FORM 2 MID TERM 3 EXAMS

AMOBI SOFT COPY PUBLISHERS

Transparency, Honesty and Accountability Defined

FORM 2 MID TERM 3 EXAMS

Prefer Calling Sir Obiero Amos @

0706 851 439 for the Marking Scheme

N/B In Response to the Huge Costs Associated in Coming Up with Such/Similar Resources Regulary, We inform us All, MARKING SCHEMES ARE NOT FREE OF CHARGE. However Similar QUESTIONS, Inform of soft Copies, are Absolutely FREE to Anybody/Everybody. Hence NOT FOR SALE

by Amobi Soft Copy Publishers.

NAME: .....

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

AGRICULTURE EXAM
MID-TERM 3 EXAMS
FORM TWO
TIME:

Answer ALL Questions.

1. State four systems of farming. (2mks)

.....

.....

.....

.....

.....

.....

2. State two effects of HIV/AIDS on agricultural production. (2mks)

.....

.....

.....

3. List four physical agents of weathering. (2mks)

.....

.....

.....

.....

.....

4. List four factors influencing soil formation. (2mks)

.....

.....

.....

.....

.....

.....

5. Name two types of water pumps. (2mks)

.....

.....

.....

6. Mention two tertiary operations carried out during land preparation. (1mk)

.....

.....

.....

7. Outline four characteristics of a fertile soil. (2mks)

.....

.....

.....

.....

.....

8. Give two characteristics of plant used for preparing green manure. (2mks)

.....

.....

.....

.....

.....

9. Differentiate between a root stock and a scion as used in grafting. (2mks)

.....

.....

.....

.....

10. Name two forms in which nitrogen is absorbed by plants. (2mks)

.....

.....

.....

11. State two deficiency symptoms of Nitrogen. (2mks)

.....

.....

.....

.....

.....

12. List four examples of phosphatic fertilizers. (2mks)

.....

.....

.....

.....

.....

13. A farmer was asked to apply fertilizers as follow: 200 kg/ha of DSP (40% P_2O_5), 150kg/ha of sulphate of ammonia 20% Nitrogen and 150kg/ha of Muriate of Potash 60% K_2O)

a) How much P_2O_5 did the farmer apply per ha. (2mks)

b) How much K_2O did the farmer apply per ha. (2mks)

c) How much nitrogen did the farmer apply per/ha. (2mks)

14. State two methods of pH testing. (2mks)

.....

.....

.....

15. Outline four disadvantages of mulching in crop production. (2mks)

.....

.....

.....

.....

.....

16. List 3 factors that determine the time of harvesting farm produce (3mks)

.....

.....

.....

.....

17. State four post harvesting practices. (2mks)

.....

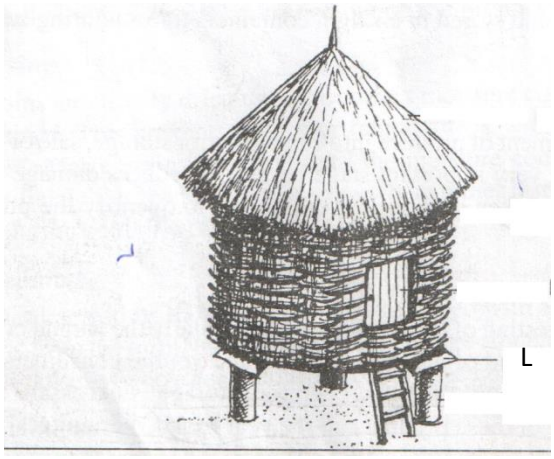
.....

.....

.....

.....

18. The diagram below shows a type of storage facility. Use it to answer question that follow.



a) Name the structure. (1mk)

.....

.....

b) Name part L and state its function. (2mks)

.....

.....

.....

c) Name the roofing material the structure is made of: (1mk)

.....

.....

d) List three limitations of the above structure. (3mks)

.....

.....

.....

.....

e) Give two preparations that the farmer should make on the above structure before the crop produce is brought in. (2mks)

.....

.....

.....

19. Give four categories of vegetables. (2mks)

.....

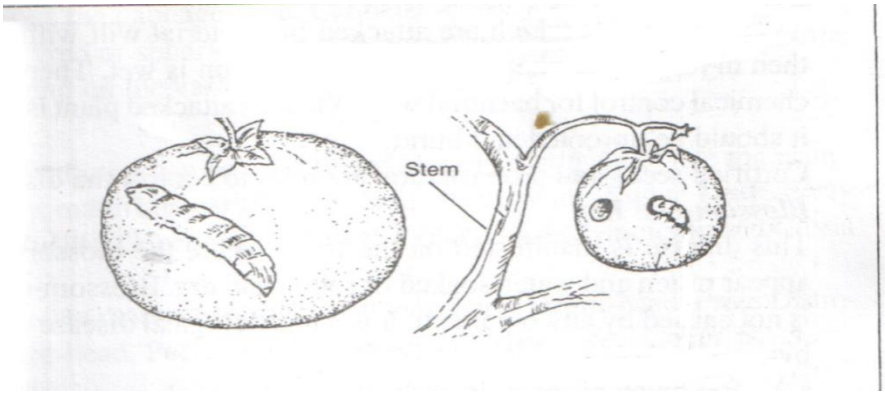
.....

.....

.....

.....

20. The diagram below represents a pest that attacks tomatoes.



i) Identify the pest. (1mk)

.....

.....

ii) State two control measures of the above pest. (2mks)

.....

.....

.....

21. (a) Differentiate between health and disease as used in livestock health. (2mks)

.....

.....

.....

(b) State four factors that predispose livestock to diseases. (4mks)

.....

.....

.....

.....

.....

.....

(c) Outline 3 routine management practices of disease control. (3mks)

.....

.....

.....

.....

(d) State three activities in livestock health that necessitate handling of animals. (3mks)

.....

.....

.....

.....

22. (a) List two harmful effects of tsetsefly infestation to livestock. (2mks)

.....

.....

.....

(b) Name:

i) Intermediate host for tapeworm. (1mk)

.....

.....

ii) Intermediate host for liverfluke. (1mk)

.....

.....

(c) Give two examples of one host tick. (2mks)

.....

.....

.....

NAME: ……

CLASS: …… **ADM: ……**

MID- TERM 3 EXAMS

BIOLOGY

FORM 2

1. (i) What is respiration? (1mk)

……

……

……

(ii) State any **two** importance of respiration. (2mks)

……

……

……

2. (a) (i) Name the blood vessel that supplies the cardiac muscles with its requirements. (1mk)

……

……

(ii) State the corgenical defect of the above blood vessel resulting from prolonged large intake of cholesterol in the blood. (1mk)

……

……

(b) What is the importance of the thicker muscular wall of the left ventricle of a mammalian heart? (2mks)

……

……

……

3. (a) (i) Name the respiratory surface in insects. (1mk)

……

……

(ii)State any **one** feature that adapts the structured named in a (i) above to its functions. (1mk)

……

……

(b) Why are the fish gills highly vascularized? (1mk)

……

……

4. a) (i) what would happen if a person secreted less A.D.H? (1mk)

……

……

(ii) Name the condition described in a(i) above. (1mk)

……

……

(b)What is the role of the loop of Henle in homeostasis? (1mk)

……

……

5. (a) Name the products of anaerobic respiration in plants. (1mk)

……

……

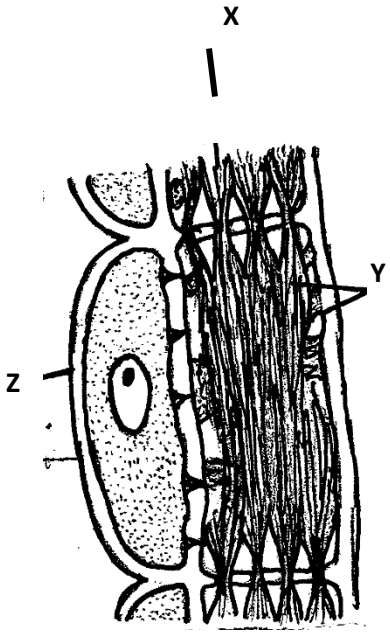
(b)Give any **two** economic importance of the products named in (a) above. (2mks)

……

……

……

6. The diagram below illustrates part of phloem tissue.



(a) Name the parts labeled. (2mks)

X ……..

Y……

(b) State the function of the part labeled **Z** (1mk)

……

……

7. Name the monosaccharides that make up the disaccharides below

(a) Sucrose (1mk)

……

……

(b) Lactose (1mk)

……

……

(c) Maltose (1mk)

……

……

8. State **one** use of the following excretory products of plants (2mks)

(i) Latex

……

……

(ii) Colchicine

……

……

9. (a) Define respiratory quotient (1mk)

……

……

(b) Given the equation below, calculate the respiratory quotient (RQ) (2mks)

$C_6H_{12}O_6+6O_2 \longrightarrow 6H_2O+6CO_2+2880kJ$

10. State the importance of the following

(i) Reversed stomatal rhythm to desert plants (1mk)

……

……

(ii) Closing of stomata on a hot dry sunny day (1mk)

……

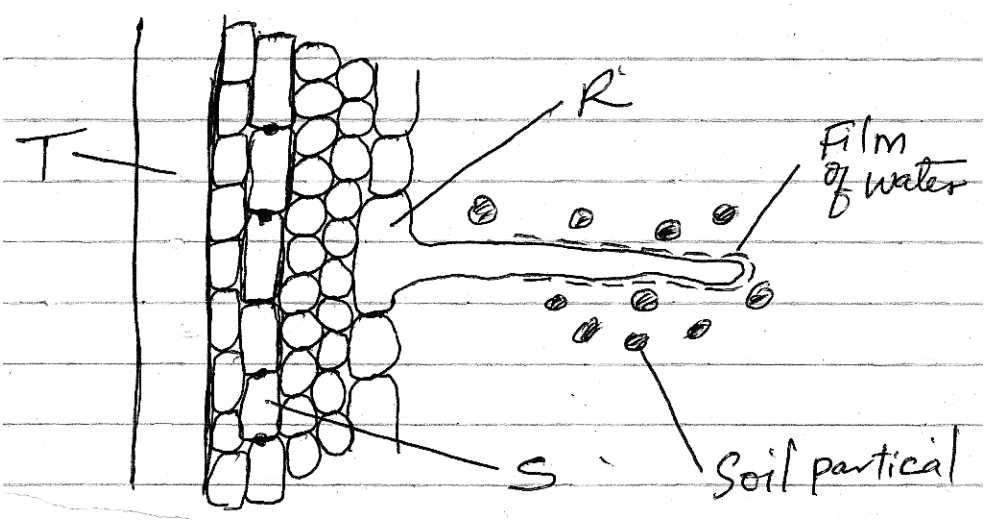
……

(iii) How does wind affect transpiration rate? (1mk)

……

……

11. The diagram below represents the pathway of water from soil into the plant.



i. Name the structures labeled T and S.

T: …… (1mk)

S: …… (1mk)

ii. State **two** ways in which the structure labeled R is adapted to its functions. (2mks)

……

……

……

12. A student added equal amounts of blood to equal volumes of salt of different concentrations. She observed and counted the red blood cells at the beginning of the experiment and at end of the experiment. The results were as shown:-

Set up	Concentration of salt	Beginning	After 30 mins
A	0.1mol	500	500
B	0.01mol	500	250

Account for the results in:

(a) Set up A (2mks)

……

……

……

……

(b) Set up B (2mks)

……

……

……

……

13. Below is a dental formula of certain organisms. Use it to answer the questions that follow.

$I\ ^{0}/_{3}$, $C\ ^{0}/_{1}$, $PM\ ^{3}/_{2}$, $M\ ^{3}/_{3}$

(i) Calculate the total number of teeth in the mouth of the organisms. (2mks)

(ii) Name the organisms. (1mk)

……

……

(iii) Identify the mode of nutrition of the organisms. (1mk)

……

……

14. (a) Give a reason why glucose does not normally appear in urine even though it is filtered in mammalian Bowman's capsule. (2mks)

……

……

……

(b) Which hormones are involved in the salt-water balance in human body? (2mks)

……

……

……

15. a) State **two** functions of the blood other than transport. (2mks)

……

……

……

(b) Name **one** defect of the circulatory system in humans. (1mk)

……

……

16. (a) State **two** ways in which human body is naturally protected against harmful bacteria. (2mks)

……

……

……

(b) State **one** way in which the composition of blood in the pulmonary artery and that of pulmonary vein differ. (1mk)

……

……

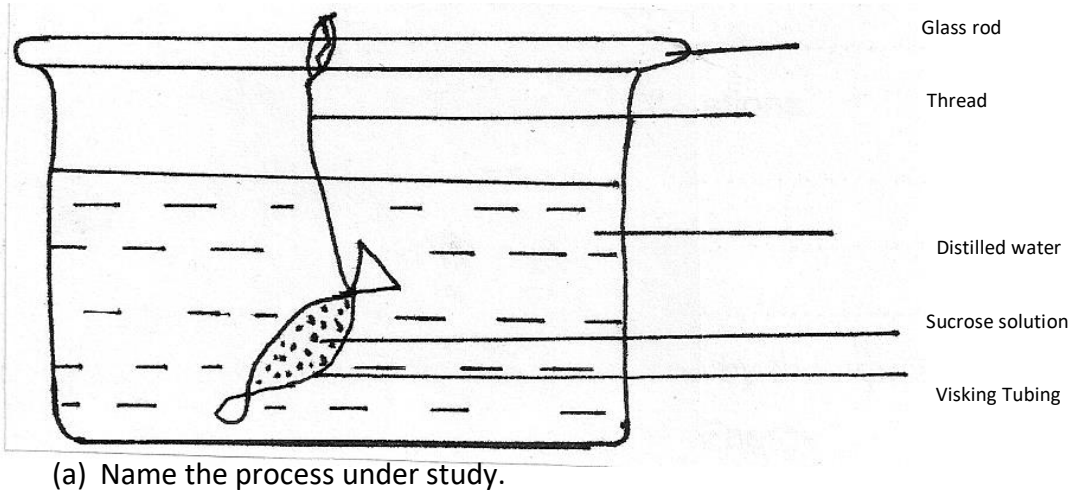
17. Describe the path taken by Carbon (IV) Oxide released from the tissues of a cockroach into the atmosphere. (2mks)

……

……

……

18. Form One student set up an experiment shown below to investigate a certain physiological process. The set up was left for 30 minutes.



(a) Name the process under study. (1mk)

……

……

(b) State the expected results after 30 minutes. (1mk)

……

……

(c) Explain your answer in (b) above. (3mks)

……

……

……

……

19. Explain why it is important to stain specimen to be observed under a light microscope. (2mks)

……

……

……

20. What is wilting? (2mks)

……

……

……

21. State the significance of the following steps while testing for disaccharides in food sample. (2mks)

(a) Addition of dilute hydrochloric acid

……

……

(b) Addition of sodium bicarbonate.

……

……

22. a) (i) Name the fluid produced by sebaceous gland. (1mk)

……

……

(ii) State **two** function of the fluid named in 5 a) (i) above. (2mks)

……

……

……

b) Explain Malpighian layer of the skin is adapted to perform its function. (1mk)

……

……

……..

23. Outline **three** functions of colon. (3mks)

……

……

……

……

24. Explain four reasons why the study of biology is important (4mks)

……

……

……

……

……

25. Define the term physiology (1mk)

……

……

……

NAME: ……

CLASS: …… ADM.NO: ……

BUSINES FORM TWO,

MID-TERM 3. TIME.1hr 30mins

1. Highlight four unethical issues in product promotion. (4mks)

……

……

……

……

……

2. State four occupations that a person may engage in, in the primary level of production. (4mks)

……

……

……

……

……

3. For each of the features given below, indicate with a tick (v) whether it relates to a public limited company or private limited company. (5mks)

Features	Public Ltd	Private Ltd
a) Can advertise shares		
b) Unlimited number of members		
c) Minimum of seven members		
d) Restricts transfer of shares		

4. The management of Kazikwavijana enterprise is contemplating coming up with a new office block. Name five reasons why they should adopt an open office layout. (5mks)

……

……

……

……

……

……

5. Classify the following goods as either consumer or producer goods.

Goods	**Classification**
a) Matatu	
b) Persona Radio	
c) Factory	
d) Clothes	
e) Jembe	
f) Shoes	

6. Indicate the type of Advertising Described in the table below. (4mks)

Description	**Type of advertising**
a) Creates awareness of the product	
b) Popularizes the business organization	
c) Persuades customers to buy the product	
d) Reminds customers that the product is still in the mirket	

7. Highlight four circumstances under which cash is preferable as a means of payments(4mks)

……

……

……

……

……

8. Write the following in full; (3mks)

a) C. W. O

……

……

b) C. O. D.

……

……

c) L. O. U

……

……

9. Highlight four roles played by insurance in an economy. (4mks)

……

……

……

……

……

10. Creditor may not accept personal cheques for fear that they might be dishonored. Outline five reasons why a cheque may be dishonored. (5mks)

……

……

……

……

……

……

11. Muthiora a businessman has a building worth Ksh. 2,000,000 which he insured against Fire for Ksh. 1,500,000. The3 buliding was gutted down by accidental fire and the remains were valued at Ksh. 600,000. Calculate the amount of compensation Muthiora got from the insurance company. (4mks)

12. State two acts of parliament that are meant to protect consumers from exploitation. (2mks)

……

……

……

SCETION II

13. Explain five disciplines covered in Business studies. (10mks)

……

……

……

……

14. Discuss the five essentials of Effective communication. (10mks)

……

……

……

……

……

……

……

……

……

……

……

15. Explain any three principles of insurance. (6mks)

……

……

……

……

……

……

……

……

NAME: ……..

ADM: ……. DATE: …….....

CHEMISTRY

MID-TERM 3,

TIME: 2 HRS

1. The electron arrangement of ions X^{3+} and Y^{2-} are 2.8 and 2.8.8 respectively.

a) Write the electron arrangement of elements X and Y.

X - (1 mk)

……

……

Y - (1 mk)

……

……

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

……

……

2. Study the equation below;

$Mg_{(s)} + ZnO_{(s)} \longrightarrow MgO_{(s)} + Zn_{(s)}$

a. By use of arrows, indicate oxidation and reduction reactions in the equation. (2 mks)

b. Name the reducing agent in the above reaction. (1 mk)

……

……

3. Distinguish between the terms deliquescent and efflorescent salts. (2 mks)

……

……

……

……

4. The table below shows PH value of different solutions.

Solution	A	B	C	D
PH	14	7	2	11

a) Which solution is likely to be sugar solution? (1 mk)

……

……..

b) Two of the solutions were found to react with both aluminium oxide and zinc oxide.

Identify the two giving reasons. (1mk)

……

……

……

……

……

5. Identify the methods that are most appropriate to obtain. (3 mks)

(i) Oil from coconut

……

……

(ii) Diesel from crude oil

……

……

(iii)Sugar crystals from sugar solution

……

……

6. An element Q has an electron arrangement of 2.8.5

(a) Identify the group and period to which it belongs.

Group - (1 mk)

……

……

Period - (1 mk)

……

……

(b) is element Q a metal or a non-metal? Explain (2 marks)

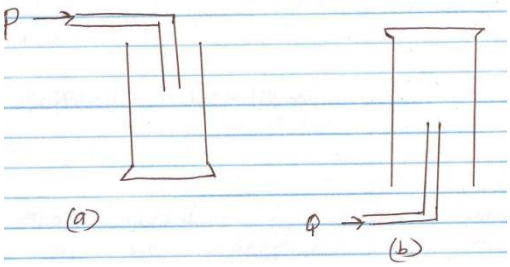
……

……

……

7. Carbon has two isotopes namely ${}^{14}_{6}C$ *and* ${}^{12}_{6}C$. Calculate the relative abundance of these two isotopes if the relative atomic mass of carbon is 12.4. (3mks)

8. The diagram below shows how two gases, P and Q were collected.



(i) Name the two methods shown above.

a) - (1 mk)

……

……

b) - (1 mk)

……

……

(ii) State the property of Q that enables it to be collected as shown above. (1 mk)

……

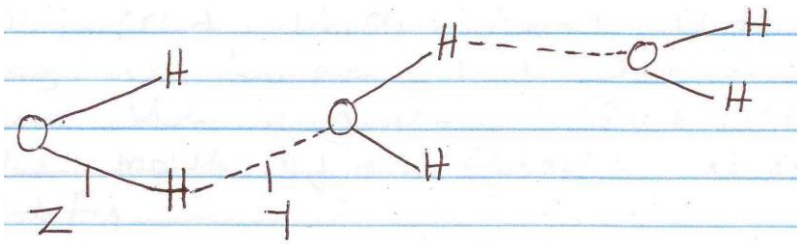
……

(iii) Give an example of a gas that is collected using the method shown in (b) above. (1 mk)

……

……..

9. The structure of water molecule can be represented as shown below.



(a) Name the type of bonds represented by letters Y and Z.

Y – (1 mk)

……

……

Z - (1 mk)

……

……

10. Element R has a valence of 2, element Q has a valence of 1 while element B has a valence of 3. Write the chemical formulae of their sulphates, phosphates and nitrates. (4½ mks)

Element	Sulphates	Phosphates	Nitrates
R			
B			
Q			

11. When a white solid X is heated, a yellow solid which turns white on cooling is formed and a brown gas is seen. When a glowing splint is placed at the mouth of the test-tube it relights.

a) Identify;

(i) Solid X - (1 mk)

……

……

(ii) The brown gas - (1 mk)

……

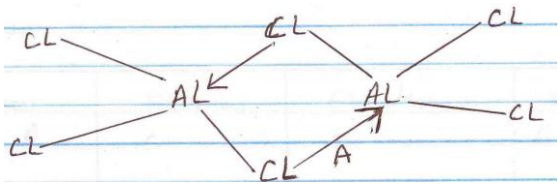
……

b) Write an equation for the decomposition of solid X. (1 mk)

……

……

12. Below is a structure of aluminium chloride.



a. Identify bond A. (1 mk)

……

……

b. State the observations made when aluminium chloride solution is tested with blue and red litmus paper. Explain. (2 mks)

……

……

……

……

13. Which particles conduct electricity in;

(i) Molten lead (ii) bromide (1 mk)

……

……

(ii) Aqueous sodium chloride (1 mk)

……

……

(iii)Graphite (1 mk)

……

……

14. The following table gives the structures of the different atoms. Study it and answer the questions that follow. (A, B, C, D and E do not represent the actual symbols of the elements).

Atom	Protons	Electrons	Neutrons
A	5	5	6
B	9	9	10
C	10	10	11
D	15	15	16
E	10	10	12

a. What is the mass number of atom B? (1/2mk)

……

……

b. Which of the atoms has a mass number of 11? (1/2mk)

……

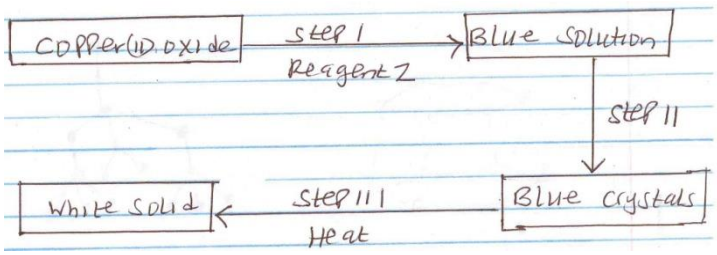
……

c. Which of the atoms represent isotopes of the same element. (1 mk)

……

……..

15. Study the following flow chart and answer the questions that follow.



(a) (i) Identify reagent Z. (1 mk)

……

……

(ii) Identify the white solid. (1 mk)

……

……..

(b) Write a chemical equation for the formation of the blue solution. (1 mk)

……

……..

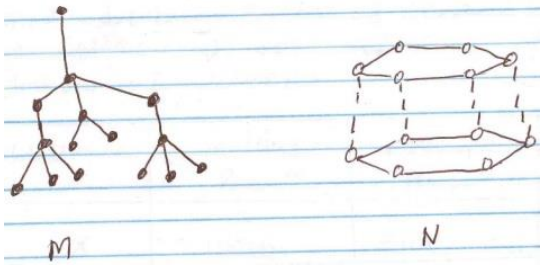
16. State two properties that makes aluminum to be used in making of overhead electric cables. (2 mks)

……

……

……

17. The structures below represent two allotropes of carbon. Study them and answer the questions that follow.



a) Identify the allotropes labeled

M - (1/2 mks)

……

……

N - (1/2 mks)

……

……

b) Explain in terms of structure and Bonding which of the two allotropes;

(i) Conducts electricity. (1 mk)

……

……

(ii) Is used in making drilling equipment. (1 mk)

……

……

18. (a) The table below shows properties of some substances.

Substance	Melting point (^{0}C)	Boiling point (^{0}C)	Electrical conductivity	
			Solid	Liquid
A	-112	-107	Poor	Poor
B	801	1413	Poor	Good
C	97.5	880	Good	Good
D	44	280	Poor	Poor
E	1700	2200	Poor	Poor
F	-110	46.3	Poor	Poor

Select a substance which;

(i) Has a giant ionic structure. (1 mk)

……

……

(ii) Is a metal (1 mk)

……

……

(iii)Has a giant atomic structure. (1 mk)

……

……

(b) Using dots (.) and crosses (x) illustrate bonding in ammonia molecule (NH_3). (N=7, H=1) (2 mks)

(c) A student placed a small piece of sodium metal in a trough of water.

(i) State two observations made? (2 mks)

……

……

……

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

……

……

19. The products formed by action of heat on nitrates of elements A, B and C are shown below.

Nitrates	Products formed
A	Metal oxide + Nitrogen(iv)oxide + Oxygen
B	Metal + Oxygen + Nitrogen(iv)oxide
C	Metal nitrite + Oxygen

(a) Arrange the metals inorder of increasing reactivity. (1 mk)

……

……

(b) Which element forms a soluble carbonate? (1 mk)

……

……

(c) Give an example of element B. (1 mk)

……

……

I. (i) Write an equation to show the effect of heat on each of the following;

a. Sodium hydrogen carbonate. (1 mk)

……

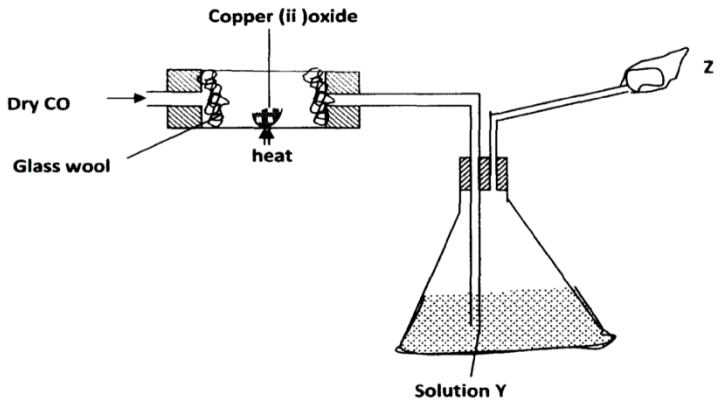
……

b. Copper(ii)carbonate (1 mk)

……

……

20. The figure below is used to investigate the effect of carbon (ii) oxide on copper (ii) oxide. Study it and answer the questions that follow Copper (ii) oxide.



i) What will be observed in the combustion tube at the end of the experiment? (lmk)

……

……

ii) Identify Y and give its use (2mks)

……

……

iii) Why is it necessary to burn the excess gas at Z (lmk)

……

……

iv) Write the equation for the reaction taking place at Z (lmk)

……

……

v)Give two uses of carbon (II) oxide (2mks)

……

……

……

NAME: ……..……..…

ADM NO: ……..…….. DATE: ……

FORM THREE

MID-TERM THREE EXAM

Answer ALL Questions

1. Explain how the teaching of C.R.E promotes national unity (5 mrks)

2.Why is the Bible referred to as Good News (5 mrks)

3. Identify the relationship between the creation of man and the rest of creation (5 mrks)

4. State reasons why Moses was reluctant to accept God's call (5 mrks)

5. Give reasons why Elijah faced danger and hostility as a prophet of God (5 mrks)

6. State the Old Testament prophecies about the Messiah according to prophet Micah (Micah 5:2-5) (5 mrks)

7. State the role of Messiah according to prophet Isaiah (Isaiah 61:1-2) (5 mrks)

8. Describe the annunciation of the birth of John the Baptist to Zechariah (Luke 1:5-25) (5 mrks)

9. What lessons do Christians learn from the story of the Birth of Jesus (5 mks)

10. Relate the healing of the man with the evil spirit (Luke 4:31-37) (5 mks)

11. State the main themes of the sermon on the plain in Luke 6:20-49 (5 mks)

12. Relate the story of the feeding of the five thousand Luke 9:10-17 (5mks)

13. What lesson do Christians learn from the parable of the ten pounds in Luke 19:11-27 (5 mks)

14. Outline the events that took place during Jesus' entry into Jerusalem (Luke 19:28-40) (5 mrrks)

15. Identify the attributes of God as understood by the African people (5 mrks)

NAME: ……..

ADM NO: ……. CLASS:……

FORM 2
ENGLISH MID-TERM 3

1. FUNCTIONAL WRITING (20 marks)

Sawa Sawa Institute of Technology, a new college in Makindi Town wishes to invite applications for Computer Engineering, Hotel management, Nursing and Medical Laboratory as well as Early Childhood Education Courses as advertised in the daily nation on 13th July 2020 Only those who have attained a KCSE mean grade of C+ qualify. Applications should reach the Director before 4th August 2020. Write an application letter.

……

……

……

……

……

……

……

……

……

……

……

……

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

1.CLOZE TEST

Fill in each of the spaces with an appropriate word. (10mks)

What is good governance? This is a question that people (1) _____ very often. It refers to the responsible (2) _____of the affairs of a village, town or country. Where there is good governance, people live in harmony, ways of (3) _____ poverty are sought and people assume ownership (4) _____ the process of developing their communities. (5) _____ the government is expected to create a (6) _____ political and legal environment for development, it cannot succeed if ordinary citizens do not co-operate and play their role. Everyone craves for the (7) _____ of the rule of law but if we do not obey that (8)_____ law, we will not know peace. We accuse certain sectors (9) _____ but give bribes in order to induce others to give us (10) _____ Treatment. If we really desire to have positive changes in our society, we must change our attitudes and join hands in building a society we can all be proud of.

2. ORAL NARRATIVE.

Read the Oral Narrative below and answer the questions that follow.

AN OLD WOMAN AND HER DEFORMED SON

There was an old woman whose children died in infancy and only a deformed boy survived to grow into adulthood. The boy was a hunchback.

Although the old woman loved this hunchback son of hers, she was secretly ashamed of his physical appearance. She was ashamed that each day she was on the look out of visitors who might come around just to make fun of him. To keep him away from the public eye, she used to confine him in a drum most of the time. So, right from his childhood, the boy grew up in a drum. He was taken out only a few times during the day when the old woman was sure that there were no intruders around. When the boy attained circumcision age, he was duly circumcised. After circumcision he

said to the old woman, "mother, I now want a wife, can you please find me a girl to marry!" "Yes, my son," said the old woman. I will try. I am indeed very pleased to learn that you are already thinking of a wife."

By and by, the old woman went to look for a suitable girl to marry her son. She approached a pretty girl and asked her whether she would be interested in marrying her son and the girl promised to think about it. Without disclosing her son's physical defects to the girl, the old woman set about wooing her intensively. She brought all sorts of gifts to her mother, helped the girl to collect firewood and even helped her with work in the shamba. Reluctantly the girl gave in and there upon requested the old woman to make the necessary arrangements so that she would meet the future husband. The old woman cunningly suggested that the girl should accompany her to her house where she would be able to meet the boy.

The old woman lived along way from the girl's village. On the day when the girl decided to visit her prospective bridegroom, she walked and walked until the sun set. It was a very long journey indeed. When she eventually arrived, the old woman pretended that the young man was around and he would appear shortly. The girl waited and waited but the boy did not appear at all. At bedtime, the girl was told that the boy was already in bed sleeping. She was shown a separate place to sleep, and, thus no opportunity to either see or talk to the boy as would have been expected of people who were planning to live together.

Very early in the morning the girl asked the woman, "Please, where is the boy you want me to marry? And the woman replied, "My son woke up early in the morning and went to work in a different village yonder so that he can earn something for your bride price." Everything was around the house. The old woman and the girl went to cultivate in a banana grove. While they were away, the boy jumped out of the drum, busied himself about he house with the little chores singing:

KhanenuyaMunju, mwange, Khanenuyemunjumwange
Mkhasinakikhalimisilu, majikukuombelesyamusechakacha
Khucuma, abele khuchumanachasina?
Menyile, mukhang'oma, kurumbakulikhumukongo
(Let me busy myself in my house. Aren't women foolish?
Mother fooled her,
"Your husband has gone to work," How could I have gone to work? I just live in my little drum because I have a hunchback")

The girl heard the boy's singing but it was so faint that she would neither comprehend the meaning of the song nor even make out as to which direction the sound came from. However, out of curiosity she stopped from time to time and listened. This went on for several days until she started to guess the meaning of the words in the song. On getting the message home she was quite disturbed. Her suspicion was strengthened by the fact each morning they left for the shamba without sweeping or washing utensils but on their return they found everything tidy about the house. One day she deceived the old woman by telling her that she was going to attend to a call of nature while infact her intention

was to discover exactly what was going on in the house. No sooner had she disappeared behind the bushes than she tiptoed to the house and stood listening keenly at the door. She got really upset with the boy's derogatory song. She pondered with herself, "So this is my husband to be? A hunchback confined to a drum? No wonder the old woman deceived me the way she did. What girl in proper sense could marry a man like that? Anyway what can I do now? I must put an end to this confirmed bluff…"

One morning she said to the old woman, "Mother, today you will go look for firewood while I go to the plantation alone." The old woman said, "Yes, my daughter, we can share work that way." She had grown so used to the cheerful and friendly manner of the girl, thinking that she would not mind staying on as her daughter-in-law even after discovering that her son was deformed. Indeed she was already contemplating making the revelation to her.

And so each went her separate way. But as soon as the old woman vanished from the sight, the girl dashed back and stood at the door which had now become familiar ground for spying on the hunchback. She listened briefly as the boy sang mischievously inside the house. Then she stole a quick glance peeping through a side hole.

To her amazement, she saw that he was really a hunchback! Quite oblivious, the boy went on sweeping the floor and singing. The girl felt that she could no longer stand it. She broke into the house suddenly with the intention of beating up the mischievous fellow. But before she could get hold of him he dodged nimbly and slipped back into the drum. Nonetheless, the girl fuming with anger picked up the drum and smashed it on the floor. A pool of blood started oozing from the broken drum. The poor hunchback was dead!

Considering it appropriate revenge on the old woman the girl felt no remorse for the action she had taken. She rolled over the cold body of the hunchback as a lamp of anger swelled her throat. When the old woman returned home and found the mess she had done in the house she screamed at the top of her voice, Ooh, oh, Uuuuuwe… uuuuuwe!" But it was all in vain. The deformed boy whom she had been ashamed of showing to the public was dead and gone for ever! Yes, instead of feeling relieved by burden of shame she now felt great anguish for this loss. After killing the hunchback the girl also disappeared never to be seen again. The poor old woman remained there weeping and feeling quite forlorn.

Questions

a) Categorize this narrative. (2mks)

……

……

……

b) What function does the song serve in this narrative? (2mks)

……

……

……

c) What features of oral narrative are evident in the above story. Identify and illustrate. (4 marks)

……

……

……

……

……

d) Describe the character of:- (4mks)

i. The girl

……

……

……..

ii. The old woman

……

……

……

e) What moral lesson do we learn from this narrative? (2mks)

……

……

……

f) How far is the old woman to blame for the tragedy that befell her? (3mks)

……

……

……

……

g) Identify **two** socio-economic activities in the community. Support your answer with evidence from the story. (4mks)

……

……

……

……

……

h) Give a proverb to summarize this narrative. (2mks)

……

……

……

i) "Mother, today will you go to look for firewood while I go to the plantation?" (change into reported speech) (1mk)

……

……

j) Provide a homonym for the words given below. (5 marks)

i) route **.....**

ii) know **.....**

iii) grown **.....**

iv) eight **.....**

v) blue **.....**

3.GRAMMAR 15 MARKS

Identify the main clause in the following sentences

i. I finished my homework before it was due.

……

……..

ii. Because he lost his money, Makoha hiked a lift home.

…….....

.....

iii. Although Omollo is very cunning, he did not fool the teacher

……

……

iv. Stay here until I come back

……

……

v. As soon as they got home they had lunch.

……

……

Fill in each of the following sentences with appropriate prepositions

i. Gachie was very proud **……...** hissons performance.

ii. He arrive **……..** London at midnight.

iii. The teacher was very angry**…….** the lazy students.

iv. I travelled to Nakuru **……..…** bus.

v. The sweets were shared **……** members of the class.

Choose the correct choices in the brackets to complete the following sentences

i. For_____(who/whom) are you carrying that food?

ii. I missed the earliest car to the airport, consequently, I missed the flight _____ (all together/altogether)

iii. John could not _____to see his house stripped _____of all furniture. (bare/bear)

Complete the following sentences with a phrasal verb starting with the word in brackets.*(2 marks)*

1. She looked carefully at the document but couldn't _____ what it meant (make)
2. The teacher couldn't _____ the students' bad behaviour. (put)

Name: ……..

Class: …….. Adm No:……..

FORM 2

MID-TERM THREE

GEOGRAPHY EXAM

TIME:

INSTRUCTIONS.

Answer all the questions in the spaces provided.

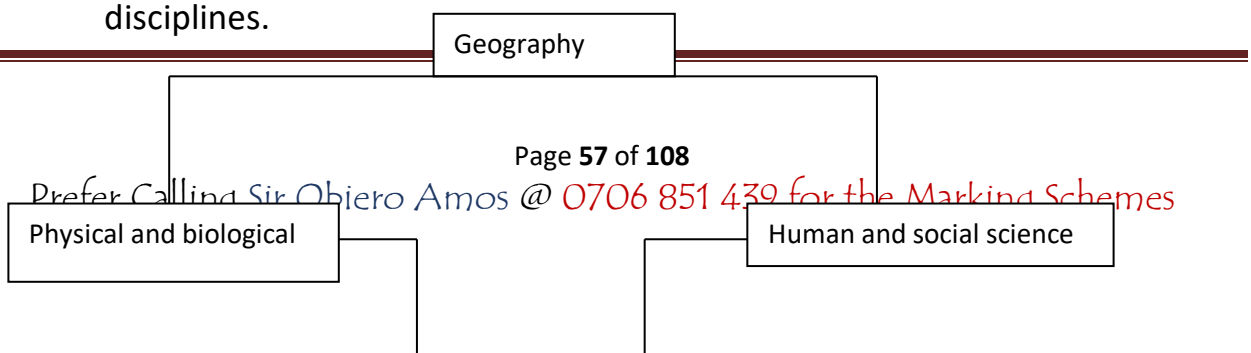
1. a. Show how geography is related to chemistry. (2mks)

……

……

……

c. The diagram below shows the interrelation between geography and other disciplines.



i. Identify the discipline marked X and Y. (2mks)

……

……

……

ii. Name the subject marked Z. (1mk)

……

……

2. a. Give the forces responsible for the earth's force. (2mks)

……

……

……

b. State three effects of revolution of the earth. (3mks)

……

……

……

……

3. a. What is a rock? (2mks)

……

……

……

b. Name three examples of intrusive igneous rocks. (3mks)

……

……

……

……

ii. Describe three ways in which sedimentary rocks are formed. (6mks)

……

……

……

……

……

……

……

……..

4. a. With the aid of a diagram outline the formation of rift valley by tension theory. (5mks)

b. Students are planning to carry out field study of an area affected by faulting.

i. State the four importance of having a pre-visit of the area. (4mks)

……

……

……

……

……

ii. Give three disadvantages of using observation to study such an area. (3mks)

……

……

……

……

c. i. Give three causes of earthquakes. (3mks)

……

……

……

……

ii. Name two major earthquake zones of the world. (2mks)

……

……

……

5. a. What is secondary vegetation? (2mks)

……

……

……

b. Explain how the following factors influence the distribution of vegetation.

i. Aspect (2mks)

……

……

……

ii. Precipitation (2mks)

……

……

……

iii. Identify three vegetation zones in Kenya. (3mks)

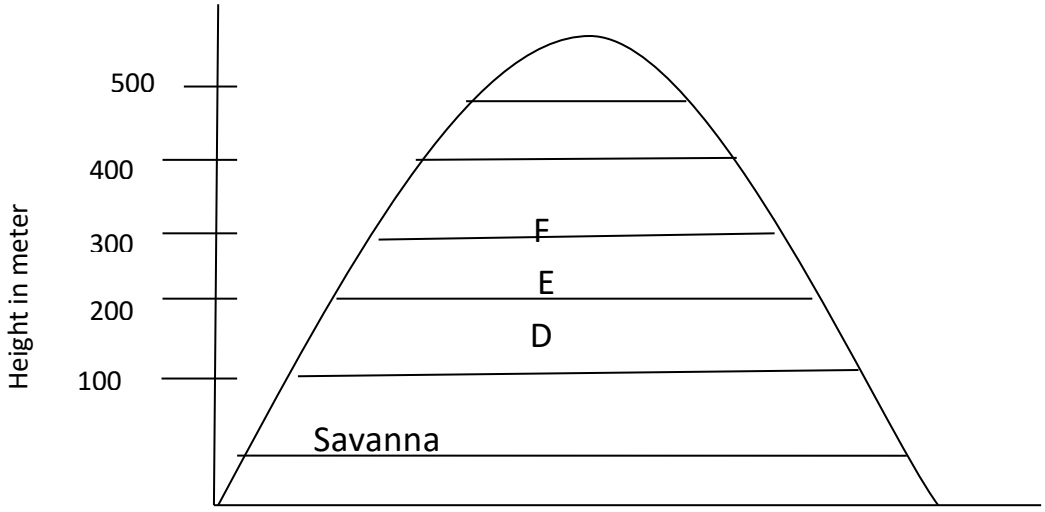
……

……

……

……

c. The diagram below represents zones of natural vegetation on a mountain within the tropical region. Use it to answer questions that follow.



i. Name the vegetation zone marked D, E, F. (3mks)

……

……

……

……

ii. Describe the characteristics of tropical savannah vegetation. (8mks)

……

……

……

……

……

……

……

……

……

d. State four significance of vegetation to human activities. (4mks)

……

……

……

……

……

6. a. What is weather forecasting? (2mks)

……

……

……

b. List three problems of weather forecasting. (3mks)

……

……

……

……

c. State three ways in which weather forecasting is important to human activities. (3mks)

……

……

……

……

……

NAME: ……..

ADM:…… CLASS……..

MID-TERM THREE EXAMS, FORM TWO
HISTORY AND GOVERNMENT
TIME: 2 HRS

SECTION A (25 marks)

Answer all questions in this section

1.Name two sources of oral traditions from which historical information could be obtained (2 marks)

2. Give two examples of early manuscripts from which the Bible and the Quran was written (2 marks)

3. Name the family group that early human beings developed from (1 mark)

4. Name one archaeological site in Ethiopia (2 marks)

5. Give two reasons how the use of fire in cooking change the early man's food (2 marks)

6. State two functions of the Kabaka of Buganda (2 marks)

7. Give two main reasons why early agriculture developed along the river valleys (2 marks)

8. State any two roles played by the tuaregs in the trans Saharan trade (2 marks)

9. Identify the main commodity from Africa in the Trans -Atlantic trade (1 mark)

10. Give two improvements that were made on macadamized roads in the 9th century (2 marks)

11. List two advantages of using pipeline over vehicles in transporting oil (2 marks)

12. State one advantage of using wood as asource of energy (1 mark)

13. Identify two reasons that led to the decline of Meroe as an early urban centre(2 marks)

14. What was the main function of the royal fire in MweneMutapa kingdom (1 mark)

15. Give two economic activities acquired by the Maasai as a result of their interaction with the Bantus (2 marks)

SECTION B (30 MARKS)

Answer two questions in this section

16 a) State five factors that facilitated the growth of a strong Asante kingdom (5 marks)

b) Describe the political organization of the Buganda kingdom (10 marks)

17 a) Give three negative impacts of scientific inventions on industry (3 marks)

b) Explain six reasons why developing countries have lagged behind in industrialization (12 marks)

18. a) Give five results of the settlement of the Luo in Kenya during the pre-colonial period 5)

b)Describe the social organization of the Luo during the pre-colonial period (10 marks)

SECTION C (15 MARKS)

ANSWER ONE QUESTION IN THIS SECTION

19.a) State five factors that can cause people who were living together peacefully to develop disagreements. (5 marks)

b) Explain five importance of national integration (10 marks)

20 a) State five social effects of urbanization on European communities during the 19th century.(5 marks)

b) Explain five measures taken by the government of Kenya in an effort to solve problems facing Nairobi city

JINA: ……..

NAMBARI: ……. DARASA: ……...

KISWAHILI
KIDATO CHA PILI
MJARIBU WA PILI MUHULA WA TATU,

INSHA

Wanafunziwashuleyenuwalienda safari mjiwakaribu (weweukiwemo).Eleza jinsi safari ilivyokuwa (alama 20)

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

JINA ……..……

NAMBARI…….. DARASA ……..

KISWAHILI

KIDATO CHA PILI

1. **UFAHAMU**

Wahenga walisema “motto umleavyo ndivyo akuavyo”. Hii in maana ya kuwa ukiogopa kutumia ufito kumchapa motto wako, ukamdekeza, utadeka na hatimaye ataharibika. Methali hii ina pacha yake ambayo ni “ukicha mwana kulia, utalia wewe.

Hizi ni methali zilizojaa busara kubwa. Mathalani, wewe ni mzazi au mtu yeyote mzima aliyetunukiwa madaraka juu ya watoto, lakini kila wanapokiuka uadilifu au mmoja wao anapokosea wewe unambembeleza tu, basi huwa unaizorotesha tabia yake. Mtoto huyo anaweza kuishia kuwa mtundu.

Hata hivyo, ni sharti tujue ya kwamba tuko katika nji apanda hapa. Kwa upande mmoja, zamani ilichukuliwa kwamba watoto n ahata mzima ana jambo la kuwaeleza, njia pekee ya kuliingiza katika ‘akili yao’ ni kuwatwanga ili kulikongomeza jambo hili. Ukweli ni kwamba akili ya motto si hafifu hata. Unaweza kusema ni kam ammea, ambao usiporutubishwa kimakusudi, ukapaliliwa vyem ana kustawishwa stahiki yake, basi hudhoofu; na mwisho kufifia .

Kwa upande mwingine, mtazamo wa kisas ani tofauti kabisa. Imethibitishwa ya kiwamba wanawake ni sawa kabisa katika maumbile yao wakilinganishwa na wanaume. Kwa jinsi hiyo, kweli wapo wanawake ambao hawana mwelekeo timamu

kuhusu maisha, lakini ni kweli kuwa watoto wote, kwa sababu ya umri wao tu, basihawana akili. Kadhalika, si kweli kuwa watoto wote, kwa sababu ya umri wao tu basi hawana akili. Ama kwa kusema kweli binadamu yeyote huzaliwa na akilipungufu. Hili litokeapo, basi tunalikubali tu. Hatuwezi kumlaumu mtu kama huyo au muumba wake. Kwa hakika huu ndio msingi wa methali, “akili ni nywele, kila mtu an azake.” Vinginevyo, mtazamo wa kizamani ni taasubi kongwe tu za kiume zilizopitwa na wakati.

Aidha, kwa sababu watu wote huzaliwa na akili timamu, tene hawawi watu wazima kabla ya kuwa watoto kwanza, mtu mzima yeyote an ahali gani ya kuwadhulumu watotro na kujipambaniza na lawama za uongo dhidi ya vijana hao kwa madai kuwa hawana akili? Na je, ikiwa hawana akili, basi ndipo waonewe? Wanyanyaswe? Hii si jambo la busara. Kurudi Mtoto kwa visa vya maonevu ni kumrudisha nyuma kiumbe huyo. Kurudi kufaako ni kwa kupeleka, sio kwa kurudisha nyuma. Kurudi kuelekezako mbele ni kwa uongozi ambao lengo lake ni kumulikia mtoto kurunzi ilimradi kumwangazia tariki njema.

Mtoto asinyimwe vya tunu vyovyote ambavyo ni stahiki yake, kwa kisingizio kuwa vimetengewa mtu mzima, ndugu mkubwa, mwalimu, au mtu awaye yeyote Yule aliyekabidhiwa jukumu la kumlea au mtu mzima, ndugu mkubwa, mwalimu au mtu awaye yeyeto. Yule aliyekabidhiwa jukumu la kumlea au kumwogoza motto.

Mtoto ana haki ya kuhudumiwa kwa njia yeyote ifaayo ili akue na akili yake ikomae kikamilifu. Inafaa asomeshwe,apewe malezi bora ili naye alee wengine kistahiki.

MASWALI

a) Mapenzi yasiyo kipimo yanaweza kuwa hatari kwa motto. Eleza kikamilifu huku ukirejelea habariuliyosoma . (Alama 3)

.....

.....

.....

.....

.....

b) Fafanua njia panda inayorejelewa na matunzi. (Alama 3)

.....

.....

.....

.....

c) Mtoto analinganishwa na mmea katika taarifa hii, kwamba "usiporutubishwa kimakusundi, ukapaliliwa vyema na kustawishwa stahiki yake basi hudhoofu," tathmini kulinganishwa huku, huku ukirejelea taarifa. (Alama 3)

.....

.....

.....

.....

.....

d) Akili ni nywele, 'Kila mtu ana ;zake. Eleza maana ya ndani ya methali hii kulingana na taarifa. (Alama 2)

.....

.....

.....

e) Onyesha kwamba unaelewa maana ya: (Alama 2)
Kurudi Mtoto kwa visa vya maonevu ni kumrudisha nyuma kiumbe huyo."

.....

.....

.....

f) Eleza maana ya: (Alama 2)

i) Kulikongomeza

.....

.....

ii) Kujipambaniza

.....

.....

2. <u>MATUMIZI YA LUGHA. (Alama 30)</u>

a. Eleza tofauti ya kimatamshi baina ya sauti zifuatazo.

i) (K)

.....

.....

ii) (G)

.....

.....

b. Eleza maana nne zinazojitokeza katika sentensi ifuatayo. (Alama 4)
Tande alimpigia milimo mpira

.....

.....

.....

.....

.....

c. Sahihisha sentensi ifuatayo kwa njia tatu mwafaka. (Alama 3)
Hapa Kwetu Mna Siafu Wengi.

.....

.....

.....

.....

d. Eleza maana ya ngeli. (Alama 1)

.....

.....

e. Andika sentensi mbili ili kuonyesha maana tofauti za alama ya kibainishi.(Al 2)

.....

.....

.....

f. Eleza maana ya mofimu. (Alama 2)

.....

.....

.....

g. Eleza hali zinazodhihirika katika sentensi zifuatazo.

i) Gari lake limebingirika mtaroni.

.....

.....

ii) Cha mlevi huliwa na mgema.

.....

.....

h. Andika sentensi ifuatayo kwa usemi taarifa. (Alama 2)
"Hamjambo wanafunzi", mwalimu aliwasalimia

.....

.....

i. Andika sentensi ifuatayo kwa ukubwa. (Alama 2)
Watoto walinunuliwa viatu maridadi.

.....

.....

j. Andika kinyume cha sentensi, (Alama 2)
Shangazi alifurahishwa na wimbo huo.

.....

.....

k. Tunga sentensi kuonyesha maana ya vitale vifuatavyo. (Alama 2)
i) Pamba

.....

.....

ii) Bamba

.....

.....

l. Toa maelezo ya msamiati ufuatao. (Alama 4)
i) Kielezi

.....

.....

ii) Kiiunganishi

.....

.....

iii) Kiwakilishi

.....

.....

3. ISIMU JAMII

a) Eleza maana ya. (Alama 5)

i) Sajili

.....

.....

ii) Lahaja

.....

.....

iii) Isimu

.....

.....

iv) Lafudhi

.....

.....

b) Eleza maana ya (Alama 5)
Kuchanganya ndimi

.....

.....

.....

.....

4. FASIHI SIMULIZI (Alama 10)

a) Maigizo ni nini? (Alama 2)

.....

.....

b) Toa mifano mine ya maigizo. (Alama 4)

.....

.....

.....

.....

c) Taja Dhima nine za maigizo. (Alama 4)

.....

.....

.....

.....

.....

NAME: ……..…

ADM. NO: …… **CLASS……..……**

DATE: ……/……./ ……..

MATHEMATICS MID TERM 3 EXAMS

TIME: 2½ HRS.

INSTRUCTION TO STUDENTS:

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

FOR EXAMINER'S USE ONLY:

SECTION I

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

17	18	19	20	21	22	23	24	TOTAL

SECTION II

GRAND TOTAL

Ensure that all the pages are printed and no question(s) are missing

SECTION I (50 MARKS)

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

1. Evaluate (3 Marks)

$$\frac{-12\ \ 3\ \times\ 4-(-15)}{-5\ \times 6\ 2+(-5)}$$

2. Evaluate without using a calculator. (3 Marks)

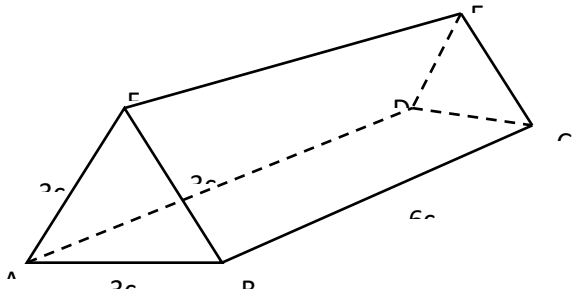
$$\frac{\left(2\frac{3}{7}-1\frac{5}{6}\right)\div\frac{5}{6}}{\frac{2}{3}of2\frac{1}{4}-1\frac{1}{7}}$$

3. Use logarithms to evaluate. (4 Marks)

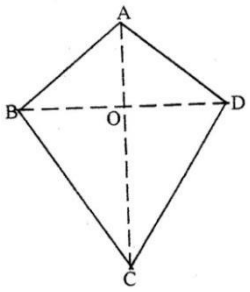
$$\sqrt[4]{\frac{43.52\ x\ 0.08792}{785.3}}$$

4. Find the equation of the L_1 in the form $y = mx + c$ which is perpendicular to the line 3y + 2x = 6 and passes through the point (-3, 4). (3mks)

5. The diagram below represents a prism of length 6cm whose cross-section is an equilateral triangle of sides 3cm. Draw a well labeled sketch of the net of the prism. (3 Marks)

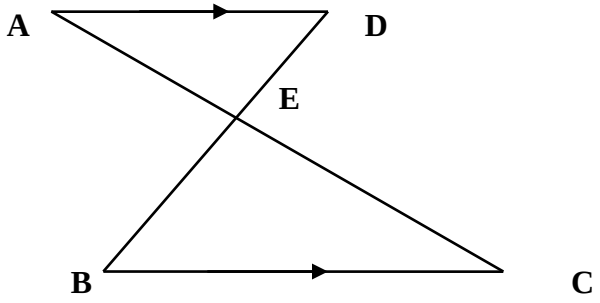


6. The figure below represents a kite ABCD, AB = AD = 15 cm. The diagonals BD and AC intersect at O. AC = 30cm and AO = 12 cm. Find the area of the kite (3mks)



7. Mrs. Musyoka has Sh. 700 in Sh. 50 notes and Sh. 100 notes only. If she has a total of 11 notes find how many notes she has of each denomination. (3mks)

8. In the figure below AD // BC. AC and BD intersect at E. Given that AE: EC = 1:5 and BD =12 cm, calculate the length of DE.



(3 marks)

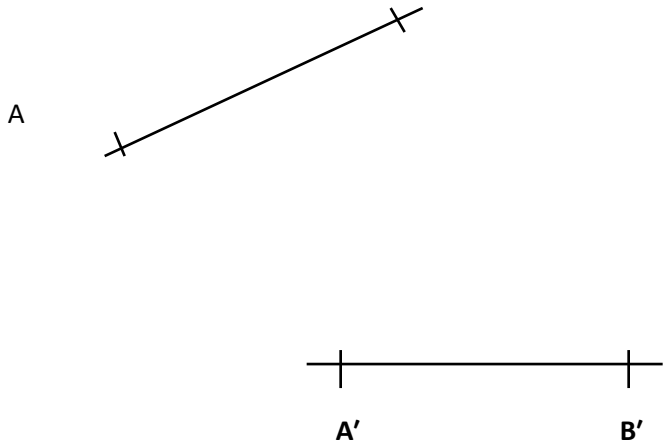
9. Given that$(3x - 35) = cos\ cos\ (x + 20)$. Find $x + 10)$ (3mks)

10. Without using a mathematical tables or a calculator evaluate $\sqrt{\frac{153\times0.18}{0.68\times0.32}}$. (3mks)

11. Three bells ring at intervals of 9 minutes, 15 minutes and 21 minutes. The bells will next ring together at 11.00pm. Find the time the bells had last rung together. (3 Marks)

12. The surface areas of two similar bottles are $12cm^2$ and $108cm^2$ respectively. If the bigger one has a volume of $810cm^3$. Find the volume of the smaller one. (3 Marks)

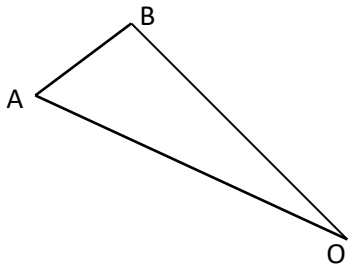
13. In the figure below A′B′ is the image of AB under rotation. By construction, find and label the centre O of the rotation. Hence, determine the angle of the rotation.(4mks)



14. Mr. Ombogo the principal of Chiga secondary would wish to cover the floor of the new administration block using the square tiles. The floor is a rectangle of sides 12.8m by 8.4m. Find the area of each of the largest tiles which can be used to fit exactly without breaking (3mks)

15. The size of an interior angle of a regular polygon is $(3x)°$ while the exterior angle is $(x + 20)°$. Find the number sides of the polygon (3 Marks)

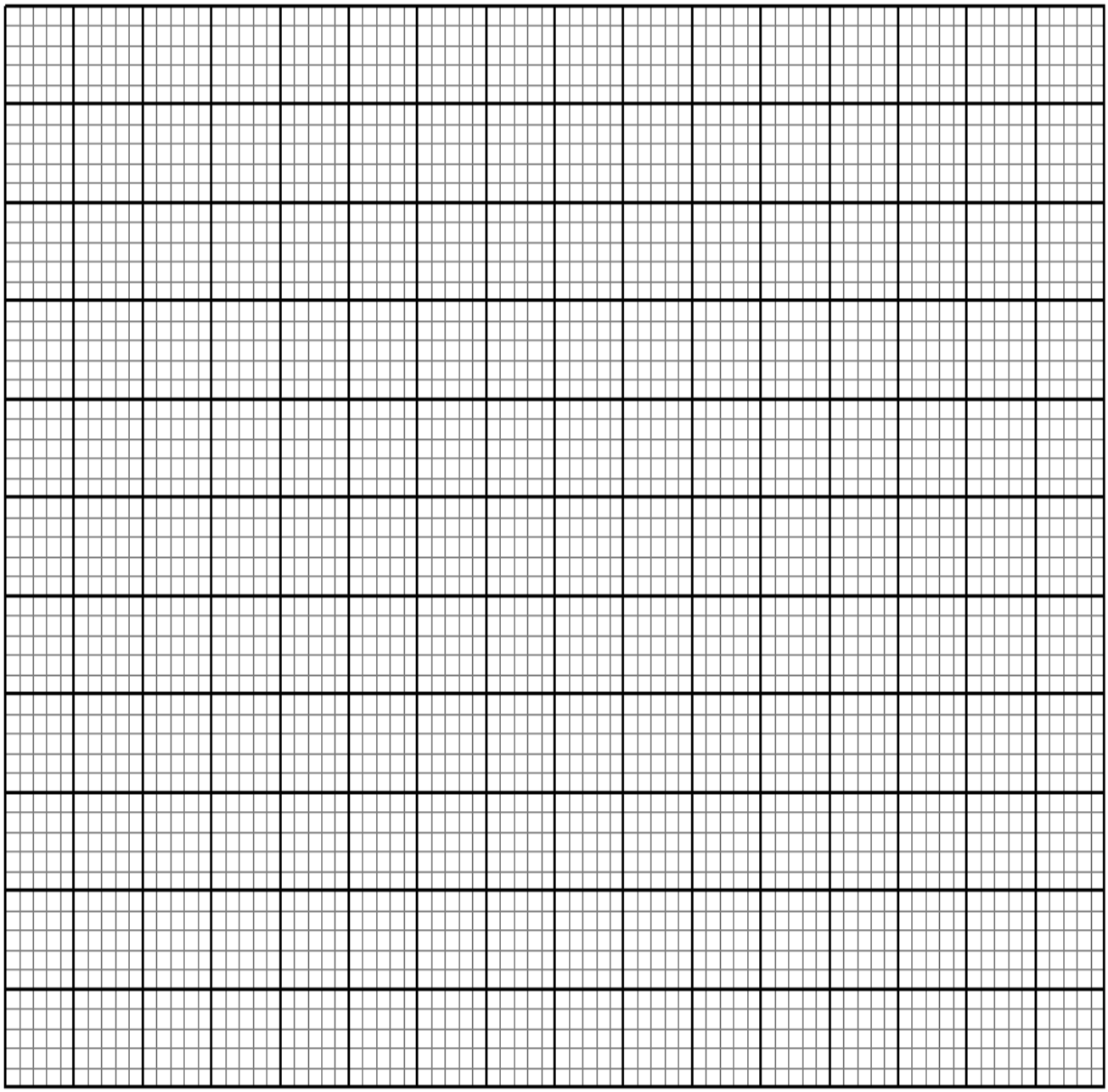
16. In the figure below triangle ABO represents a part of a school badge. The badge has as symmetry of order 4 about O. Complete the figure to show the badge. (3mks)



SECTION II (50MKS)

Answer 5 questions only in this section

17. The vertices of quadrilateral OPQR are O (0, 0), P (2, 0), Q (4, 2) and R (0, 3). The vertices of its image under a rotation are O' (1, -1), P'(1, -3) Q'(3, -5) an R'(4, -1).



(a) (i) On the grid provided, draw OPQR and its image O'P'Q'R' (2marks)

(b) (ii) By construction, determine the centre and angle of rotation. (3marks)

(c) On the same grid as (a) (i) above, draw O"P"Q"R", the image of O'P'Q'R' under a reflection in the line $y = x$ (3marks)

(d) From the quadrilaterals drawn, state the pairs that are:

(i) Directly congruent; (2marks)

(ii) Oppositely congruent (2marks)

18. A slaughter house bought a number of goats at Sh. 2000 each and a number of bulls at Sh. 15000 each. They paid a total of Sh. 190,000. If they bought twice as many goats and three bulls less, they would have saved Sh. 5000.

(a) If the number of goats and bulls bought were x and y respectively, write down two simplified equations involving the above information. (2mks)

(b) Solve the two equations above and hence find the number of each type of animals bought. (4mks)

(c) The slaughter house sold all the animals at a profit of 25% per goat and 30% per bull. Determine the total profit they made. (4 Marks)

19. a) In a safari rally drivers are to follow route ABCDA. B is 250km from A on a bearing of 075^0 from A. C is on a bearing of 110^0 from A and 280km from B. The bearing of C from D is 040^0 and a distance of 300km. By scale drawing show the position of the point A, B, C and D. (4mks)

b) Determine

(i) The distance of A from C. (2mks)

(ii) The bearing of B from C. (1mk)

(iii) The bearing of A from D. (1mks)

(iii) The distance A from D (2mks)

20.A saleswoman is paid a commission of 20% on goods sold worth over Ksh 100,000.She is also paid a monthly salary of Ksh 12,000.In a certain month, she sold 360 handbags at Ksh 500 each.

(i) Calculate the saleswoman's earnings that month. (3 mks)

(ii) The following month, the saleswoman's monthly salary was increased by 10%.Her to total earnings that month were Ksh17, 600.
Calculate the total amount of money received from the sales of handbags that month.(5mks)

(ii) The number of handbags sold that month. (2 mks)

21. Using a ruler and a pair of compasses only, draw a parallelogram ABCD, such that angle DAB = 75^0. Length AB = 6.0cm and BC = 4.0cm.
From point D, drop a perpendicular to meet line AB at N. (7 Marks)

(i) Measure length DN. (1 Mark)

(ii) Find the area of the parallelogram. (2 Marks)

22. Two cubes of length 5cm and 7cm are melted and cast into a single cube.
Determine the:

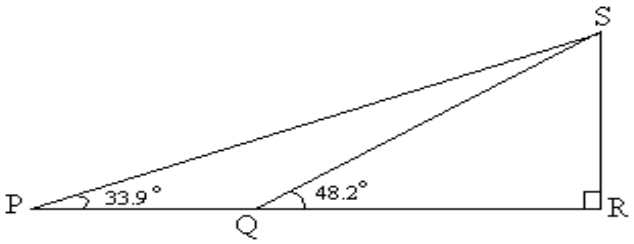
i. Volume of the new cube (3mks)

ii. Length of the new cube correct to 1 decimal place(2mks)

iii. Surface area of the new cube (2mks)

b. Suppose that it was instead cast into a cylinder of radius 3.5 cm. what would the height be to the nearest cm? Take $\pi = \frac{22}{7}$,(3 mks)

23. The diagram below shows vertical telephone pole RS supported by wires SP and SQ pegged at points P and Q respectively on a level ground. Points P and Q are on the same straight line from the base R of the pole. The angles of elevation of S from P and Q are 33.9^0 and 48.2^0 respectively. Given that PR = 5 m, calculate:

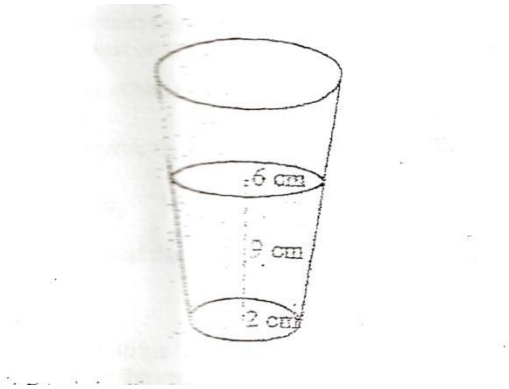


(a) The distance QR (4 marks)

(b) The length of the wires SP and SQ (4 marks)

(c)If the cost of the pole and labour is sh. 1600 and the cost of 1 meter of the wire is sh. 233. Find the total cost of the installation. (2 marks)

24. A glass in the form of a frustum of a cone, is represented by the diagram below. The glass contains water to a height of 9 cm. The bottom of the glass is a circle of radius 2 cm while the surface of the water is a circle of radius 6 cm.



(a) Calculate the volume of the water in the glass. (3Mks)

(b) When a special marble is submerged into the water in the glass, the water level rises by 1 cm. Calculate:

(i) the volume of the marble (4 marks)

(ii) the radius of the marble (3 marks)

NAME: ……..

ADM NO: …….. **CLASS: ……..……**

MID TERM II1

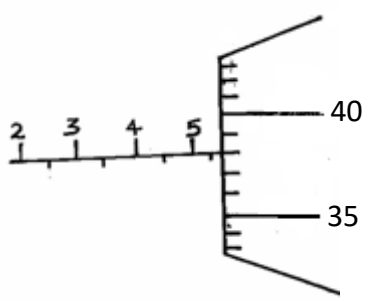
FORM 2 PHYSICS

TIME: 1 HOUR 45 MINS

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

SECTION A : (30 MARKS)

1.Figure 1 shows a micrometer with a negative error of 0.02mm used to measure the diameter of a ball bearing.



Record the diameter of the ball. (2mks)

……

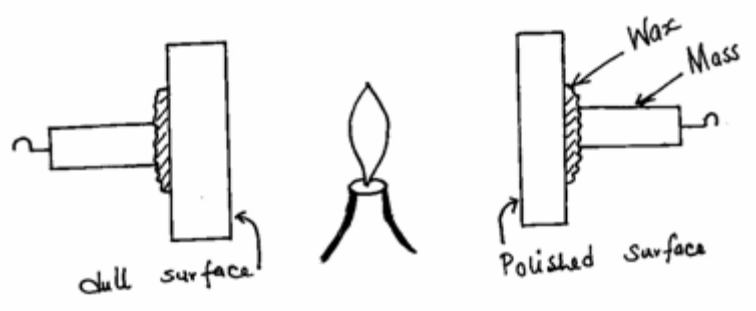
……

……

2. An oil drop of volume 0.4mm^3 was placed on a clean water surface. It spread to form a monoatomic circular patch of area 2000mm^2. Use this data to calculate the diameter of a molecule of oil. (3mks)

3. A fixed mass of pure water was cooled from 20°C to O°C. Sketch a graph of density of the water against temperature. (2mks)

4. Two 10g masses are fixed onto two similar aluminium plates, one polished and the other painted black, using wax as shown in the figure **below**.



Give and explain the observation made. (2mks)

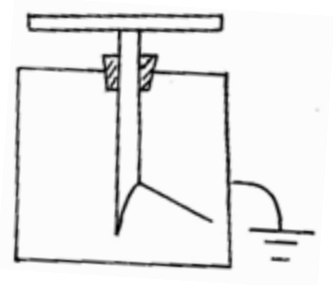
……

……

……

……

5.The figure **below** shows a charged leaf electroscope.



Given a dry glass rod and silk cloth, explain how you would determine the type of charge on the electroscope. (2mks)

……

……

……

6. State **two** advantages of alkaline accumulator over the lead-acid cell. (2mks)

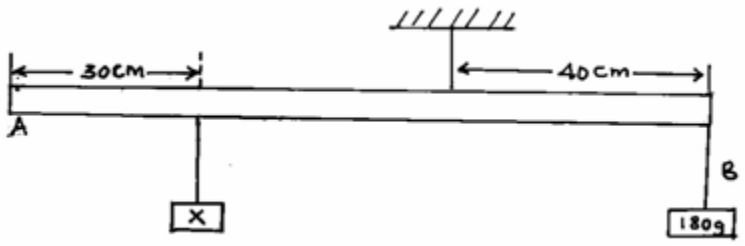
……

……

……

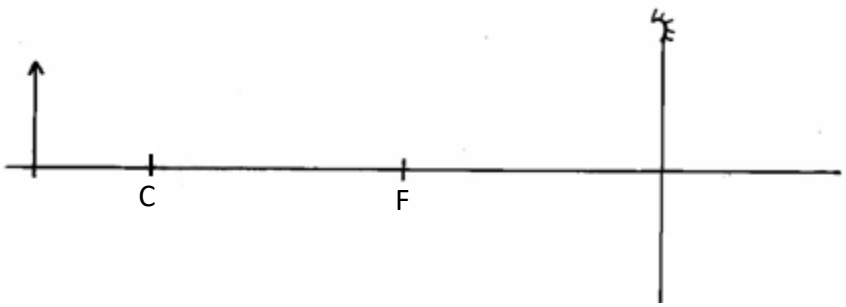
7. The figure **below** shows two magnets whose North poles are brought close to each other. Indicate the magnetic field pattern between the two magnets. (2mks)

8. The diagram shows a system in equilibrium with the uniform rule supported at Q and resting horizontally.



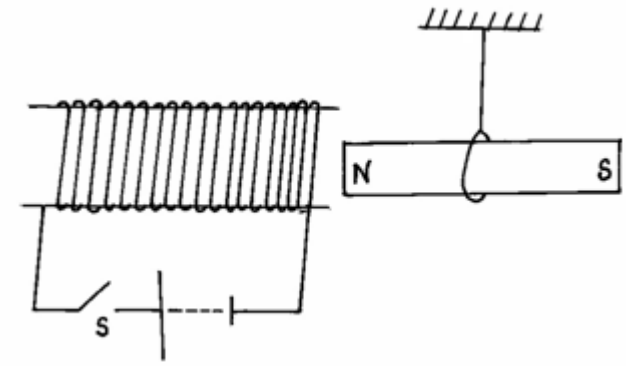
The rule is 1m long and weighs 1.8N. Calculate the weight of the block X. (3mks)

9. An object is placed infront of a concave mirror as shown in the figure **below**. Complete the diagram to show how the image is formed.
(3mks)

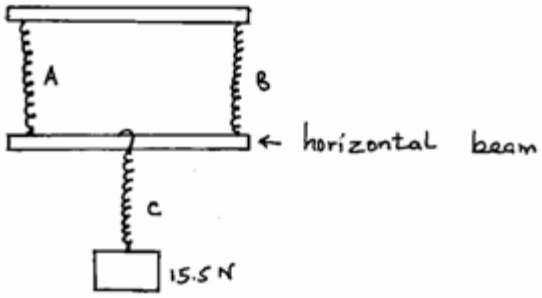


10. State and explain what will happen to the freely suspended magnet when the switch S is closed.

(2mks)



11. Three identical springs **A**, **B** and **C** are used to support a 15.5N weight as shown in the figure **below**.



If the weight of the horizontal beam is 0.5N, determine the extension of each spring given that 4N cause an extension of 1cm when using one spring. (3mks)

12. State **one** of the major differences between mechanical waves and electromagnetic waves. (2mks)

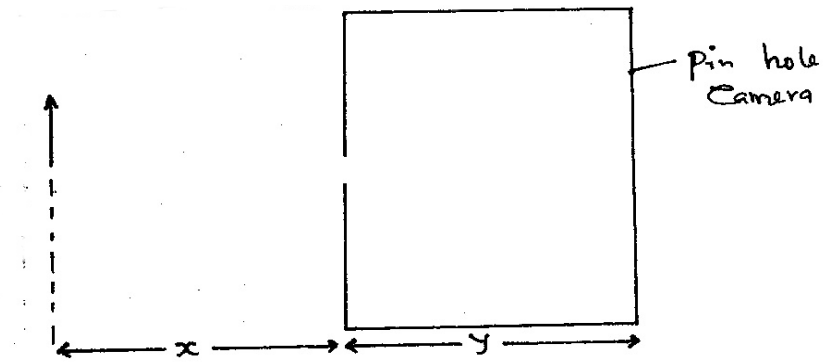
……

……

13. A boat sent an ultrasound signal to the bottom of the sea and its echo received after 10 seconds. If the wavelength of the ultrasound in water is 0.05m and the frequency of the transmitter is 50 KHz, calculate the depth of the sea. (3mks)

SECTION B: (40 MARKS)

14.(a) Complete the diagram **below** to show how an image is formed in a pinhole camera. (3mks)



(b) State **two** characteristics of the image above. (2mks)

……

……

……

(c) State **two** changes that will be observed about this image if the pinhole is made wider. (2mks)

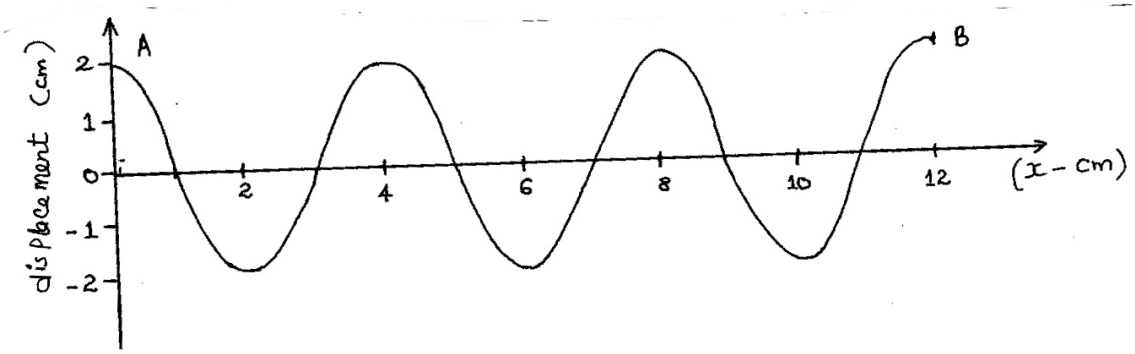
……

……

……

(d) If χ = 30cm, y = 12cm and the heights of the image is 4cm, calculate the height of the object. (3mks)

15. The diagram **below** shows the wave profile of a transverse wave.



(a) Determine

(i) the amplitude of the wave. (1mk)

(ii) the wavelength of the wave in metres. (2mks)

(iii) The period of the wave if it takes 1.5 seconds to move from **A** to **B**. (3mks)

(b) Calculate:

(i) the frequency of the wave. (2mks)

(ii) the velocity of the wave. (2mks)

16. (a) What is diffusion? (2mk)

……

……

……

……

(b) A smoke cell contain a mixture of trapped air and smoke. The cell is brightly lit and viewed through a microscope. State and explain what is observed. (2mks)

……

……

……

……

(c) A beaker is filled completely with water. A spoonful of common salt is added slowly.

The salt dissolves and the water does not overflow.

(i) State why the salt is added slowly. (1mk)

……

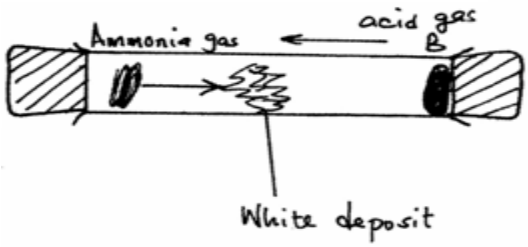
……

(ii) Why doesn't the water overflow? (1mk)

……

……

(d) In the figure **below**, ammonia gas and acid gas diffuse and react to form a white deposit on the walls of a long glass tube as shown.



(i) What conclusion can be made from this result of this experiment? (1mk)

……

……

(ii) How does the density of a gas affect the rate of diffusion? (1mk)

……

……

(iii) The experiment is performed at a lower temperature. State and explain what would happen to the rate of diffusion of the gases. (2mks)

……

……

……

……

17. (a) Give **four** differences between mass and weight. (4mks)

……

……

……

……

……

……..

……..

(b) Sate Pascal's Principal. (1mk)

……

……

……

(c) Name **two** applications of Pascal's Principle. (2mks)

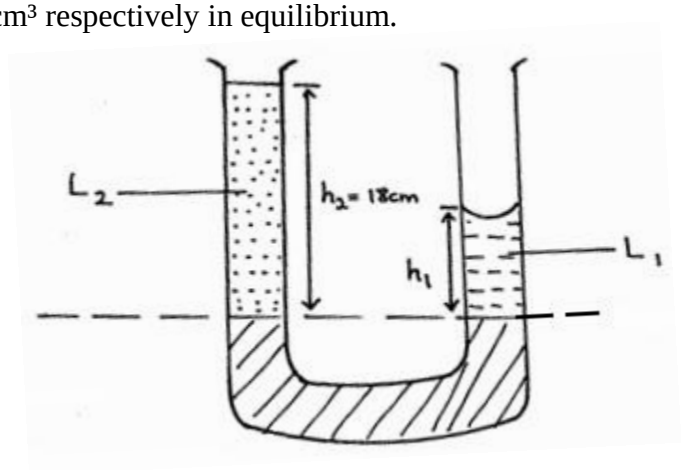
……

……

……

……

(d) Figure **3** shows a U-tube containing two liquids L_1 and L_2 of densities 1.6g/cm³ and 0.8g/cm³ respectively in equilibrium.



Given that h_2 = 18cm, determine the value of h_1. (3mks)


PREFER CALLING SIR OBIERO AMOS @
0706 851 439
FOR QUICK SERVICE
ACQUIRE THE FOLLOWING
KASNEB NOTES/REVISION KITS
NOW :
CPA
ATD
CS
CICT
CIFA
0706851439
By Sir Obiero Amos
Resources
&
AMOBI SOFT COPY PUBLISHERS
Transparency, Honesty and Accountability Defined
KASNEB
Study Materials
ATD
LEVEL 3
STUDY TEXT
PRINCIPLES OF ECONOMICS
CPA
SECTION 4
STUDY TEXT
CIFA
SECTION 1
STUDY TEXT
FINANCIAL MATHEMATICS
CS
SECTION 6
STUDY TEXT