

FORM ONE EXAMS

FOR THE ANSWERS

CONTACT MR ORIOSA

0743241064

BUSINESS STUDIES FORM ONE
END OF TERM 3 EXAMS

NAME.....ADM.NO.....CLASS.....

INSTRUCTIONS TO CANDIDATES

1. *Write your name, admission number, school and class in the spaces provided*
2. *Sign and write the date of the examination in the spaces provided above*
3. *Answer all questions*
4. *All answers must be written in the space provided in this booklet*

For Examiner's Use Only

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

Question	14	15	16	17	18	19	20	21	22	23	24	25	26
Marks													

1. Goods are used in satisfaction of human wants. Outline **FOUR** features of goods.(4mks)

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2. Identify **FOUR** benefits of indirect production.(4 mks)

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3. State the factors of production represented by each of the following resources. (4 mks)

Resource	Factor
(a) Land	
(b) Fertilizer	
(c) Farmer	
(d) Tractor	

4. Highlight **FOUR** characteristics of basic wants.(4 mks)

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5. Identify the utility created when the following activities are carried out.(4 mks)

Activity	Utility
(a) A farmer transporting maize to the market.	

(b) A farmer keeping harvested maize in the family granary.	
(c) The maize grains is ground into flour in the posho mill.	
(d) the farmer sells the maize to the neighbouring school.	

6. Highlight any **FOUR** problems faced by human beings in the process of satisfaction of human wants. (4 mks)

7. State the function of each of the following documents as used in home trade.(4 mks)

Document	Function
(a) Proforma invoice	
(b) Advice Note	
(c) Credit Note	
(d) Order	

8. Jane has completed her secondary school studies. She wishes to engage in a small-scale retail business in her locality. Highlight **FOUR** types of business she can start.(4 mks)

9. Identify **THREE** parties to a cheque that makes it valid.(3mks)

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10. Highlight **FOUR** characteristics of road side traders.(4 mks)

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11. Outline **FOUR** factors that discourage entrepreneurial development in an economy.(4 mks)

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12. State **FOUR** qualities that Nyakundi should possess in order to work effectively in an office.(4 mks)

13. Wanjohi Stores were paid for their deliveries through cheque. However the cheque was dishonoured. Give **FOUR** possible reasons that could have led to this.(4 mks)

14. Identify the type of goods described by the following statements given in the table below.(4 mks)

Statement	Type of good
(a) Used to create other goods.	
(b) Require further processing in order to have utility.	
(c) Government is obligated to provide them to her citizens.	
(d) Have utility but no monetary value.	

15. The following statements refer to different office layouts. Identify the types of office layout explained in the following statements.(3mks)

Statement	Office layout
(a) All staff members operate from the same room.	
(b) Senior managers are assigned separate rooms from where they coordinate activities.	
(c) High class office assigned to enhancing the image of the organization.	

16. Outline **FOUR** features of Mail Order business.(4 mks)

17. Highlight **four** ways through which an entrepreneur may generate business ideas.(4 mks)

18. State **four** functions of an office.(4 mks)

19. Highlight **FOUR** external factors that may positively influence the operations of a business.(4 mks)

20. Outline **FOUR** advantages of an enclosed office layout.(4 mks)

21. Identify the type of wholesalers described in the statements given below.(4 mks)

Description	Wholesaler
(a) Deal in a wide range of products but within one line.	
(b) Sells particular products to other specialized wholesalers	
(c) Use vehicles to go round selling goods to trades.	
(d) Sell their products to certain parts of the country only.	

22. Explain the meaning of the following terms as used in wholesale trade.(4 mks)

(a) Breaking Bulk. -----

(b) Packing. -----

(c) Blending. -----

(d) Branding.-----

23. State **FOUR** characteristics of chain stores (4marks)

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24. List **FOUR** components of business studies. (4 marks)

25. State **THREE** importance of trade to a country.

(3mks)

26. State **THREE** categories of labour.

(3 mks)

END

Name..... Adm No.....
Class.....

Student's Signature..... Date
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FORM 2
233
CHEMISTRY

2 Hours

TERM 3 2021 CHEMISTRY
THEORY
2 HOURS

Instructions to students

- Write your name and admission number in the spaces provided above.
- Sign and write the date of examination in the spaces provided above.
- Answer **all** the questions in the spaces provided.
- KNEC mathematical tables and silent non-programmable electronic calculators may be used for calculations.
- All working **MUST** be clearly shown where necessary.
- *This paper consists of 11 printed pages.*
- *Students should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.*
- *Students should answer the questions in English.*

FOR EXAMINER'S USE ONLY

QUESTIONS	MAXIMUM SCORE	STUDENT'S SCORE
1 - 17	80	

1. Name a method that can be used to separate each of the following substances.

(3mks)

- a) A mixture of petrol and diesel.

- b) Kerosene and water.

- c) Food coloring ingredients in a sauce.

2. The table below shows the formulae of elements P, Q, R and S (not actual symbols) and their chlorides.

Elements	P	Q	R	S
Formulae of chlorides	PCl	QCl ₂	RCl ₃	SCl ₅

- a) State the group in which element Q belongs.

(1mrk)

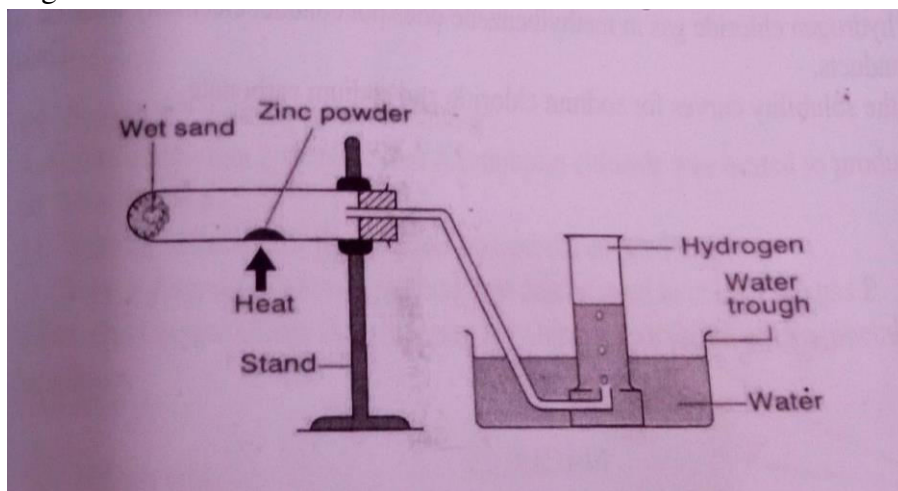
- b) Identify one element which is a non-metal.

(1mk)

- c) Write down the formulae of P oxide.

(1mk)

3. Hydrogen can be prepared by passing steam over heated Zinc powder as shown in the diagram



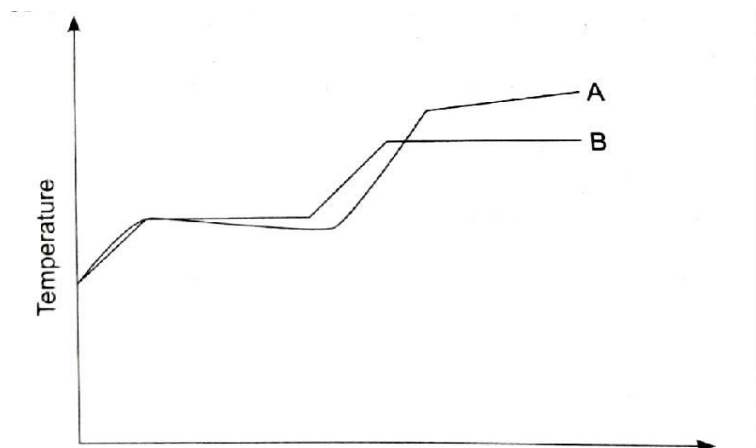
- a) Write down the chemical reaction that produces hydrogen gas. (1mrk)

- b) Explain why hydrogen should be burned if not collected over water. (1mrk)

- c) Give another metal that can be used instead of Zinc. (1mrk)

4. A piece of sodium metal was placed in a trough half filled with cold water. State the observations that were made. (3mrks)

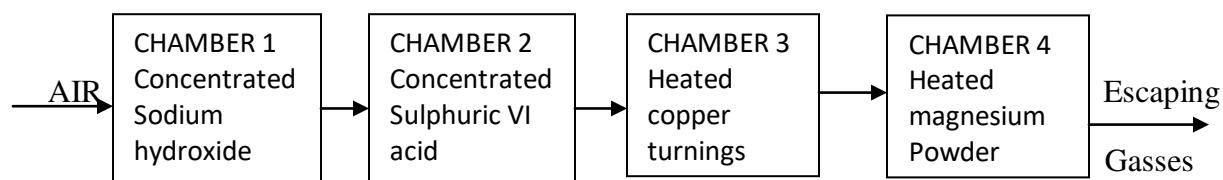
5. The curves below represents the variation of temperature with time when pure and impure samples of a solid were heated separately.



- i. Which curve shows the variation in temperature of the pure solid. Explain (2Mrks)

- ii. State the effect of impurities in the melting and boiling points of a pure substance. (2Mrks)

6. Air was passed through several reagents as shown below;



- a.) Name the main inactive component of air (1mk)
- b.) Name the components of air that are removed in the following chambers

i. Chamber 1

ii. Chamber 3

iii. Chamber 4

c.) What is the purpose of passing air through concentrated Sulphuric (VI) acid? (1mk)

d.) Write a chemical equation for the reaction which takes place in

i. Chamber 1

ii. Chamber 4

e.) Explain the observation made in chamber 3 during the reaction.

(2mrks)

f.)Name one gas which escapes from the scheme above.

(1mrk)

7.a) Distinguish between hygroscopy and efflorescence.

(2mrks)

b.)Starting with lead (II) oxide describe how you would prepare Lead (II) sulphate

(3mrks)

8.a) discuss the criteria for testing purity of water.

(2mrks)

b.) write the word equations for the reaction between dilute hydrochloric acid and the following.

(i) magnesium oxide

(ii) calcium hydrogen carbonate

(ii) zinc metal

(iv) potassium hydroxide

(4mrks)

9. a) Using dots and crosses to represent electrons, draw a diagram to show bonding in Sodium Chloride(NaCl)

(2mrks)

b.) name and draw two apparatus used in measuring exact volumes of solutions in the laboratory

(2mrks)

10. Both ions Y^{2-} and Z^{2+} have an electron configuration of 2.8.8

a.) Write the electron arrangement for

(2mrks)

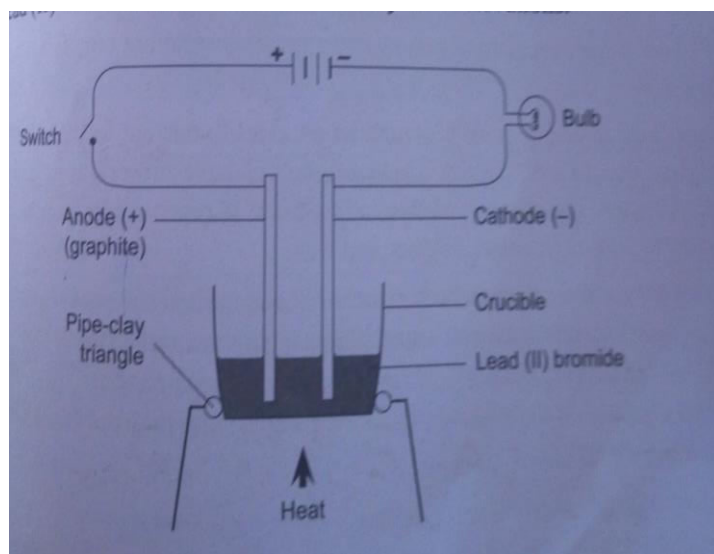
Y

Z

b.) What is the mass number of atom Z given that it has 20 neutrons

(1mrk)

11. The diagram on the next page shows a set up which was used by a student to investigate the effect of electricity on molten Lead (II) Bromide.



a.) Explain the observation at the cathode

(2mrks)

b.) Why does solid lead (II) Bromide not allow the passage of electricity

(2mrks)

c.) Write equations to show the reactions taking place

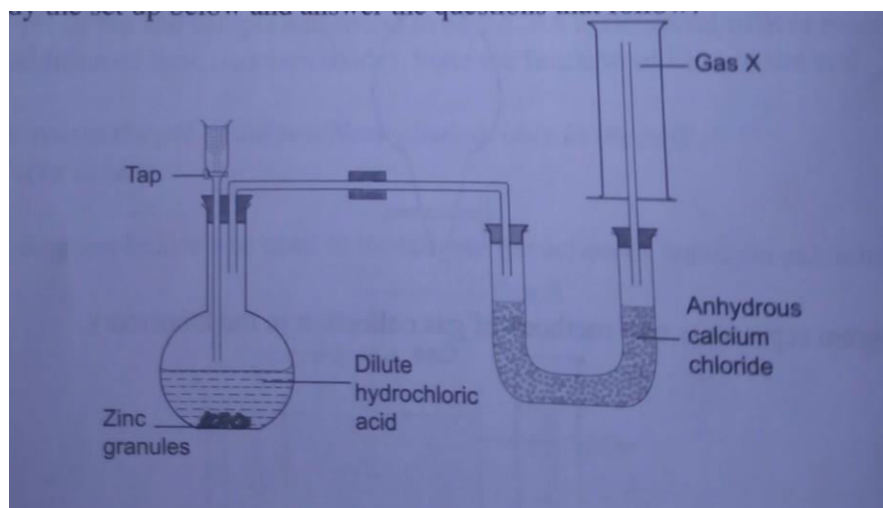
i. At the cathode

(1mrk)

ii. At the anode

(1mrk)

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



a.) Identify gas X (1mrk)

b.) Write a chemical equation for the reaction liberating gas X (1mrk)

c.) Why is it not advisable to use calcium in this method of preparing gas X? (2mrks)

d.) Give the use of anhydrous calcium chloride in the U-tube

(1mrk)

e.) Name another substance that could serve the same purpose as anhydrous calcium chloride
(1mrk)

f.) Name the method used to collect gas X

(1mrk)

13. The grid below shows part of the periodic table. Use it to answer the questions that follow.

						S	U	V
P	R		X			T		W
Q								

a.) Which of the elements has the largest atomic radius? Explain

(2mrks)

b.) Identify the most reactive metal. Explain

(2mrks)

c.) Name the chemical family to which P and Q belong. (1mrk)

d.) Compare the atomic radius of S and U. Explain

(2mrks)

e.) Select an element that does not form an ion. Explain

(2mrks)

f.) Give the formula of one stable cation with an electron arrangement of 2.8.8 (1mrk)

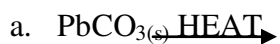
14.a) Define the term isotope (1mrk)

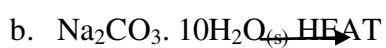
b.) Chlorine gas has a relative atomic mass of 35.5. It is made up of two isotopes $^{35}_{17}\text{Cl}$ and $^{37}_{17}\text{Cl}$. Determine the relative abundance of each isotope in the chlorine gas.

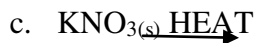
(3mrks)

15. Write a balanced equation for the decomposition of the following solids

(3mrks)







16. Though Sodium and aluminium are in the same period and are both metals, aluminium is a better conductor of electricity. Explain

(2mrks)

17.(a) List any three uses of oxygen gas`

(3mrks)

(b) State the conditions necessary for rusting.

(2Mrks)

NAME.....ADM NO.....

DATE.....CLASS.....

CRE

FORM 1

TERM 3

YEAR 2021

TIME:2 HOURS

INSTRUCTIONS

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

1. Name the first five books of the Bible (5mks)

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2. What was the importance of the promises made to Abraham (5mks)

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3. Define the term “**covenant**” and its characteristics (5mks)

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4. What was the importance of circumcision to Abraham and his descendants (5mks)

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5. What do we learn about the nature of God from the renewal of the covenant. (5mks)

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6. List the first five commandments God gave to Moses. (5mks)

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7. Why was Moses a suitable leader for the Israelites (5mks)

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8. What qualities of Moses should a modern Christian leader emulate. (5mks)

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9. State five attributes of God as understood by the Israelites during the Exodus. (5mks)

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10. State 5 lessons learnt from King Saul’s failure (5mks)

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11. Outline five achievements of King David (5mks)

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12. State five of qualities of a good leader drawn from king David. (5mks)

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13. List five forms of idolatry in modern society (5mks)

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14. Outline five characteristics of Elijah that a modern day Christian leader should strive to emulate (5mks)

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15. What five lessons do we learn about the nature of God from the contest at Mount Carmel. (5mks)

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16. With reference to African communities state how God is understood. (5mks)

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17. Describe the African understanding of the hierarchy of beings. (5mks)

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18. State five roles of spirits in tradition African communities. (5mks)

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19. Describe the various components of life in tradition African communities. (5mks)

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20. Identify five religious specialists in traditional African communities. (5mks)

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NAME_____ **ADM**_____

CLASS_____

GEOGRAPHY

FORM 1

TERM 3

YEAR 2021

TIME: 2 ½ hours

INSTRUCTIONS

1. Write your name and admission number in the spaces provided above.
2. Answer all the questions in the spaces provided.

1. a) Mention two areas studied in practical geography. (2mks)

- b) Name two areas of interest in physical geography. (2mks)

c) State three significance of learning geography. (3mks)

2. a) What is the solar system? (2mks)

b) Name two forces responsible for the spherical shape of the earth. (2mks)

c) Give three reasons why interior part of the earth is very hot. (3mks)

3. a) Distinguish between absolute humidity and relative humidity. (2mks)

b) State three conditions necessary for the formation of dew. (3mks)

4. a) Differentiate between rocks and minerals. (2mks)

b) Give three ways in which rocks can be classified. (3mks)

c) Distinguish between the following types of rocks; (6mks)

i. igneous plutonic rocks

ii. volcanic rocks

iii. hypabyssal rocks

d) Selected students from Henrok schools carried out a field study on rocks in their county.

i. State three reasons why it would be necessary for them to conduct a reconnaissance to the study area. (3mks)

ii. Give two methods used to record data. (2mks)

iii. State three importance of rocks identified. (3mks)

5. a) What is a weather station? (2mks)

b) Name all the instruments stored in a Stevenson screen. (4mks)

c) Using a well labelled diagram, explain how a minimum thermometer works. (6mks)

d) The methods of weather forecasting can broadly be categorized into three; name them. (3mks)

6. Study the table below and answer the questions that follows.

Month	J	F	M	A	M	J	J	A	S	O	N	D
Temperature °c	29	28	30	30	29	29	29	27	29	30	30	30
Rainfall in mm	10	9	22	48	26	9	24	10	5	10	18	11

- a. i) Using a scale of 1cm represents 5°c, construct a simple line graph to represent the information on the temperature and the months. (8mks)
 ii) Give two disadvantages of using a simple line graph to represent data. (2mks)

- b. i) Calculate the mean annual rainfall. (2mks)

- ii) Calculate the median rainfall from the set of data above. (2mks)

- iii) What is the annual range of temperature? (1mks)
7. a) Define the term mining. (2mks)
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- b) Mineral ores occur in four main formations, name any three. (2mks)
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- c) Name the three methods of mining. (3mks)
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- d) Explain any two problems facing mining industry in Kenya. (4mks)
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8. a) Name two types of field work. (2mks)
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- b) Outline three importance of field work. (3mks)
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- c) State two characteristics of a good hypothesis. (2mks)

d) Give three importance of a working schedule before carrying. (3mks)

9. a) Differentiate between discrete data and continuous data giving an example in each.
(4mks) (definition 1 mark, example 1 mark)
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b) Outline two factors to consider when preparing a questionnaire. (2mks)

c) Name any two types of sampling. (2mks)

d) State two advantages of experimentation. (2mks)

NAME..... ADM NO.....

CLASS.....

**HISTORY AND GOVERNMENT
FORM 1 TERM 3 YEAR 2021**

TIME:

INSTRUCTIONS TO CANDIDATES

- *Write your name and class in the spaces provided above.*
- *Answer ALL questions in the spaces provided.*

SECTION A

1. Define the term “History” (1 mk)
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2. Identify the **two** basic periods in history (2 mks)
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3. Identify **three** disadvantages of Anthropology as a source of history (3 mks)
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4. State **two** archeological sites in Tanzania (2 mks)
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5. Give **three** reasons why Africa is considered the cradle of man (3 mks)
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6. Write **two** features of Homo Sapiens Sapiens (2 mks)
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7. Identify the type of tools used by early man in the Neolithic period (1 mk)
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8. Name **two** methods of irrigation used during early Agriculture in Egypt (2 mks)
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9. State **three** characteristics of Agriculture in Europe before the Agrarian Revolution (3 mks)
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10. Identify **three** ways through which the Homestead Act of 1862 contributed to the Agrarian revolution in the U.S.A (3 mks)

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11. State **five** social effects of food shortages in Africa and the Rest of the Third World (5 mks)

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12. Identify **two** environmental factors that caused the migration and settlement of most communities in pre-colonial Kenya (2 mks)

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13. Name the original homeland of the Luo in Southern Sudan (1 mk)

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14. Identify **three** communities in Kenya who belong to the Western Bantu (3 mks)

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15. Identify **three** age grades for elders among the Akamba (3 mks)

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16. State **two** functions of the Laibon among Maasai during the Pre-colonial period in Kenya (2 mks)

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17. Identify **four** duties of the “Ruoth” among the Luo (4 mks)

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18. State **five** sources of information about contacts between East Africa Coast and the outside world (5 mks)

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19. Identify **three** factors that facilitated the coming of the early visitors (3 mks)

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20. State **four** reasons why Seyyid Said transferred his capital to Zanzibar in 1846 (4 mks)

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21. State **four** factors that facilitated the spread of Christianity in Kenya (4 mks)

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22. Name **three** early mission stations in Kenya (2 mks)

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SECTION B

23. a) State **three** factors that led to the increased demand for slaves along the East African Coast (3 mks)

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- b) State **six** negative results of the Portuguese rule at the East Coast of Africa (6 mks)

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- c) Describe the social organization of the Maasai Community during the pre-colonial period (6 mks)

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24. a) Identify **five** social responsibilities of a Kenyan Citizen (5 mks)

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b) Describe **five** circumstances in which one's right to life may be taken away (5 mks)

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25. a) State **three** reasons why National Integration is important (3 mks)

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b) Explain **six** methods of resolving conflicts (12 mks)

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[illegible]

JINANAMBA YA KUSAJILIWA.....

JINA LA SHULEDARASA.....

**KISWAHILI
KIDATO CHA KWANZA
Saa 2 ½**

MAAGIZO

- Andika jina na namba yako katika nafasi ulizoachiwa hapo juu
- Jibu maswali yote. Majibu yako yaandikwe katika nafasi zilizoachwa wazi katika kijitabu hiki cha maswali.

Swali	Upeo	Alama
Insha	20	
Ufahamu	20	
Matumizi ya lugha	35	
Isimu jamii	10	
Fasihi	15	
	100	
	Jumla	

SEHEMU YA A: INSHA ALAMA 20

Andika insha itakayoanza kwa:

Tuliamka asubuhi ya majogoo tayari kwa safari tuliyoingojea kwa siku nyingi...

SEHEMU YA B : UFAHAMU B ALAMA 20

Mavazi Rekebisheni

Vazi jema kivaliwa, huongeza heshima,
Staha mtu kapewa, pote endapo daima,
Mavazi duni si sawa, kina dada ninasema,
Mavazi rekebisheni, usherati umezidi.

Longi kwa nyuma kushika, na mapajani kubana,
Chupi zilipowafika, dhahiri kuonekana,
Bure munaabikia, na kujishusha maana,
Mavazi rekebisheni, usherati umezidi.

Kifuani kujikaza, maziwa yaning'inie,
Kitu gani munawaza, hamna habari nyie,
Ni ashiki mwasambaza, sikizeni niwambie,
Mavazi rekebisheni, usherati umezidi.

Msichana ni hatia, magotini kufichuka,
Hivyo basi kuvalia, rinda lisoyafunika,
Huenda zusha hisia, maovu yakawafika,
Mavazi rekebisheni, usherati umezidi.

Kuwa wazi kinenani, hupendeza Baniani,
Kwao mila ya zamani, si kujitakia shani,
Weusi twatafutani, kuiga za Ulayani,
Mavazi rekebisheni, usherati umezidi.

Sitakosa kuzitaja, skati mnazovaa,
Zaisha kwa mapaja, kikiri kuchuchumaa,
Iko wazi nyonga moja, mkato ulivyokaa,
Mavazi rekebisheni, usherati umezidi.

Wazi nitawasomea, nguo hizi nguo gani ?
Dada zetu mwakosea, kuzivaa hadharani,
Ndizo hizo huchochea, usherati mitaani,
Mavazi rekebisheni, usherati umezidi.

Nguo chini zishusheni, mwilini mzipanue,
Heri kuingia deni, za heshima mnunue,
Kuigiza za kigeni, ni utumwa mtambue
Mavazi rekebisheni, usherati umezidi.

Beti tisa namaliza, kalamu naweka chini,
Iwapo wajiuliza, nakereketwa ni nini ?
Ni staha nahimiza, sio wake kuhaini,
Mavazi rekebisheni, usherati umezidi.

- a) Shairi hili ni la aina gani? (alama 1)
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- b) Shairi hili lina beti ngapi? (alama 1)
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- c) Eleza vina vya ubeti wa kwanza . (alama 1)
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- d) Shairi hili lina kibwagizo au kimalizio? Kwa nini ? (alama 1)
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- e) Taja tatu nne za mavazi ambazo msanii ana kashifu. (alama 3)
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- f) Kwa kuzingatia maudhui ya shairi hili , fafaua methali : (alama 2)
Chema chajiua, kibaya chajitembeza.
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- g) Eleza umbo la shairi. (alama 4)
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- h) Eleza maana ya maneno yafuatayo kama yalivyotumika katika shairi. (alama 3)
- i) staha-----
- ii) ashiki-----
- iii) twatafutani-----

MATUMIZI YA LUGHA C: (alama 35)

- a) Toa tatu mbili za irabu i (al3)

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- b) Taja sauti mbili ambazo ni vipasuo vya ufizi (a12)
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- c) Eleza maana ya silabi kwa kutolea mfano (a12)
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- d) Maneno yafuatayo yana silabi ngapi? (A12)
- i. Maktaba
- ii. Mwanafunzi
- e) Unda neno moja lenye sauti mwambatano (a11)
-
- f) Andika sentensi zifuatazo bila ya kutumia kirejeshi amba---- (a12)
- Fulana ambayo imefumwa ni nyekundu
-
-
- g) Tunga sentensi mbili kudhihirisha tofauti kati ya: (a14)
- i. Tata.....
- ii. Dada.....
- h) Taja vipashio vine vya lugha. (a14)
-
-
-
-
- i) Andika sentensi hii katika ukubwa wingi (a12)
- Mtu mrefu alianguka pu!
-
-
-
- j) Bainisha maneno katika sentensi ifuatayo. (a13)
- Mzazi ataenda mjini.
-
-
-
- k) Ainisha viambishi katika sentensi. (a12)
- Nilikimbia
-
-

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.....
l) Toa matumizi mawili ya mkwaju (/). (al2)

.....
.....
m) Weka maneno yafuatayo katika ngeli zao. (al 3)

i. Mbuyu.....

ii. Kifaru.....

iii. Chai.....

n) Sahihisha sentensi ifuatazo. (al1)

Huko ndimo alimopatikana.

.....
.....
o) Geuza sentensi ifuatayo iwe katika wakati ujao. (al1)

Mimi ninapenda mtoto mtiifu

.....
p) Andika wingi wa: (al2)

Mtoto ataenda shuleni.

.....
q) Kanusha (al1)

Nitaruka kamba.

.....
r) Panga maneno haya ili kupata sentensi sahihi (al 2)
Mbegu mkulima nyingi amepanda.

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.....
SEHEMU D:ISIMUJAMIL. [ALAMA 10]

a) Eleza maana ya sajili ya lugha. [alama 2]

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.....
b) Taja mambo manne yanayosababisha kuibuka kwa sajili tofauti. [alama 4]

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.....
c) Huko ukitoa mifano eleza sifa nne za sajili ya sokoni.

(alama 4)

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SEHEMU YA E: FASIHI ALAMA 15

a) Fafanua aina mbili za fasihi (alama 2)

b) Eleza sifa nne za mtambaji bora (alama 4)

c) Eleza aina mbili za ngano

(alama 2)

d) Taja sifa tatu za fasihi simulizi

(alama 4)

e) Fafanua aina tatu ya wahusika katika fasihi simulizi. (alama 3)

NAME:.....**ADM NO:**.....

CLASS:.....**DATE:**.....

MATHEMATICS (FORM ONE)

TIME: 2 ½ HOURS

FORM ONE TERM 3 2021

INSTRUCTIONS TO STUDENTS

- a) Write your name and admission number in the spaces provided on top of this page.
- b) All answers and workings must be written on the question paper in the spaces provided below each question
- c) Show all step in your calculation , giving your answers at each stage in the spaces provided below each question
- d) Marks may be given for correct working even if the answer is wrong
- e) Electronic calculators and mathematical tables may be used except where stated otherwise
- f) Take $\pi = \frac{22}{7}$

FOR EXAMINERS USE ONLY:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

GRAND TOTAL

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SECTION 1(50MKS)

1. Evaluate without using a calculator.

$$\frac{4 \text{ of } 20 + 10 \div -5 \times 6}{6 \times 9 - 4 \div 2 + 12}$$

(3mks)

2.
$$\frac{0.24 + (-0.3 \times -0.81)}{0.08 \div 0.4}$$

(3mks)

3. a) Find the H.C.F of 36 and 54

(1mk)

- b) If three numbers 36, 54 and another number have a G.C.D of 6 and L.C.M of 216, find the other number

(2mks)

4. a) Simplify the expression

(3mks)

$$\frac{3x + 4}{4} + \frac{x + 1}{2} - \frac{2x + 8}{3}$$

b) Solve for x in the equation below.

$$2(x+4)=14$$

(2mks)

5. Use a number line to work out the following:

i) $3 + -4$

(1mk)

ii) $5 - -2$

(1mk)

6. The length of an arc of a circle is 88cm. Find the radius of the circle if the arc subtends an angle 144° at the centre (Take $\pi = 22/7$) (3mks)

7. Four men can build a stone wall 32m long in 12 days . What length of wall can eight men, working at the same rate , build in eight days. Give your answer to 4 significant figures (3mks)
8. A shopkeeper made a loss of 20% by selling a trouser at Sh. 960 . What profit would he have made if he had sold it at sh.1500 (3mks)
9. A girl spent $\frac{2}{5}$ of her pocket money on bread and $\frac{1}{6}$ of the remainder on stationery. If she had Ksh. 200 left at the end of the term, how much pocket money did she have at the beginning of the term. (3mks)

10. Small cubes of of edge 2cm are to be packed into a rectangular container measuring 6 cm by 5 m and 4 m. How many cubes are required ? (3 mks)
11. If $a:b=2:3$ and $b:c=5:9$, find the ratio $a:c$ (2mks)
12. Express $0.\dot{4}0\dot{7}$ as a fraction. (3mks)
13. Three bells ring at intervals ring at intervals of 40 minutes, 45 minutes and 60 minutes. If they ring simultaneously at 6.30 am, at what time will they ring next together? (3mks)
14. The area of 10 square plots is 160 ares. Find the length in metres of the side of each plot (3mks)

15. Find the perimeter of a circular protractor whose radius is 14 cm
(3mks)

16. Convert the following decimals into percentage (3 mks)

(i) 0.67

(ii) 1.25

(iii) 0.167

ANSWER ALL THE QUESTIONS IN THIS SECTION

SECTION II (50MKS)

17. (a) A cylindrical can of diameter 20 cm and height 60 cm is filled with water using a cylindrical jar of diameter 10 cm and height 8 cm. How many jarfuls will fill the can? (5 mks)

(b) Find the surface area of an isosceles triangular prism of length 25 cm, height 4.5 cm and base 6 cm (5 mks)

18. (a) Find the area of the sector of a circle of radius 3 cm if the angle subtended at the centre is 140° . (Take $\pi = \frac{22}{7}$) (4 mks)

(b) A minor arc of a circle subtends an angle of 105° at the centre of the circle. If the radius of the circle is 8.4 cm, find the length of the major arc (3 mks)

(c) Calculate the surface area of a rectangular tank measuring 5.4 cm long, 3.6 cm width and 1.8 cm high. (3 mks)

19. (a) All prime numbers less than ten are arranged in descending order to form a number

(i) Write down the number formed (2 mks)

(ii) State the total value of the second digit in the number formed in a(i) above (2 mks)

(b) The lengths of wires were 30 m, 36 m and 84 m. Pieces of wire of equal length were cut from the three wires. Calculate the least number of pieces obtained. (6 mks)

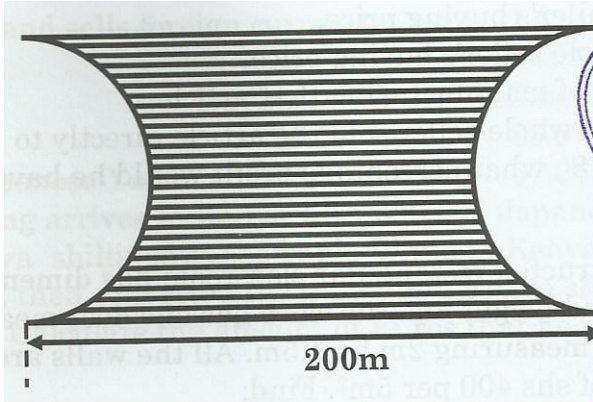
20. (a) When a certain number is divided by 30, 45 or 54 there is always a remainder of 21. Find the number (4 mks)

(b) A square toilet is covered by a number of whole rectangular tiles of sides 60 cm by 48 cm. Calculate the least possible area of the room in square metres (3 mks)

(c)(i) Express 1050 in terms of its prime factors (1 mk)

(ii) Determine the smallest positive number such that $1050P$ is a perfect square (2 mks)

21. The following figure represents a piece of land . The two ends are semicircles of radius 70m each.



a) Calculate

(i) The perimeter of the land

(2mks)

(ii) The area of the land in hectares

(3mks)

b) A private developer bought this piece of land at a price of Ksh 5,000,000 per hectare and later sold the all land at Kshs. 14,760,000. Determine

(i) The price at which he bought the whole piece of land

(2mks)

(ii) His percentage profit

(3mks)

Name.....Adm No.....Class.....

TERM THREE 2019

PHYSICS FORM ONE

TIME: 2 HOURS

Instructions

Answer all the questions in the spaces provided

Where necessary take:

- *Earth's gravitational intensity = 10N/kg*
- *Density of water = 1000kg/m^3*

Answer all the questions

1) (i) Define length

(1mk)

(ii) Outline three steps that you should follow when measuring length using a metre rule

(3mks)

2) (i) What is a basic quantity?

(1mk)

(ii) State two examples of a basic quantity and their SI units

(2mks)

3) A plot of land is represented on a map by an area of 48.5cm^2 . If the scale on the map is 1:5000, determine the actual area of the land in square metres

(3mks)

4) When a narrow tube is dipped in a beaker containing water, the water rises up the tube.

a) What is the name given to this effect?

(1mk)

b) Explain the observation (1mk)

5) State the two factors affecting the surface tension of a liquid. (2mks)

6) The atmospheric pressure at a place was measured as 740mm of mercury. Calculate the pressure at the place in Pascals. (density of mercury is 13.6g/cm^3) (3mks)

7) Explain how a drinking straw works when used to drink a liquid. (2mks)

8) State the kinetic theory of matter. (1mk)

9) (a) In the smoke cell experiment, the smoke is observed to be in a random motion. Explain the cause of the motion (1mk)

(b) State and explain the effect on the motion when the temperature of the smoke cell is increased
(2mks)

10) (i) What is diffusion? (1mk)

(ii) State the factors affecting the rate of diffusion of a gas (2mks)

11) State any three differences between mass and weight (3mks)

12) An object has a mass of 120g. what is the weight of the object at the moon surface? (gravitational intensity of the moon is a third that of the earth) (2mks)

13) The water level in a burette is 40.6cm³. 50 drops of water each of volume 0.2cm³ are added to the water in the burette. What is the final reading of the burette? (3mks)

- 14) On the axis provided, sketch a graph of volume against temperature of water from 0° to 20°C .
(2mks)

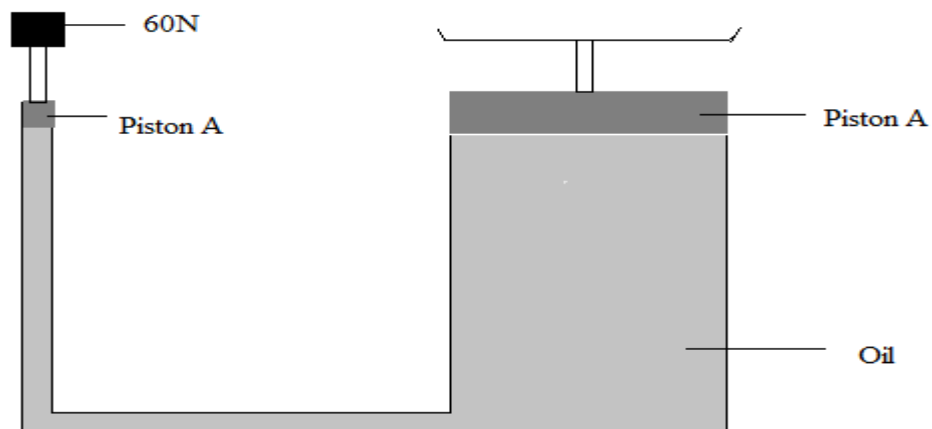


- 15) It is easier to detect a bad smell from a gaseous substance than a solid substance. Explain
(1mk)

- 16) a) Define pressure (1 mark)

- b) (i) State Pascal's principal. (1 mark)

(ii) The figure below represents a section of a hydraulic machine. The area of Pistons A and B are 0.03m^2 and 0.5m respectively. A force of 60N is applied on the piston.



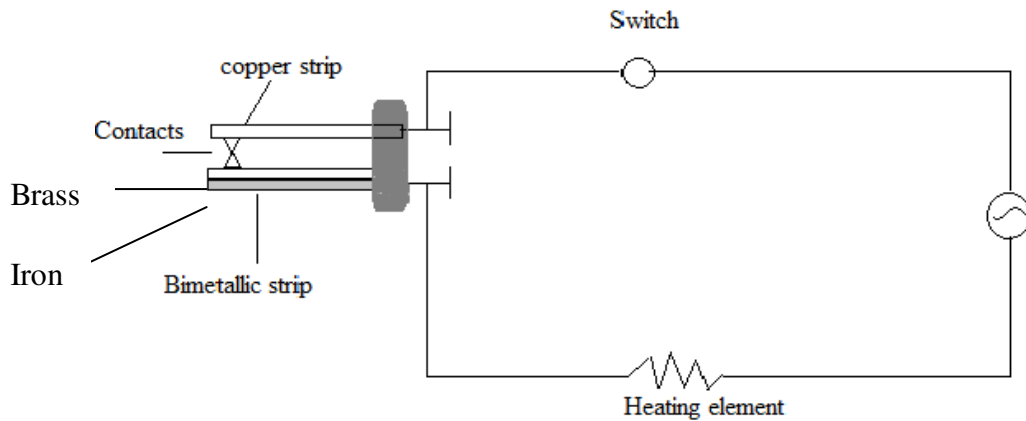
Determine the:

I. Pressure exerted on oil by piston A (2mks)

II. Maximum force that can be lifted by the system (2mks)

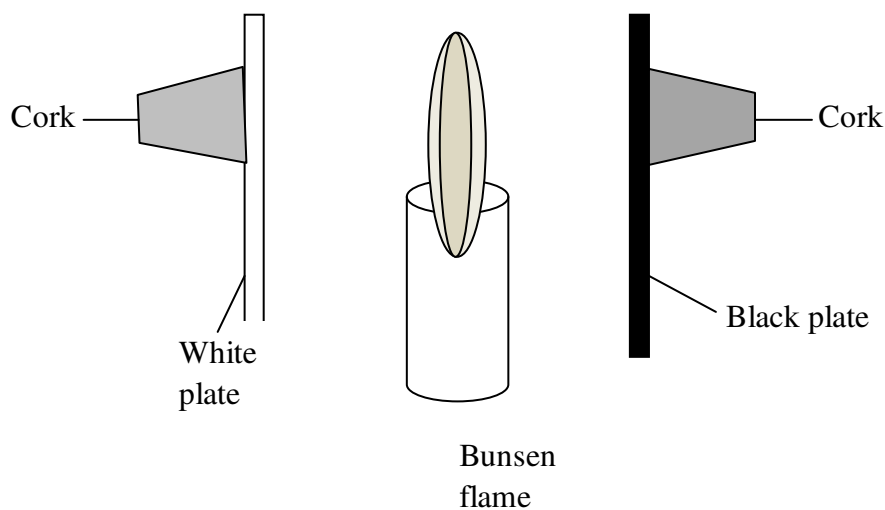
(iii) Give two reasons why oil and NOT water is selected for use in the system in (ii) above (2mks)

17) The figure below shows a circuit diagram of a device for controlling the temperature in a room.



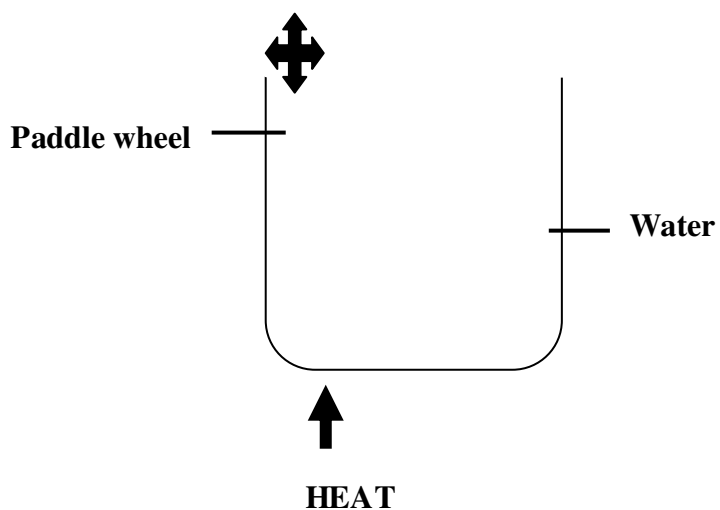
- i) Explain the purpose of the bimetallic strip. (2 marks)
- ii) Describe how the circuit controls the temperature when the switch is closed. (3 marks)

18) (a) The figure below shows two identical copper plates one painted black and the other is white. The corks are stuck to the plates using some wax and a Bunsen flame is placed equidistant from the two plates.



Which cork is likely to fall off first from the plate? Give reason for your answer (2mks)

(b) The figure below shows a paddle wheel placed in a beaker containing water. When the water is heated at the point indicated, the wheel rotates.



i. Explain why the wheel rotates (2mks)

ii. State the direction in which it rotates (1mk)

(c) A vacuum flask is designed to keep a liquid hot for a long time. Explain how heat losses are reduced in a vacuum flask (3mks)

19) (a) Define density (1mk)

(b) A solid block measures 25cm by 10cm by 8cm. if the block has a mass of 3.2kg, calculate:

i) The volume of the block (2mks)

ii) The density of the block expressed in SI units (3mks)

(c) The mass of an empty density bottle together with its stopper is 24.8g. The bottle weighs 49.8g when filled with water. When the bottle is emptied and filled with another liquid, it weighs 48.8g. Determine the density of the liquid. (3mks)

20) (a) What is a thermometric liquid? (1mk)

(b) State any three qualities of a good thermometric liquid (3mks)

(c) Give any two advantages that mercury has over alcohol as a thermometric liquid (2mks)

(d) Explain how each of the following can be increased in a liquid-in-glass thermometer:

(i) Sensitivity (1mk)

(ii) Accuracy (1mk)

21) (a) State the laws of reflection (2mks)

(b) Two plane mirrors are inclined at an angle of 60° . How many images do the mirrors form? (2mks)

(c) State one application of a plane mirror (1mk)

NAME: ADM NO: CLASS:

443/1

AGRICULTURE

PAPER 1

FORM 3

END OF TERM 2 EXAM

TIME: 2 HOURS

INSTRUCTIONS:

This paper consists of 3 sections; A, B and C. Answer all questions in section A and B and any two in section C.

SECTION A 30MKS

1. Name three branches of horticulture. (1 ½ mks)

2. State four advantages of organic farming. (2mks)

3. What is the importance of decomposers in agriculture. (1 mk)

4. State three basic economic concepts. (1 ½ mks)

5. (a) What is concession company? (½ mk)

(b) Give two examples of individual land tenure system. (1 mk)

6. (a) Differentiate between solifluction and landslide. (2 mks)

(b) Name four types of landslide.

(2 mks)

7. Give three control measures of Blossom-end rot disease.

(1 ½ mks)

8. How are crop pests classified according to the mode of feeding.

(2 mks)

9. State any three effects of diseases to crops.

(1 ½ mks)

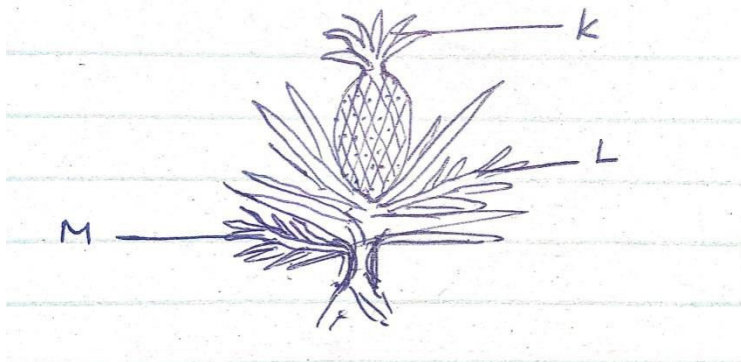
10. a. State six effects of weeds in a pasture crop.

(3 mks)

- b. Define a weed. (½ mk)
11. List two ways of classifying herbicides based on mode of action. (1 mk)
12. State four factors considered when grading tomatoes for fresh market. (2 mks)
13. Give possible causes of swelling on roots of legumes. (1 mk)
14. What is a companion crop? (1 mk)
15. List two main methods of pruning. (2 mks)
16. State two functions of polythene sheet when used as mulch material. (1 mk)
17. Give any four factors that influence seed rates. (2 mks)

SECTION B: (20 MARKS)

18. The diagram below illustrates a crop. Study it and answer the questions that follow.



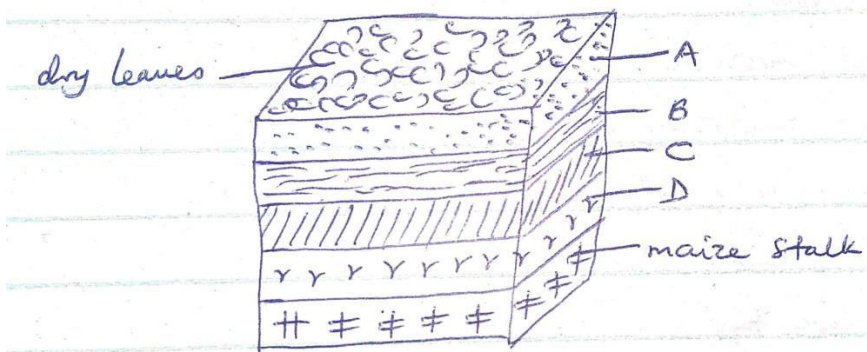
(a) Identify the parts labeled K, L and M.

(3 mks)

(b) Apart from the parts mentioned above, list down five other vegetative materials used for crop propagation.

(2 mks)

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



(i) What are the dimensions of the figure shown above? (1 mk)

(ii) Name the parts labeled A, B, C and D. (2 mks)

(iii) State the importance of level A in this set up. (1 mk)

(iv) State two factors considered when selecting a site for a compost pit. (2 mks)

20. A farmer with one hectare of land requires 40kg of N in his farm. He applied CAN which costs Ksh 35 per kilogram. CAN contain 20kg N.

(a) Calculate the amount of CAN the farmer requires. (2 mks)

(b) How much will a farmer with one and a half hectares spend to apply in his farm? (3 mks)

(c) List five characteristics of nitrogenous fertilizers. (2 ½ mks)

(d) State the two methods employed during soil sampling. (1 mk)

(e) Define soil sampling. (½ mk)

SECTION C: (40 MARKS)

21. (a) Discuss the importance of crop rotation to a farmer. (12 mks)

(b) Discuss the factors that determine harvesting of a crop. (8 mks)

22. (a) Discuss the process of water treatment using a chemical treatment system. (12 mks)

(b) State and explain various methods used during land clearing. (8 mks)

23. (a) Explain various harmful effects of weeds. (10 mks)

(b) State ten cultural methods employed in pest control. (10 mks)

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