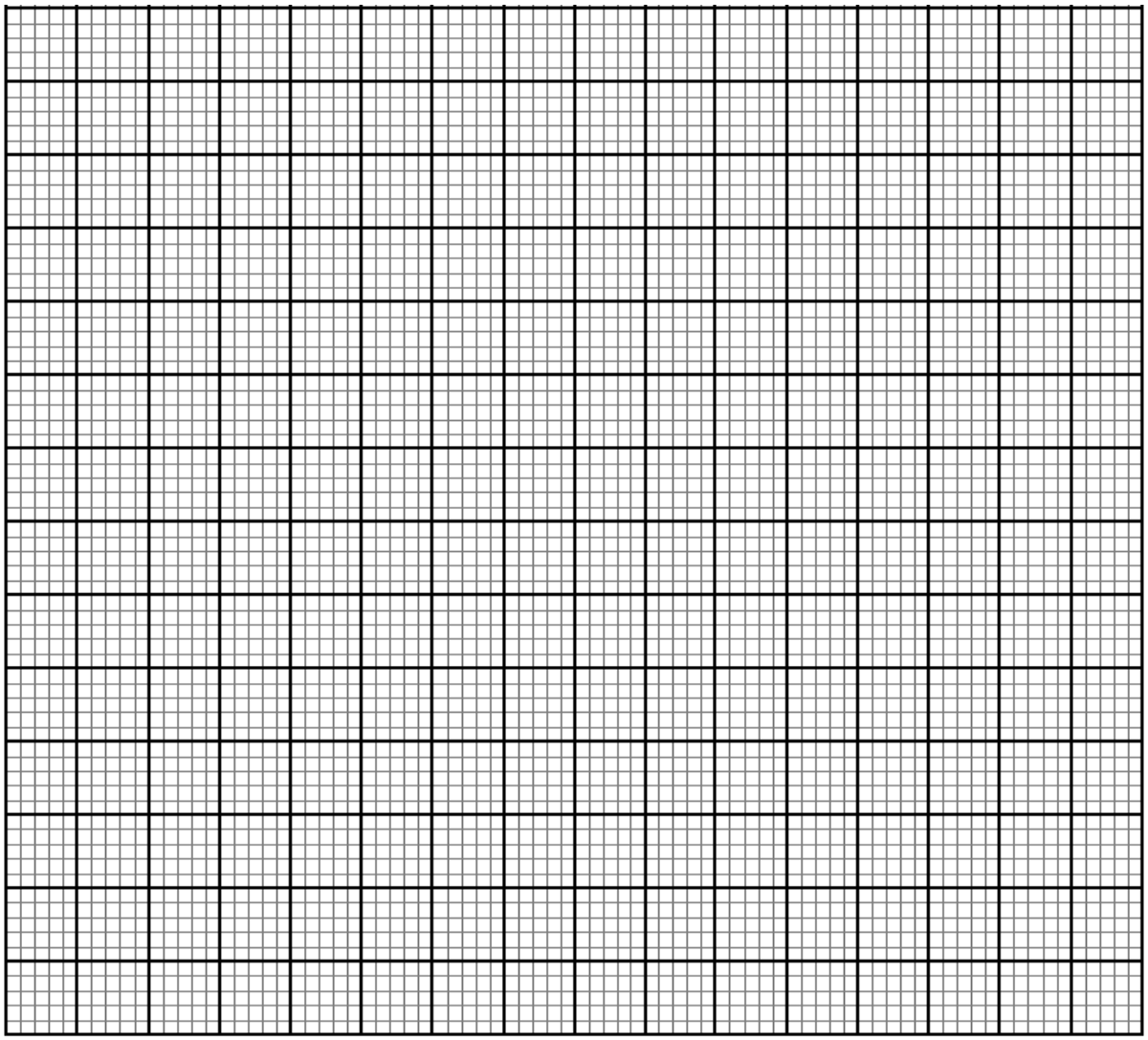
SECTION II

Answer all questions in the spaces provided.

17. A triangle has vertices A(1,2), B(7,2), and C(5,4).

(a) Draw triangle ABC on the Cartesian plane**.** **(1mk)**

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(b) Construct triangle A'B'C' the image of triangle ABC under rotation of 90^0 clockwise about the origin. **(3mks)**

(c) Draw triangle A"B"C", the image of triangle A'B'C' under a reflection in the line $y = x$. state the coordinates of A", B" and C" **(3mks)**

(d) Triangle A"'B"'C"' is the image of triangle A"B''C" under reflection in the line $y = 0$. Draw triangle A"'B"'C"' and state the coordinates of its vertices**.** **(3mks)**

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18. (a) Using a ruler and a pair of compasses only ,construct triangle ABC in which $AB = 5cm$, $BC = 5.9$ and angle $BAC = 45°$ **(4mks)**

(b) Draw the circumcircle of the triangle touching point A, B and C. **(3mks)**

(c) By taking AB as the base, find the area of the triangle**.** **(3mks)**

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19. (a) A straight line L_1 whose equation is $9y - 6x = -6$ meets the x-axis at Z. Determine the coordinate of Z. **(3mks)**

(b) A second line L_2 is perpendicular to L_1 at Z. Find the equation of L_2 in the form $ax + by = c$ where, b and c are integers. **(2mks)**

(c) A third line L_3 passes through the point (2,5) and is parallel to L_1. Find

i. The equation of L_3 in the form $ax + by = c$, where a, b and c are integers. **(2mks)**

ii. The coordinate of point R at which L_2 intersects L_3 **(3mks).**

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20. Wanyonyi spent sh. 10,500 to buy a number of shirts and trousers from wholesaler at sh.150 per shirt and sh.300 per trouser. Atandi bought the same number of shirts and trouser from another wholesaler where he paid 20% more for a shirt and 10% less for a trouser. Atandi spent sh. 300 more than Wanyonyi.

a) Determine the number of shirts and trousers each man bought? **(4mks)**

b) Wanyonyi sold all the clothes at a profit of 50% per shirt and 30% per trouser. How much profit did he make? **(3mks)**

c) Atandi sold all his clothes at profit of 45% per shirts and 60% per trouser. Calculate the percentage profit he made on the sale of all clothes? **(3mks)**

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21. A bus left Kampala on Wednesday evening and traveling to Mombasa according to the travel time table below arriving there on Friday,

Kampala	Departure	2015h
Malava	Arrival Departure	0430h 0655h
Nakuru	Arrival Departure	1325h 1455h
Nairobi	Arrival Departure	1840h 2030h
Mombasa	Arrival	0500h

Calculate;

a) The time taken by the bus to travel from.

i. Kampala to Malava. **(1mk)**

ii. Malava to Nakuru. **(1mk)**

iii. Nakuru to Nairobi. **(1mk)**

iv. Nairobi to Mombasa. **(1mk)**

b) The total travelling time between Kampala and Mombasa. **(2mks)**

c) The total stoppage time during the whole journey. **(2mks)**

d) The average speed for the whole journey given that the distance between Kampala and Mombasa is 1965km. **(2mks)**

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DILIGENT STUDENTS FORM 2 END TERM 1 SERIES 1 EXAMS

NAME: ……..

SCHOOL: ……..

DATE:…….. ADM NO: …… SIGNATURE:……

PHYSICS

THEORY

Time: 2 hours

Kenya Certificate of Secondary Education

FORM 2 PHYSICS

Instructions to Candidates

- Write your name, admission number, class and signature in the spaces provided at the top of the page. This paper consists of two sections; **A** and **B.**
- Answer **ALL** the questions in the spaces provided.
- Mathematical tables and electronic calculator may be used.
- All working MUST be clearly shown.
- This paper consists of **15** printed pages.
- Candidates should answer the questions in English and check to ensure that no question(s) is missing.

FOR EXAMINER'S USE ONLY

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1 – 13	25	
	14	11	
	15	12	
	16	11	
	17	10	
	18	11	
TOTAL SCORE		**80**	

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SECTION A (25 MARKS)

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

1. Figure 1 shows a section of a Vernier calipers used to measure the external diameter of a tube. The Vernier calipers has a zero error of 0.3cm. Determine the actual diameter of the tube. **(1mk)**

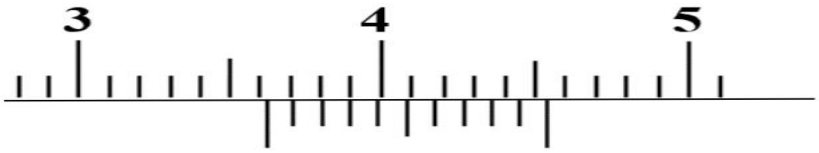


Figure 1

2. A student used a container of mass x grams in an experiment to determine the density of a liquid. The following data was obtained:

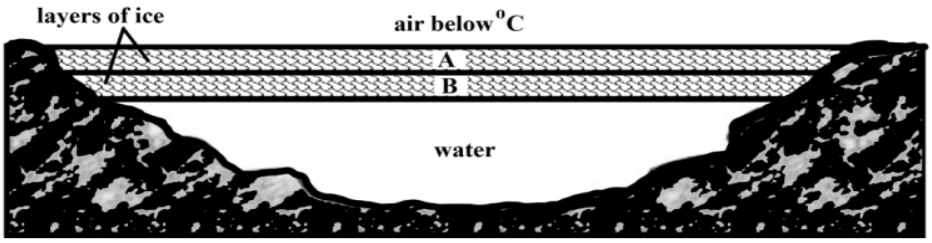
Mass of empty container = xg

Mass of container when full of water = 80g

Mass of container when full of the liquid = 70g

The student obtained the density of the liquid to be$0.8\ g/cm^3$. If the density of water is $1\ g/cm^3$, determine the value of x**.** **(3mks)**

3. Figures 2 shows two layers, A and B, of ice of equal thickness formed in a frozen pond



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Figure 2

It is observed that layer B took longer to form even when the air above the pond remained at the same low temperature. Explain this observation. **(2mks.)**

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4. Figure 3 shows two containers filled with equal volume of hot water.

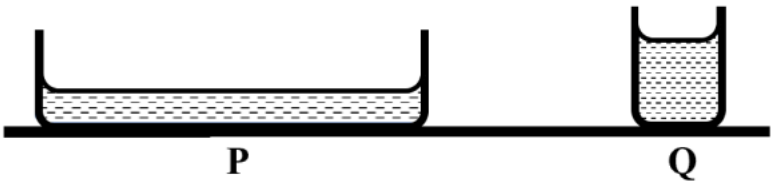


Figure 3

State, with a reason, in which container will water cool faster. **(2mks)**

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5. Figure 4 shows a uniform horizontal beam of mass 5 kg pivoted at one end. The beam is supported by a spring and loaded with a mass of 2 kg.

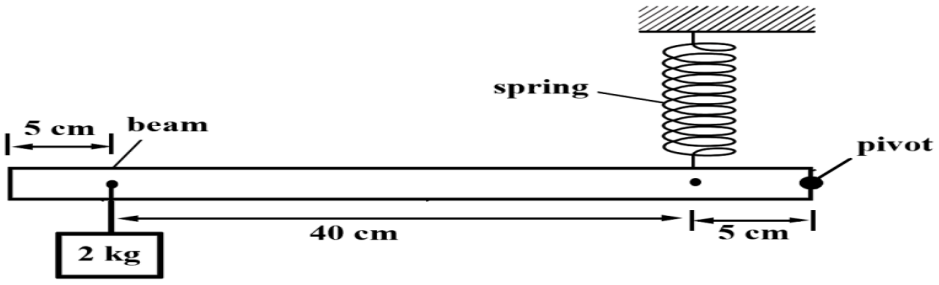


Figure 4

Calculate the tension in the spring when the beam is horizontal. **(2mks)**

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6. The set up in figure 5 was used to compare the rates of diffusion of ammonia and hydrochloric acid. In the experiment, cotton wool soaked in ammonia solution placed in one end of a long tube and cotton wool soaked in hydrochloric acid in the other end. A white ring forms in the tube as shown in the diagram.



Figure 5

State with a reason which gas diffused faster**.** **(2mks)**

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7. When a person carries a load in one arm, the other arm swings away from the body and the torso bends away from the load as shown in figure 6.

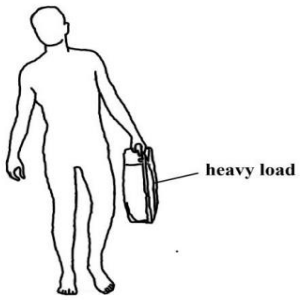


Figure 6

Explain why this is necessary. **(2mks)**

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8. Oil accidentally spills in the sea and spread to form a monolayer film of area $2 \times 10^{12} cm^2$. The oil molecule has a thickness of $5 \times 10^{-19} m$.Determine the volume of the oil that spilt. **(2mks)**

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9. A negatively charged rod is brought slowly towards the cap of a highly positively charged leaf electroscope. State and explain the observation made**.** **(2mks)**

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10.A person standing out in the garden at night is observed to have two shadows of different sharpness. Explain this observation**.** **(1mk)**

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11. The magnetic field lines between the poles of two bar magnets, X and Y, are shown in Figure 7 below.

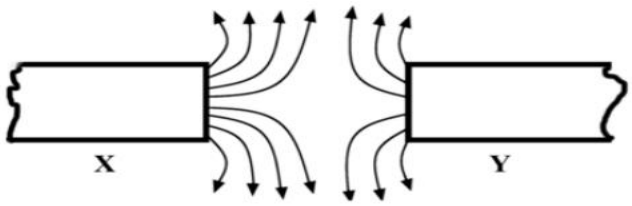


Figure 7

State with a reason which magnet is stronger. **(2mks)**

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12. Figure 8 shows some water trapped on a canvas tent.

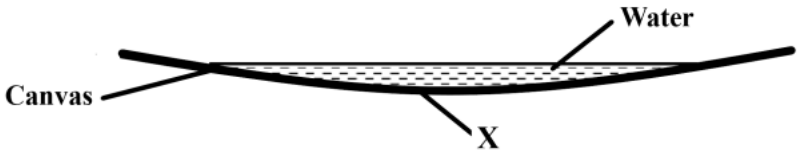


Figure 8

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(i) Give a reason why water is trapped on the canvas**.** **(1mk)**

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(ii) State and explain what is observed when soap is smeared at a point X on the lower side of the canvas. **(2mks)**

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13. Explain why brakes fail in a hydraulic brake system when air gets in to the system. **(1mk)**

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SECTION B (55 MARKS)

Answer all the questions in this section in the spaces provided

14. a) Other than being not visible give another reason why water is not a good barometric liquid. **(1mk)**

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b) State the principle of transmission of pressure in fluids. **(1mk)**

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c) Figure 9 shows a hydraulic lift in a car repair workshop.

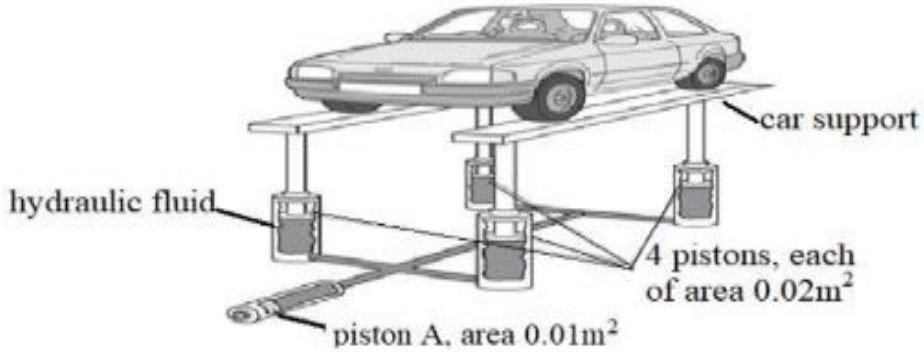


Figure 9

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The hydraulic fluid transmits the pressure caused by piston A, equally to each of the four pistons holding up the car supports. The pressure throughout the fluid is the same. A force of 1000 N on piston A is just enough to raise the car.

Determine;

I. The pressure caused by piston A on the hydraulic fluid. **(2mks)**

II. The total upward force caused by the fluid. **(3mks)**

III. The weight of each of the two car supports is 1000 N. Calculate the mass of the car. **(2mks)**

c) State two properties to be considered when choosing the hydraulic fluid used in this system. **(2mks)**

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15.a) A solar panel is mounted on the roof of a house. Figure 10 shows a section through part of the solar panel.

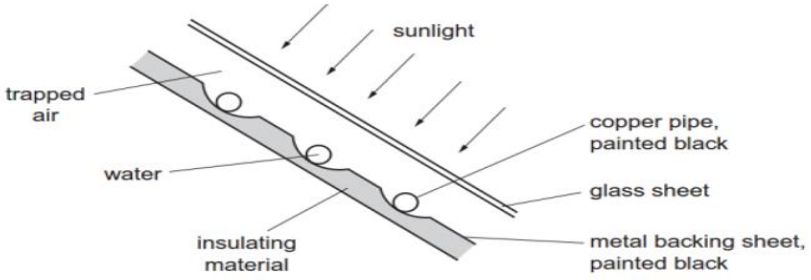


Figure 10

A pump makes water circulate through the copper pipes. The water is heated by passing through the solar panel. (a) give a reason for the following;

(i) The pipes are made of copper**.** **(1mk)**

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(ii) The pipes and the metal backing sheet are painted black**.** **(1mk)**

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(iii) An insulating material is attached to the metal backing sheet. **(1mk)**

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b) The water in the set up in figure 11 is heated until it starts boiling.

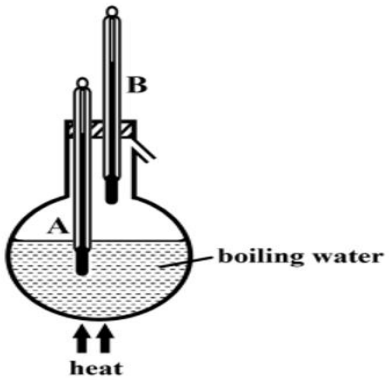


Figure 11

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It is observed that the reading of thermometer A is higher than that of thermometer B. Explain this observation. **(2mks)**

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c) Differentiate between heat and temperature. **(2mks)**

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d) Figure 12 shows an inverted flask fitted with a capillary tube dipped into a water which is at room temperature.

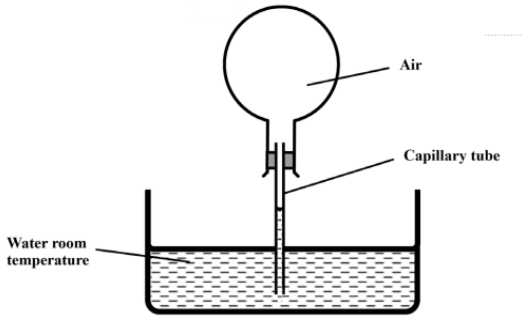


Figure 12

Explain what is observed when the flask is held with warm hands. **(3mks)**

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e) Figure 13(a) shows a setup with identical glass bulbs P and Q, filled with air and connected by a U-tube containing

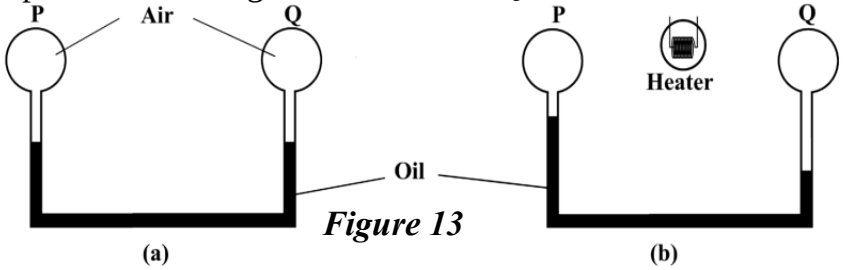


Figure 13

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In figure 13(b) shows the same setup after an electric heater placed in the space between P and Q, is switched on for a few minutes. Explain **the possible cause of the** differences in oil levels in figure 13(b).

(2mks)

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16.a.) Figure 14 below show a mirror with the lower end pivoted to a wall and the other end suspended using a flexible rubber band 20cm long such that it makes an angle of 35° with the wall.

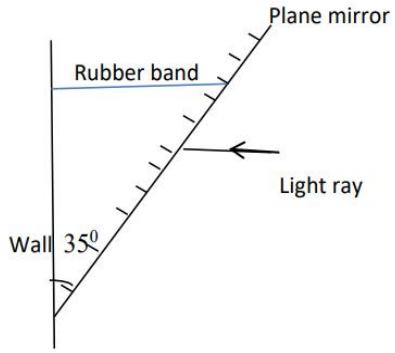


Figure 14

In a hot afternoon, the rubber band stretches by 22.12mm, a ray of light strikes the mirror horizontally. Calculate the angle between the horizontal and the new reflected ray. **(3mks)**

b.) State two differences between images formed by pinhole camera and a Plane mirror. **(2mks)**

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c.) Figure 15 shows an object O placed between plane mirrors inclined at right angles.

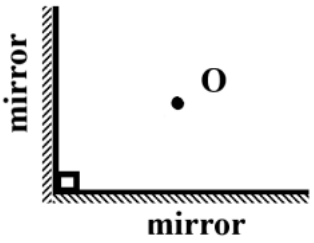


Figure 15

Determine the number of images formed. **(2mks)**

d) Describe the image formed by a plane mirror. **(2mks)**

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e.) A student placed three cards each with a small hole at the Centre in a straight line as shown below.

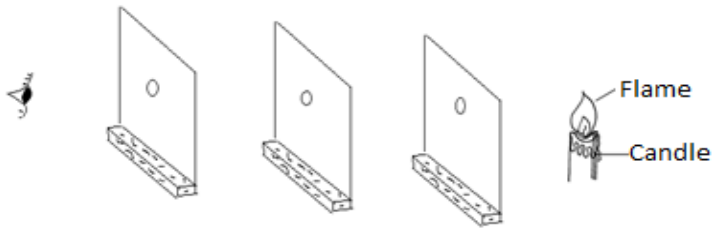


Figure 16

(i) State the aim of the experiment. **(1mk)**

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(ii) If one of the cards was displaced slightly to the left, state what would be observed. **(1mk)**

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17.a.) Figure 17 shows two insulated and uncharged metal spheres X and Y in contact. A positively charged rod is held near X and then the spheres are moved apart.

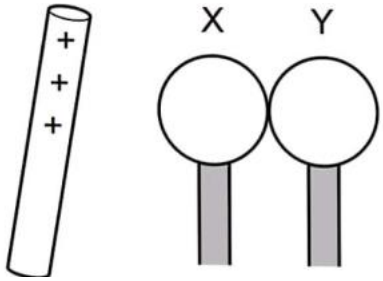


Figure 17

i. In the space provided on the right side of figure 2, draw diagrams to show the charge on X and Y. **(2mks)**

ii. Identify the method of charging used in figure 17 above**.** **(1mk)**

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b.) A car battery requires topping up with distilled water occasionally.

(i) State why topping up is necessary**.** **(1mk)**

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(ii) State why distilled water is used. **(1mk)**

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(iii) Give one advantage of alkaline battery over lead acid accumulator. **(1mk).**

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c.) Calculate the amount of charge passing through a point in a circuit if a current of **5A** flows for **1.5** minutes. **(3Mks)**

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d.) Give a reason why it is not advisable to smoke a cigarette near a charging battery. **(1mk)**

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18.a.) State two properties of magnets. **(2mks)**

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b.) Given a bar magnet, a steel bar and a string describe a simple experiment to distinguish between the magnet and the steel bar. **(3mks)**

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c.) Figure 18 shows a magnetic material being magnetized

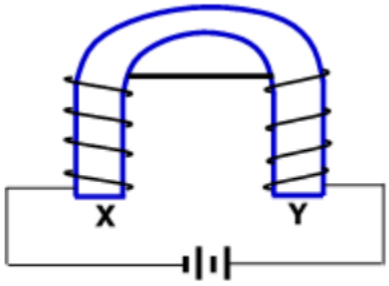


Figure 18

Identify the polarities of X and Y. **(2mks)**

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d.) The figure below shows two pins hanging from a magnet. Explain why they do not hang vertically downwards. **(2mks)**

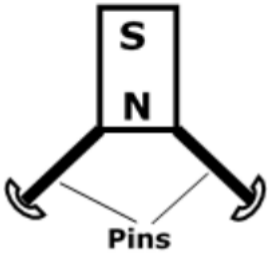


Figure 19

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e.) Figure 20 shows a graph of magnetization against magnetizing current for two materials A and B

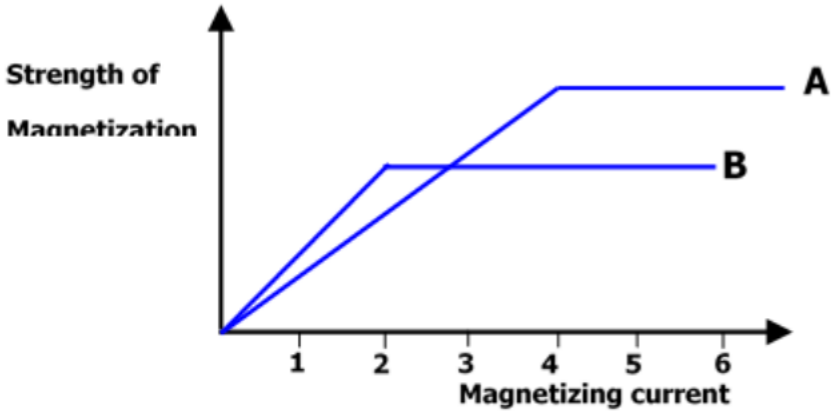


Figure 20

I. State with a reason, the material which is more suitable for use in a transformer to concentrate the magnetic fields**.** **(2mks)**

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#END#

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