LANJET CLUSTER MOCK

ALL SUBJECTS

SUBJECTS HIGHLIGHTED;

Mathematics, English, Kiswahili, Biology, Chemistry, Physics, CRE, History, Geography, Business Studies, Agriculture, French, Homescience &Computer Studies.

A Joint Cluster Examination Trial for KCSE Candidates among selected Top Performing National Schools in the Republic of Kenya.

SERIES 1

For Marking Schemes/Answers

CALL /WHATSAPP 0746 222 000

COMPILED BY MWALIMU AGENCY

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

231/1

BIOLOGY

PAPER 1

THEORY

TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES

- ***a)*** *Write your* ***name, Admission number and name of your school*** *in the spaces provided above*
- ***b)*** ***Sign*** *and write the* ***date*** *of examination in the spaces provided.*
- ***c)*** *Answer* ***all*** *the questions in the spaces provided.*
- ***d) Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing***

FOR EXAMINERS USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1-26	80	

*Answer **all** the questions in the spaces provided.*

1. a) Name the causative agents of the following diseases in humans.

i) Typhoid. **(1mk)**

……

……

ii) Amoebic dysentery. **(1mk)**

……

……

2. State the function of the following cell organelles.

i) Ribosome. **(1mk)**

……

……

ii) Lysosomes **(1mk)**

……

……

iii) Nucleolus. **(1mk)**

……

……

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

……

……

b) State **three** functions of blood other than transport. **(3mks)**

……

……

……

……

4. a) Distinguish between epigeal and hypogeal germination in plants. **(2mks)**

……

……

……

……

b) Name the gland that secretes the following hormones. **(2mks)**

i) Ecdysone

……

ii) Juvenile

……

5. a) Give two sex linked genes found on the Y-chromosome. **(2mks)**

……

……

b) Below is a nucleotide strand

A	A	G	T	C

i) Identify the type of nucleic acid. **(1mk)**

……

……

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

……

……

6. a) Distinguish between homologous and analogous structures. **(2mks)**

……

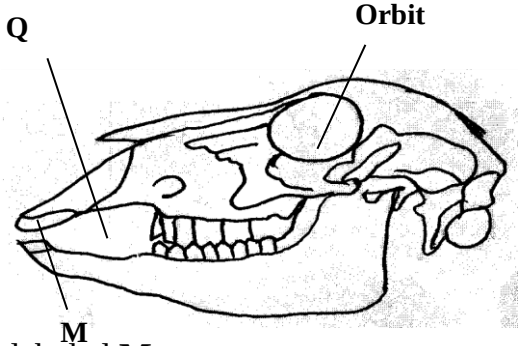
……

b) Give **one** reason why organisms become resistant to drugs. **(1mk)**

……

……

7. The following specimen was extracted from a newly discovered organism.



a) Name the tooth labeled **M**. **(1mk)**

……

b) Name the part labeled Q and state its role. **(2mks)**

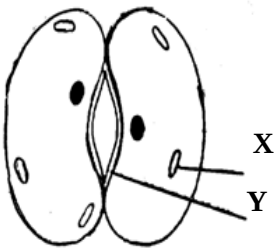
Name……..……

Role

……

……

8. The diagram below represents a cell organelle



a) Name the part labeled Y. **(1mk)**

……

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

……

……

c) Explain how dark stage of photosynthesis is dependent on the light stage. **(2mks)**

……

……

……

……

9. a) Name **two** gaseous exchange surfaces in plants. **(2mks)**

……

……

b) What is the importance counter current flow system in fish? **(2mks)**

……

……

10. Form three students wanted to estimate the population in $5km^2$ grass field near a school compound. They captured 36 grass hoppers and marked them before returning them to the field. After a few days they made another catch of grasshoppers. They collected 45 grasshoppers out of which only 4 had marks.

a) Name the method of population estimation the students used. **(1mk)**

……

b) State **two** assumptions that were made by the students during the study. **(2mks)**

……

……

……

c) From the data, calculate the population size of grasshopper. **(2mks)**

……

……

……

……

11. State the functions of the following parts. **(2mks)**

i) a) Endometrium

……

……

b) Epididymis

……

……

ii) What mechanism facilities the movement of the ovum towards uterus. **(1mk)**

……

……

12. The diagram below represents the flow of energy in a food chain.

Sun ⟶ Grass ⟶ Antelope ⟶ Leopard ⟶ Bacteria ⟶ **P**

a) Suggest a reason why the energy labeled P does not enter food chain **(1mk)**

……

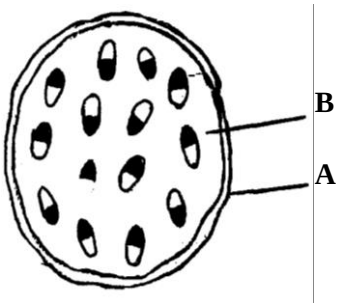
……

b) State **one** way in which energy is lost from the food chain. **(1mk)**

……

……

13. The diagram below represents the cross section of a part of a certain plant.



a) Name the class of the plant from which the section was taken. **(1mk)**

……

b) Give a reason for your answer in a) above. **(1mk)**

……

……

c) Name the parts labeled **A** and **B**. **(2mks)**

……

……

14. State **two** reasons why the study of biology is important. **(2mks)**

……

……

15. State the economic importance of the following plants excretory procedures. **(3mks)**

a) Caffeine

……

……

b) Quinine

……

……

c) Colchicine

……

……

16. Define the following terms

a) Irritability (1mk)

……

……

b) Stimulus **(1mk)**

……

……

17. A process that occurs in plants is replaced by the equation below

$C_6H_{12}O_6 \longrightarrow 2C_2H_5OH + CO_2 + Energy$

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

……

……

b) State the importance of the process named in a) above. **(2mks)**

……

……

18. a) What is Binomial Nomenclature? **(1mk)**

……

……

……

……

b) State **two** rules that are followed when printing scientific names. **(2mks)**

……

……

19. Name **three** strengthening tissues in dicolyledonous plants. **(3mks)**

……

……

……

20. Name the site for gaseous exchange in insects. **(1mk)**

……

……

21. a) What is alternation of generations **(2mks)**

……

……

b) Explain why leaves of Peridophytes are referred to as Fronds. **(1mk)**

……

……

22. State **four** adaptations of red blood cells to its functions. **(4mks)**

……

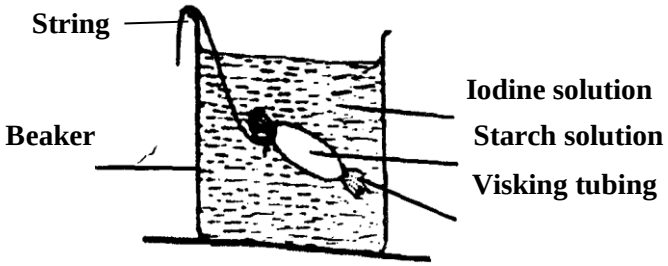
……

……

……

……

23. The experiment illustrated below was set up to investigate a certain physiological process



a) Name the physiological process that was being investigated. **(1mk)**

……

……

b) State the observations that were made after at the end of the experiment

(i) Inside the Visking tubing **(1mk)**

……

……

(ii) Outside the Visking tubing **(1mk)**

……

……

c) Account for the observations in b) above. **(2mks)**

……

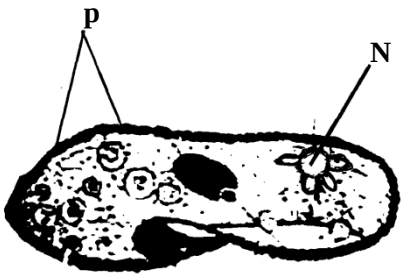
……

24. State the differences between the following structures in wind and insect pollinated flowers. **(3mks)**

(i) Anther
(ii) Pollen grains
(iii) Stigma

Wind Pollinated	Insect Pollinated flower

25. A student placed a drop of pond water in a cavity slide and observed it under the microscope. The student observed many fast moving organisms, one of which is represented in the diagram below.



a) Name the kingdom to which the organism belongs. **(1mk)**

……

b) Name the structures labeled **P** and **N** **(2mks)**

P……..

N……...

26. A person was found to pass out large volumes of dilute urine frequently. Name the;

a) Disease the person was suffering from **(1mk)**

……

b) Hormone that was deficient **(1mk)**

……

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

231/2

BIOLOGY

PAPER 2

THEORY

TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES

(a) *Write your name and index number in the spaces provided above.*

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

(c) *Answer all the questions in section A in the spaces provided*

(d) *In section B answer question 6 (compulsory) and either question 7 or 8 in the spaces provided after question 8.*

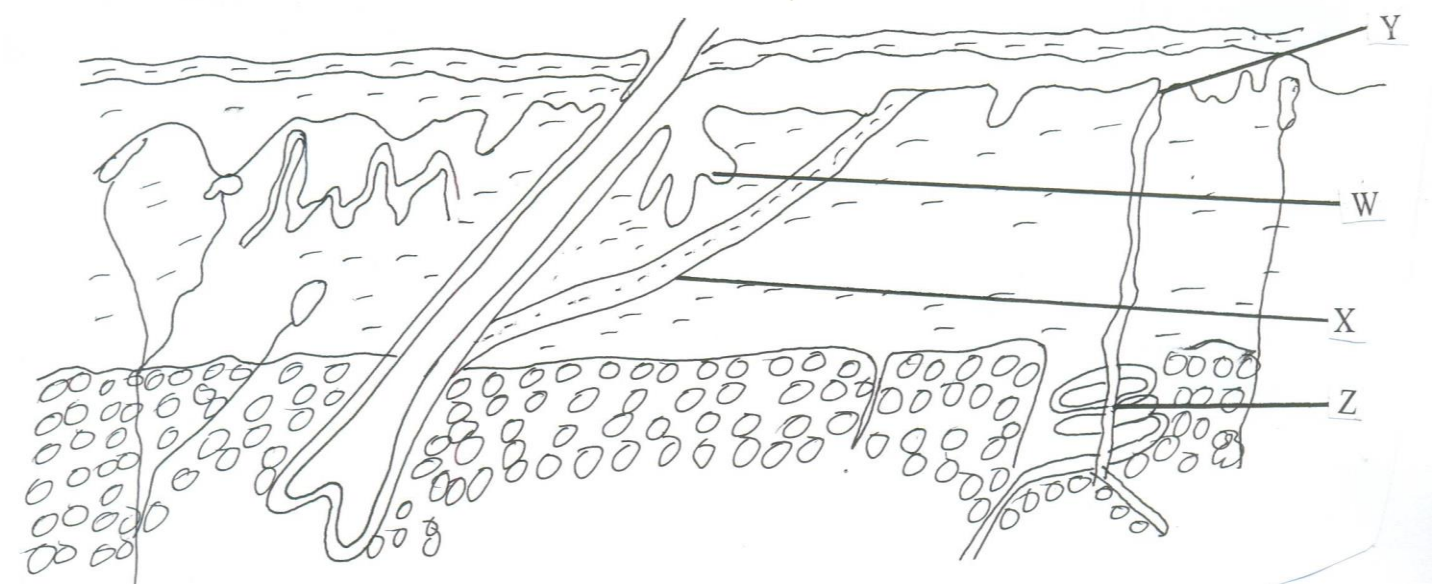
FOR EXAMINER'S USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1	8	
2	8	
3	8	
4	8	
5	8	
6	20	
	20	
Total score	80	

SECTION A 40 MARKS

Answer all the questions in this section in the space provided

1. The diagram below shows a section through the mammalian skin



(a) Name the parts labelled W and X **(2mks)**

W……

X ……

(b) State the function of the parts labelled Y and Z **(2mks)**

……

……

……

……

(c) Explain the changes that occur in the skin when it is cold **(4mks)**

……

……

……

……

……

……

……

2. (a) Eye colour in fruits flies is sex-linked. Red eye colour **R** is dominant to white eye colour **r**

A heterozygous red –eyed female fly was crossed with a white eyed male

(i) Show the parental genotypes **(1mk)**

……

……

(ii) By means of a genetic cross, determine the genotypic ratio of the offsprings **(4mks)**

(iii) Explain why the actual phenotype ratio obtained from this cross could differ from the Expected **(1mk)**

……

……

……

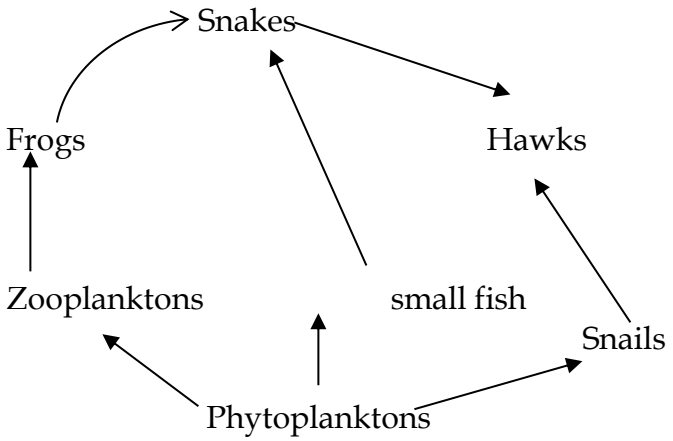
(b) Name two disorders due to non-disjuction **(2mks)**

……

……

……

3. The diagram below represents a feeding relationship in an ecosystem.



(a) Name the type of ecosystem represented by the above food web **(1mk)**

……

(b) Name the organism in the food web that

(i) Is a producer **(1mk)**

……

(ii) Occupies the highest tropic level. **(1mk)**

……

(c) (i) Write a food chain that ends with the hawk as a quarternary consumer. **(1mk)**

……

……

(ii) State two short terms effects on the above ecosystem if all the small fish were killed **(2mks)**

……

……

……

(d) (i) How does oil spills lead to death of fish? **(1mk)**

……

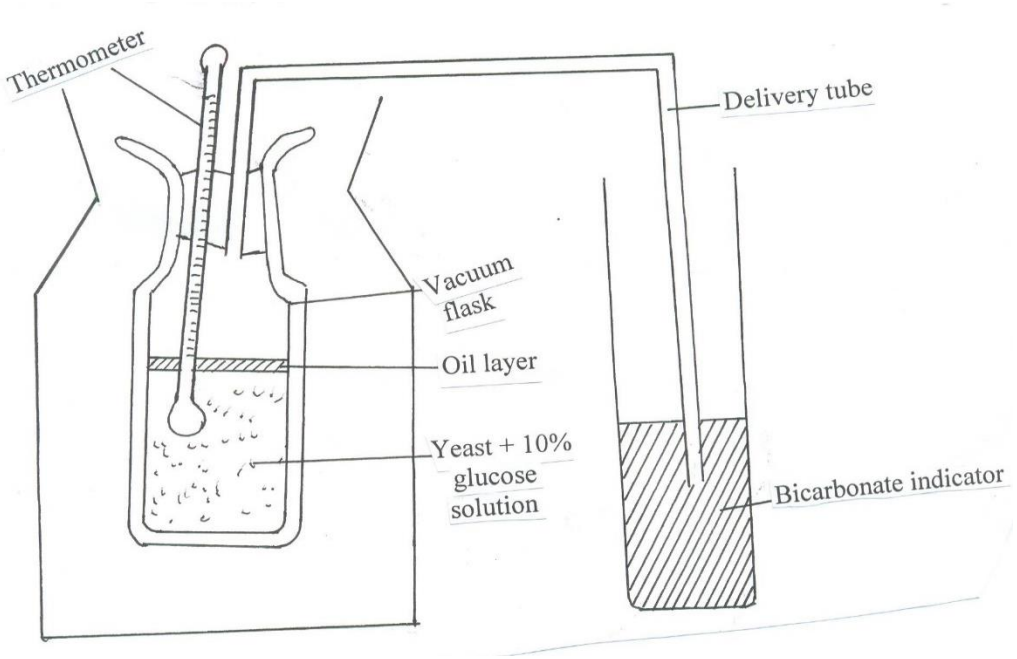
……

(ii) Name one other cause of water pollution apart from oil spills. **(1mk)**

……

……

4. The experiment below was set – up to investigate some physiological processes. The glucose solution was first boiled then cooled. The set up was left for 24 hours



(a) Suggest two aims of the experiment. **(2mks)**

……

……

(b) (i) State the expected observations after 24 hours **(2mks)**

……

……

(ii) Explain your observations in a (i) above **(2mks)**

……

……

……

(iii) Why was glucose solution boiled then cooled? **(1mk)**

……

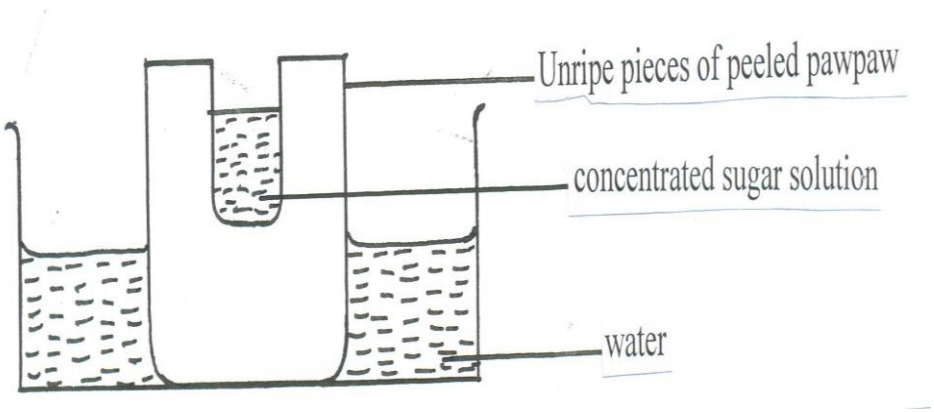
……

(c) Suggest a control for the above experiment. **(1mk)**

……

……

5. A group of students set up an experiment to investigate a certain physiological process. The set up was as shown in the diagram below.



After some time, the students observed that the level of sugar solution had risen

(a) What physiological process was being investigated. **(1mk)**

……

……

(b) Account for the rise in the level of sugar solution in this experiment. **(4mks)**

……

……

……

……

……

……

(c) (i) State the results that the students would obtain if they repeated the experiment using a piece of boiled pawpaw. **(1mk)**

……

……

(ii) Give a reason for your answer **(2mks)**

……

……

……

……

SECTION B (40 MARKS)

Answer questions 6 (compulsory) and either questions 7 or 8 in the spaces provided questions

6. During germination and growth of a cereal, the dry weight of endosperm, the embryo and the total dry weight were determined at two day intervals. The results are shown in the table below:

Time after planting (days)	Dry weight of endosperm (mg)	Dry weight of embryo (mg)	Total dry weight (mg)
0	43	2	45
2	40	2	42
4	33	7	40
6	20	17	37
8	10	25	35
10	6	33	39

a) Using the same axes, draw graphs of dry weight of endosperm, embryo and the total dry weight against time. **(7mks)**

b) What was the total dry weight on day 5 **(1mark)**

.....

c) Account for

i. Decrease in dry weight of endosperm from 0 to 10 **(2mks)**

……

……

……

ii. Increase in dry weight of embryo from day 0 to day 10 **(2mks)**

……

……

……

iii. Decrease in total dry weight from day 0 to day 8 **(1mk)**

.....

.....

.....

iv. Increase in total dry weight after day 8 **(1mk)**

.....

.....

d) State two factors within the seed and two outside the seed that cause dormancy

i. Within the seed. **(2mks)**

.....

.....

.....

ii. Outside the seed **(2marks)**

.....

.....

.....

e) Give two characteristics of meristematic cells **(2mks)**

.....

.....

.....

7. **(a)** Describe the process of fertilization in flowering plants **(15mks)**

(b) State the changes that take place in a flower after fertilization **(5mks)**

8. **(a)** Describe the mechanism of inhalation in man. **(10mks)**

(b) Using photosynthesis theory explain the mechanics of opening of stomata. **(10mks)**

……

……

……

LANJET JOINT MOCK

SERIES 001

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

BIOLOGY

PRACTICAL

CONFIDENTIAL

Paper 3

Confidential

The information contained in this paper is to enable the head of the school and the teacher in charge of Biology to make adequate preparations for the Biology practical examination.

Each Candidate will Require:-

1) L1 – Sodium hydrogen carbonate solution supplied with a dropper.

2) L2 – starch solution supplied with a dropper

3) (Olive) oil supplied with a dropper.

4) Benedict's solution supplied with a dropper.

5) Iodine solution supplied with a dropper

6) 5 clean test tubes.

7) Irish potato

8) Scalpel

9) Amylase solution

10) 4 labels

11) Motar and pestle

12) Distilled water in a wash bottle

13) A 30cm transparent ruler

14) 10ml measuring cylinder

15) Means of timing e.g. clock / stop watch.

16) Means of heating.

17) Hibiscus flower marked K

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

231/3

BIOLOGY

PAPER 3

(Practical)

TIME: 1 ¾ HOURS

INSTRUCTIONS TO CANDIDATES

1. *Answer all the questions.*

2. *Spend the first 15 minutes of the 1 ¾ hours allowed for this paper reading the whole paper carefully before commencing your work.*

3. *Answers MUST be written in the spaces provided in the Question Paper Only.*

FOR EXAMINERS USE ONLY

QUESTION	Max Score	Candidate Score
1	14	
2	12	
3	14	
TOTAL SCORE	40	

1. You are provided with olive oil, liquids labeled L_1 and L_2, and an Irish potato. Label test tubes A and B. Place $2cm^3$ of water into each test tube. Add 8 drops of olive oil into each test tube. To test tube A, add 8 drops of liquid L. Shake both test tubes. Allow to stand for 2 minutes.

(a) (i) Record your observations ***(2 marks)***

Test Tube **A**

……

……

Test Tube **B**

……

(ii) Name the process that has taken place in test tube A ***(1 mark)***

……

(iii) State the significance of the process named in (a) above ***(1 mark)***

……

(v) Name the digestive juice in humans that has the same effect on oil as liquid L_1 ***(1 mark)***

……

(v) Name the region of the alimentary canal into which the juice is secreted ***(1 mark)***

……

(b)

(i) Label two test tubes C and D place $2cm^3$ of liquid L2 into each test tube. Add a drop of iodine solution into each test tube. Record your observations. ***(1 mark)***

……

……

(ii) Suggest the identity of L_2 ***(1 mark)***

……

(iii) Cut a cube whose sides are $1cm^3$ from the Irish potato. Crush the cube to obtain a paste. Place the paste into a test tube labeled C. add 2cm3 of amylase solution. Leave the set up for at least 30 minutes.

Record your observations ***(2 marks)***

C

……

D

……

(iv) Account for the result in (b)(iii) above ***(2 marks)***

……

……

(c) Cut another cube whose sides are 1cm from the Irish potato. Crush the cube. Place the crushed paste into a test tube. Carry out food test with reagents provided. Record your procedure and results.

Procedure: ***(1 mark)***

……

……

Results: ***(1 mark)***

……

……

2. You are provided with specimen **K**. Use it to answer the questions that follow

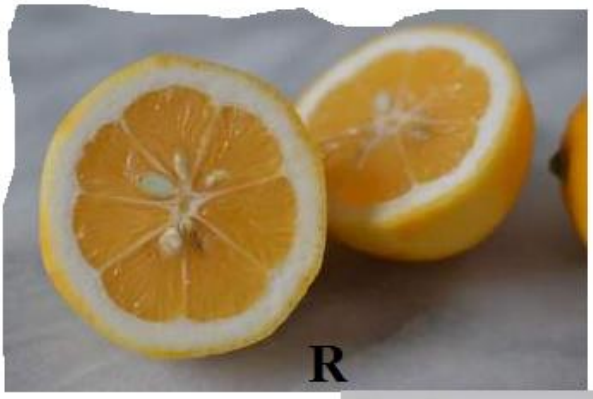
a) Cut the specimen **K** longitudinally. Draw one of the sections **(4marks)**

b) With a reason state the agent of pollination **(1mark)**

……

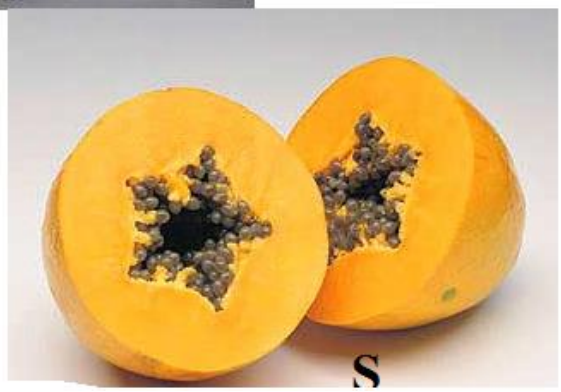
……

c) The photographs labelled **Q, R**,and **S** are sections of some plant parts.





Q



(i) Name the type of placentation in the specimens shown in photographs **Q, R** and **S** **(3 marks)**

Q……

R……

S……

(ii) Giving a reason in each case, name the mode of dispersal of the specimen in photograph **Q** and **S**

(4mark)

Q

Mode……..…….

Reason

……

……

S

Mode…..……

Reason

……

……

……

3. Study photographs shown below then answer the questions.



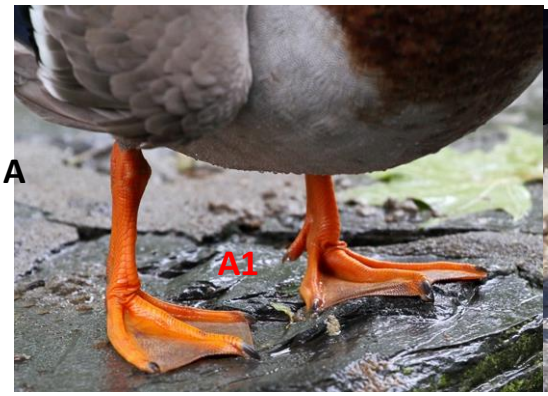


R

S



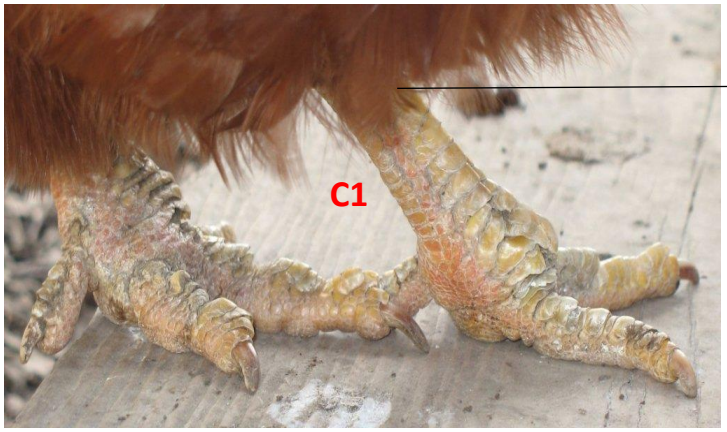
A





B

C



(a) State the type of evolution represented by structures **Q1**, **R1** and **S1**. **(1mk)**

……

b) Explain the type of evolution identified in (a) above. **(1mk)**

……

(c) Give the evolution term used to describe structures;

(i) **Q1, R1** and **S1.** **(1mk)**

(ii)**A1**, **B1** and **C1.** **(1mk)**

d). what type of evolution is illustrated by the limbs (**A1**, **B1** and **C1**)? **(1mk)**

……

e). (i) Name classes for organisms labeled Q**, R** and **S.**

Q……..…… **(1mk)**

R……...…… **(1mk)**

S……...… **(1mk)**

(ii) Give two reasons for placing **S** in the class above **(2mks)**

……

……

……

f) (i) Suggest the diet of animals **B** and **R**.

B……..…… **(1mk)**

R……..…….... **(1mk)**

(ii) How is beak of animal **B** adapted to its function? **(2mks)**

……

……

……

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

233/1

CHEMISTRY

PAPER 1

THEORY

TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

*(i) Write your **name** and **index number** in the spaces provided **above**.*

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

*(iii) Answer **ALL** the questions in the spaces provided.*

*(iv) Mathematical tables and silent electronic calculators **may be** used.*

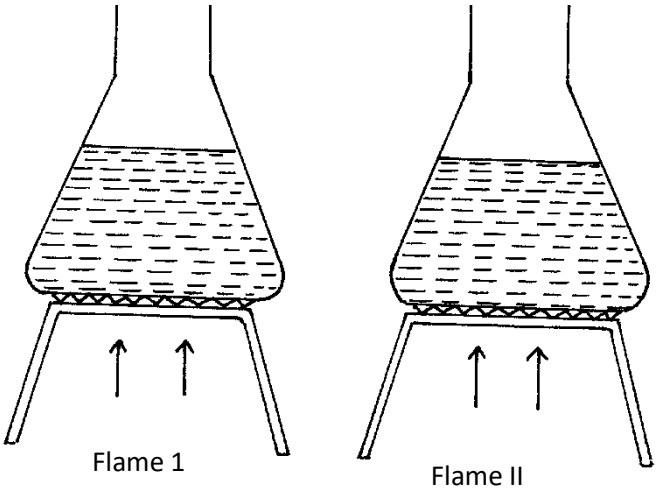
*(v) All working **must be** clearly shown where necessary.*

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

FOR EXAMINER'S USE ONLY

Questions	Maximum Score	Candidate's Score
1 –30	80	

1. The samples of equal volumes of water were put in 100cm^3 conical flasks and heated for 5 minutes on a Bunsen flame. It was observed that sample 1 registered a low temperature than sample II



(a) Name flame I **(1mk)**

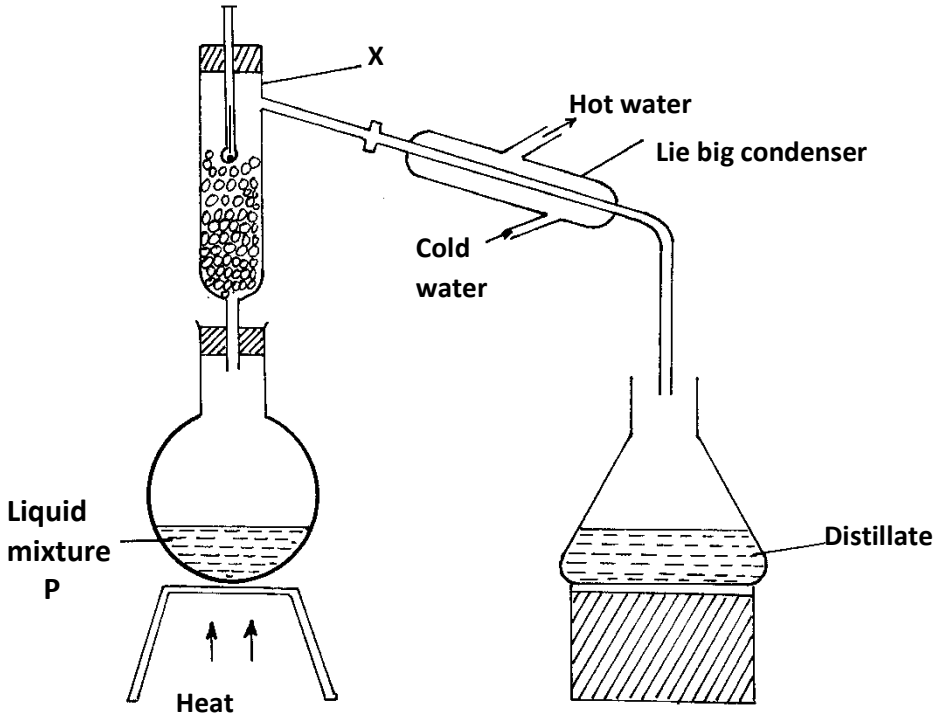
……..

(b) State one disadvantage of using flame I for heating **(1mk)**

……..

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

The diagram shows the method used to separate component of mixture P



(a) Name X **(1mk)**

……..

(b) What is the name given to the method used in separation of mixture P **(½mk)**

……

(c) What would happen if the inlet and outlet of water were interchanged **(½mk)**

……

……

(d) Which physical property is used to separate mixture P **(1mk)**

……...

3. The table below shows the solubility of three solids P, Q, and R.

Solid	**Cold Water**	**Hot Water**
P	soluble	soluble
Q	insoluble	insoluble
R	Insoluble	soluble

How would you obtain pure samples of R,P and Q **(2mks)**

……

……

……

4. State why a water molecule H_2O can combine with H^+ ion to form H_3O^+ ion **(1mk)**

……

……

5. The P^H values of some solutions are given below

P^H	14.0	1.0	8.0	6.5	7.0
Solution	M	L	N	P	Z

(a) Identify the solution with the lowest concentration of hydrogen ion. Give reason for your answer **(1mk)**

……

(b) Which solution would be used as an anti-acid for treating stomach upset. Give for your answer **(1mk)**

……

……

6. The data below gives the electronic configuration of some selected atoms and ions

Atom/ion	A^{2+}	B	C^{2-}	D^{2+}	E	F^{-}	G^{+}	H
Electronic configuration	2	2.4	2.8	2.8.8	2.8	2.8.8	0	2.8.2

(a) Select an atom that is a noble gas **(1mk)**

……

(b) What is the atomic number of C and A **(1mk)**

……

……

(c) Select an element that belong to group 2 and period four **(1mk)**

……

……

(d) Write the formula of the compound formed when D and F react **(1mk)**

……

……

7. Helium is used instead of hydrogen in balloons for metrological research. **Explain** **(1mk)**

……

……

8. Zinc metal and hydrochloric acid reacts according to the following equation

$Zn_{(s)} + 2HCl_{(aq)} \longrightarrow ZnCl_{2\,(aq)} + H_{2\,(g)}$

1.96g of Zinc metal were reacted with $100cm^3$ of 0.2M hydrochloric acid

a) Determine the reagent that was in excess **(2mks)**

Zn=65.2; Molar gas volume at s.t.p 22.4 liters

……

……

……

(b) Calculate the total volume of hydrogen gas that was liberated at s.t.p **(1mk)**

……

……

……

9. Give the IUPAC names of the following compounds **(1mk)**

(i) .$CH_3CH_2CH_2CH(CH_3)CH_3$ ……

(ii) $CH_3CH=CHCl$ …… **(1mk)**

10. 0.9g of potassium chloride and potassium carbonate mixture completely reacted with 25cm^3 of 0.2M hydrochloric acid

(i) Write an equation of the reaction which takes place **(1mk)**

……

……

(ii) Determine the number of moles of the acid used **(1mk)**

……

……

……

(iii) Calculate the mass of potassium chloride in the mixture (K=39.0; C=12.0; O=16.0) **(2mks)**

……

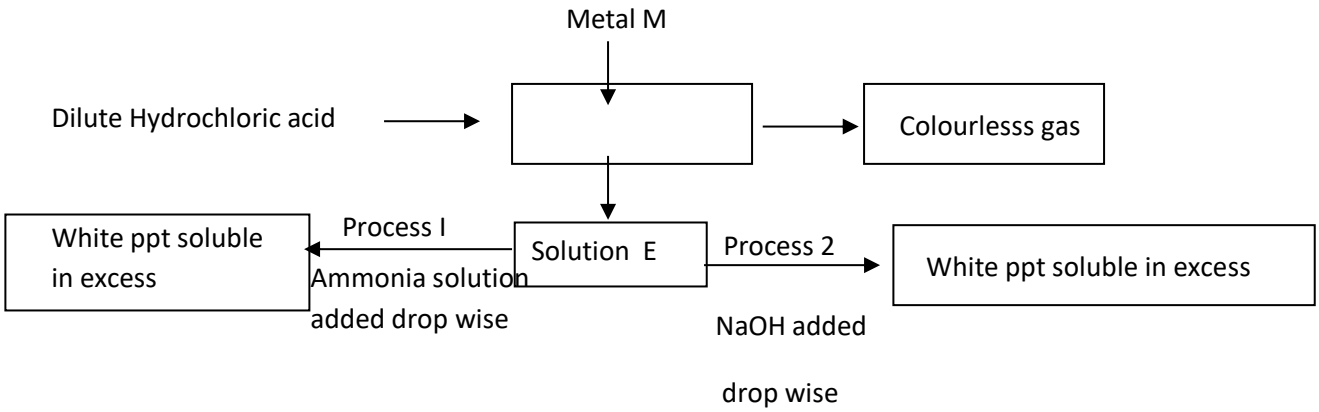
……

……

……

……

11. Study the flow chart below and answer the questions that follow



(i) Identify metal M: ……. **(1mk)**

(ii) Colourless gas: ……. **(1mk)**

(iii) Write an equation that leads to the formation of white precipitate in process

……

12. a) Define the term dynamic equilibrium **(1mk)**

……

……

b) A reaction at equilibrium can be represented as

$2CrO^{2-}_{4[aq]} + 2H^{+}[aq] \rightleftharpoons Cr_2O7\ ^{2}{}_{[aq]} + H_2O_{\{l\}}$

Yellow orange

State and explain the observation made when NaOH is added to the equilibrium mixture **(2mks)**

……

……

……

……

13. Few drops of hydrochloric acid were added into a test tube containing lead {II} Nitrate solution

a) State one observation **made** **(1mk)**

……

b) Write an ionic equation of the reaction that occurred in the test **tube** **(1mk)**

……

14. A compound of carbon, hydrogen and oxygen contains 57.15% carbon, 4.76% hydrogen and the rest oxy gen. If its relative molecular mass is 126, find its molecular formula. (**C = 12, H = 1, O = 16)** **(3mks)**

……

……

……

……

……

15. Study the information in the table below and answer the questions that follow.

Salt	Solubility g/100g of water	
	At 40°C	At 60°C
$CuSO_4$	28	38
$Pb(NO_3)_2$	79	98

A mixture containing 35g of $CuSO_4$ and 78g of $Pb(NO_3)_2$ in 100g of water at 60°C was cooled to 40°C.

i) Which salt crystallized out? Give a reason. **(2 marks)**

……

……

ii) Calculate the mass of the salt that crystallized out. **(1 mark)**

……

……

16. a) Distinguish between strong and concentrated acid **(1mk)**

……

……

……

b). A solution of ammonia in methylbenzene has no effects on red litmus paper while a solution of ammonia in water turns red litmus paper blue. Explain **(2mks)**

……

……

……

……

17. Name the process which takes place when

i. Iodine changes directly from solid to **gas** **(1mk)**

……..

ii. $Fe^{2+}_{(aq)}$ changes to $Fe^{3+}_{(aq)}$ **(1mk)**

……

iii. White sugar changes to black when mixed with concentrated sulphuric (VI) acid (1mk)

……

18. In the last stage of the solvay process, a mixture of sodium hydrogen carbonate and ammonium chloride is formed

a) State the method of separation used **(1mk)**

……..

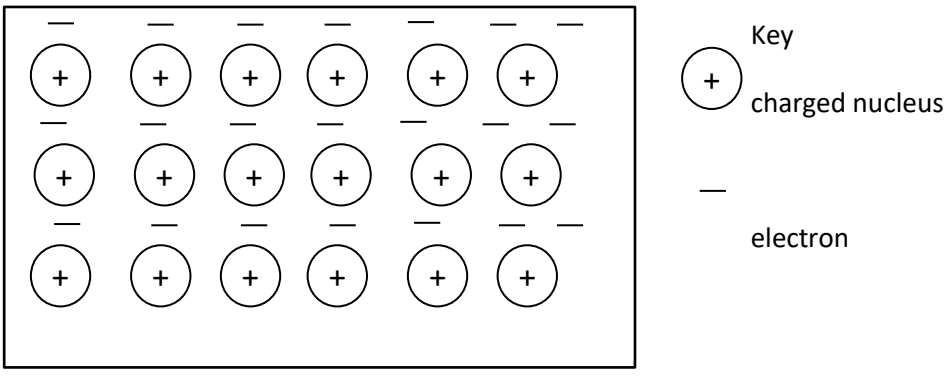
b) Write an equation showing how lime is slaked **(1mk)**

……..

c) Name the by- product recycled in the above process **(1mk)**

……..

19. The diagram below is a section of a model of the structure of element K



a) State the type of bonding that exist in K **(1mk)**

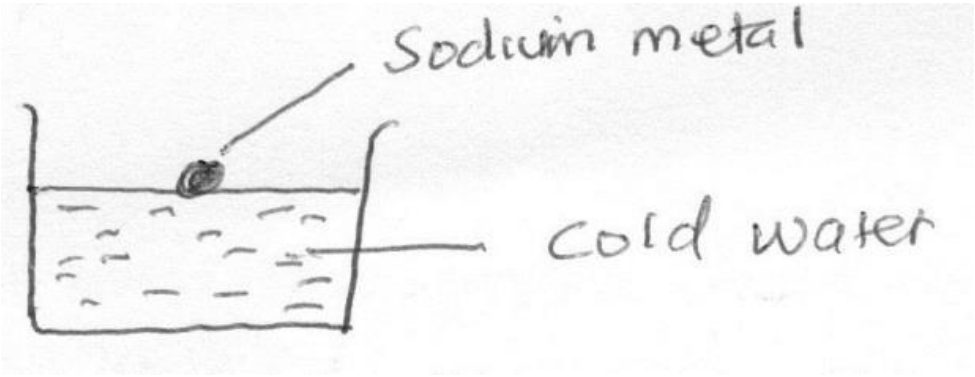
……

b) In which group of the periodic table does element K belong. Give a reason **(2mks)**

……

……

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



a) State two observations made in the above experiment when sodium react with water **(2 mks)**

……

……

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

……

21. (a) Explain why permanent hardness in water cannot be removed by boiling **(2mks)**

……

……

……

(b) Name two methods that can be used to remove permanent hardness from water **(1mk)**

……

……

22. Write an equation to show the effect of heat on the nitrate of: - **(2mks)**

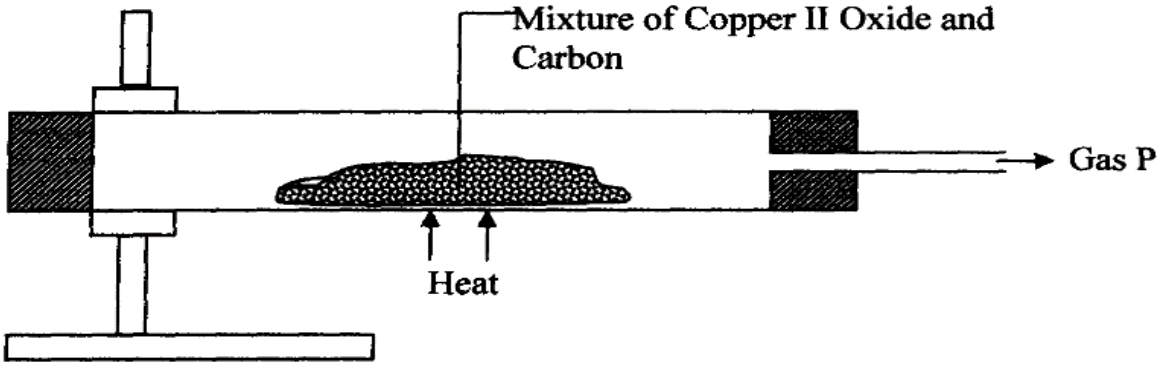
i) Potassium

……..

(ii) Silver

……..

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



(a) State the observation made in the combustion tube. **(1mk)**

……

……

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

……

(c) Name gas **P** **(1mk)**

……

24. Sulphur exists in two crystalline forms.

a) Name **one** crystalline form of Sulphur. **(1mk)**

……

b) State **two** uses of Sulphur. **(2mks)**

……

……

25. Bond energies for some bonds are tabulated below: -

BOND	BOND ENERGY KJ/mol
H – H	436
C = C	610
C- H	410
C – C	345

Use the bond energies to estimate the enthalpy for the reaction. **(3mks)**

$C_2H_{4(g)} + H_{2(g)} \longrightarrow C_2H_{6(g)}$

……

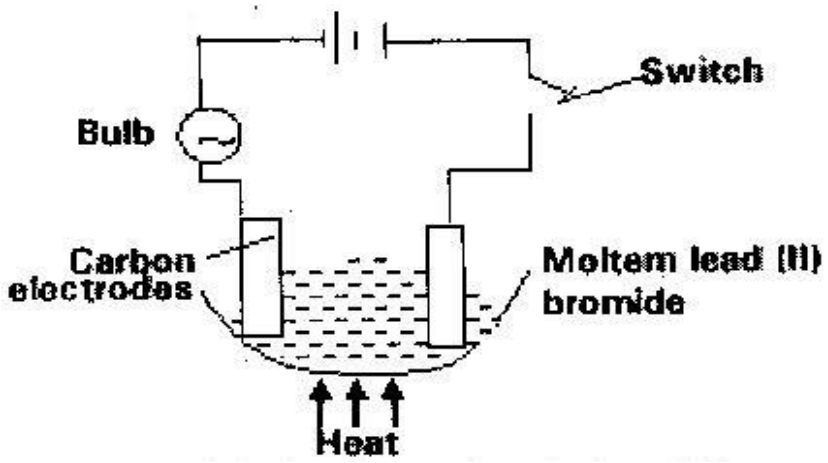
……

……

……

……

26. Study the set up below and answer the questions that flows



State all the observations that would be made when the circuit is completed **(3mks)**

……

……

……

……

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

……

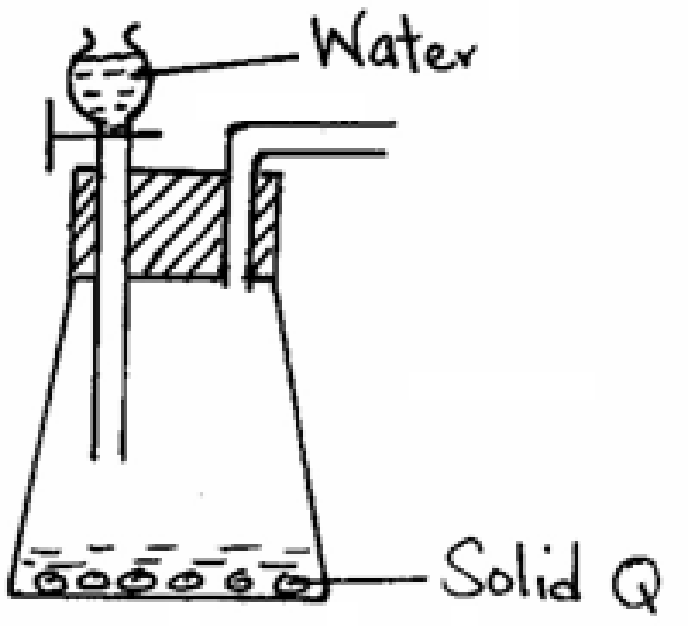
……

……

……

……

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



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

……..

(b) Complete the set-up to show how oxygen gas is collected. **(1mk)**

(c) Write the equation for the reaction that occur. **(1mk)**

……

29. Two reagents that can be used to prepare chlorine gas are potassium manganate (VII) and hydrochloric acid.

(a) Write an equation for the reaction. **(1mk)**

……..

b) Give the formula of another reagent that can be used instead of potassium manganate (VII). **(1mk)**

……..

(c) Using an equation illustrate how chlorine bleach coloured substances. **(2mks)**

……

……

……

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

233/2

CHEMISTRY

PAPER 2
THEORY
TIME: 2 HOURS

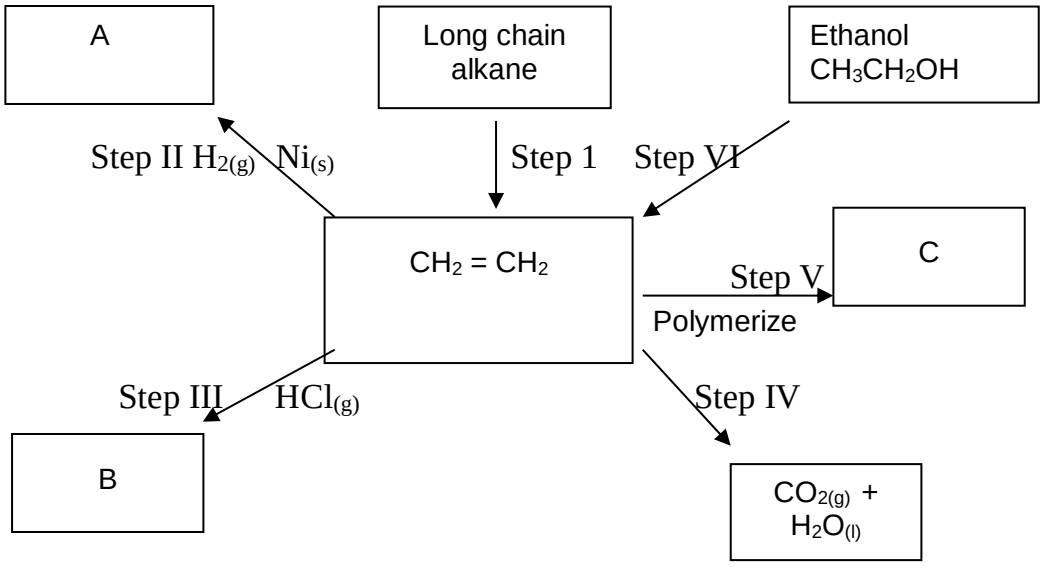
INSTRUCTIONS TO CANDIDATES

- *Write your **Name, Admission Number** and **School** in the spaces provided above.*
- *Answer **all** the questions in the spaces provided after each question.*
- *Mathematical tables and non-programmable electronic calculators may be used.*
- ***ALL** working must be clearly shown where necessary.*

FOR EXAMINER'S USE ONLY

QUESTIONS	MAX SCORE	CANDIDATE'S SCORE
1	12	
2	12	
3	10	
4	11	
5	14	
6	10	
7	11	
TOTAL	**80**	

1. (a) Study the flow chart below and answer the questions that follow.



(i) Name the process taking place in step (I). **(1mark)**

……

(ii) Describe a chemical test that can be carried out to show the identity of organic compound A.

(2marks)

……

……

……

……

(iii) Give the name of the following:

(2marks)

I. A:……

II. B:……

(iv) Give the structural formulae of substance C. **(1mark)**

……

……

(v) Name the type of reaction that occurs in:

I. Step IV **(2marks)**

……

II. Step VI:

……

(vi) Give the reagent and the condition necessary for step VI. **(2marks)**

Reagent:……

Condition:……

(b) Give the systematic names of the following compounds:

I. $CH_2CHCHCH_2CH_3$ **(1mark)**

……

II. $CH\ C\ CH_3$ **(1mark)**

……

2. a) The results below were obtained in an experiment conducted by form 3 students from Tigityo Secondary school using Magnesium.

- Mass of the crucible + lid = 19.52g
- Mass of the crucible + lid + Magnesium Ribbon = 20.36g
- Mass of the crucible + lid + Magnesium oxide = 20.92g

(i) Use the results to find the percentage mass of Magnesium & Oxygen in Magnesium oxide **(2 marks)**

……

……

……

……

(ii) Determine the empirical formula of magnesium oxide. (Mg=24.0,O=16.0) **(3 marks)**

……

……

……

……

……

……

b) Sodium hydroxide pellets were accidentally mixed with sodium chloride 8.8g of the mixture were dissolved in water to make one litre of solution. 50cm^3 of the solution was neutralised by 20cm^3 of 0.25M sulphuric acid.

(i) Write an equation for the reaction that took place. **(1 mark)**

……

(ii) Calculate the:

I. number of moles of the substance that reacted with sulphuric acid. **(2 marks)**

……

……

……

II. number of moles of the substance that would react with sulphuric acid in the one litre solution **(2 marks)**

……

……

……

(iii) the percentage of sodium chloride in the mixture. **(2 marks)**

(H=1.0; Na=23.0; Cl=35.5; O=16.0)

……

……

……

3. a) Study the table below and answer the questions that follow

Bond type	bond energy $kJmol^{-1}$
C-C	346
C = C	610
C-H	413
C-Br	280
Br-Br	193

i) Calculate the enthalpy change for the following reaction **(3 marks)**

$$C_2H_{4(g)} + Br_{2(g)} \longrightarrow C_2H_4Br_{2(g)}$$

……

……

……

……

……

ii) Name the type of reaction that took place in (a) above **(1mark)**

……

b) Butane C_4H_{10} cannot be prepared directly from its elements but its standard heat of formation (ΔH_f^θ) can be obtained indirectly.

The following heats of combustion are given.

ΔH_C^θ (Carbon) = -393kJ/mol

ΔH_C^θ (Hydrogen) = -286kJ/mol

ΔH_C^θ (Butane) =-2877kJ/mol

i) Draw an energy cycle diagram linking the heat of formation of butane with its heat of combustion and the heat of combustion of its constituents elements. **(1mark)**

……

……

……

……

ii) Calculate the heat of formation of butane ΔH_f^θ (C_4H_{10}) **(2marks)**

……

……

……

……

c) Given that the lattice enthalpy of potassium chloride is +690kJ/mol and hydration enthalpies of K^+ and Cl^- are -322kJ and -364kJ respectively. Calculate the enthalpy of solution of potassium chloride. **(3 marks)**

……

……

……

……

4. (a) Name two apparatuses that can be used for determining accurate volume in a laboratory **(2marks)**

……

……

(b) One of the flames produced by Bunsen burner is the luminous flame

i) Explain why this flame is very bright **(1mark)**

……

……

ii) State two disadvantages of the luminous flame **(2marks)**

……

……

(c) Air is usually one of the substances that is considered as a mixture

(i) Identify the two most abundant component of air **(2marks)**

……

……

(ii) Give two reasons why the air is considered as a mixture **(2marks)**

……

……

(iii) One of the components of air is carbon (iv) oxide. Describe an experiment that can be used to prove the presence of carbon (iv) oxide in the air **(2marks)**

……

……

……

……

5. The grid below forms part of the periodic table. Study it and answer the questions that follow. The letters do not represent the actual symbols of the elements

P				T	V	W	Y	M
	Q		S	U		X		
	R						Z	

a) Write the general name given to the element P belong. **(1mark)**

……

b) An element N has an atomic number of 15. Write down its electronic arrangement and hence fix it in its right position on the grid above. **(2marks)**

Electronic arrangement ……

c) Compare the size of the atom of R and that of its ion. Explain your answer. **(2marks)**

……

……

……

……

d) Give the formula of the compound formed between **(1mark)**

i. P and W ……

ii. T and Y ……..

e) Compare the melting points of element Q and S. Explain **(2marks)**

……

……

……

f) State the least reactive element in the grid. Give a reason for your answer **(2marks)**

……

……

g) Give two advantages that element S has over element Q in making electric cables **(2mks)**

……

……

h) Draw (a) dot (.) and cross (x) diagram to represent the bonding in compound formed between T and Y **(2 marks)**

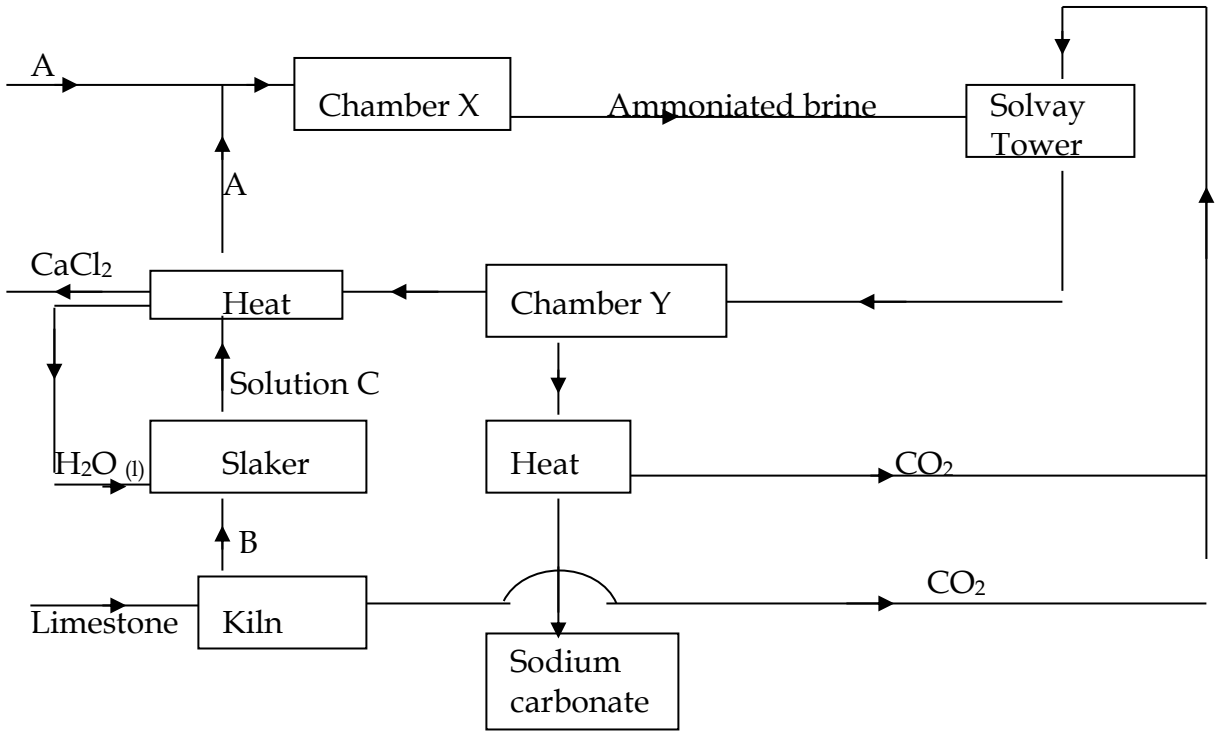
……

……

……

……

6. The chart below represents the main steps in the large-scale manufacture of sodium carbonate.



Name substances A and B.

A …… **(1 mark)**

B …… **(1 mark)**

(b) Write down the chemical equation leading to formation of C. **(1 mark)**

……

(c) A stream of cold water is made to circulate around chamber X. What does this

suggest about the reaction taking place. **(1 mark)**

……

(d) Name the process that takes place in chamber Y. **(1 mark)**

……

(e) State any 2 by-products recycled in the process. **(2 marks)**

……

……

(f) In an experiment, wood charcoal was mixed with concentrated sulhuric (VI) acid in a test-tube. The mixture was then placed over a Bunsen-burner flame for sometime.

(i) Write down the chemical equation of the reaction that takes place. **(1 mark)**

……

(ii) State the property of concentrated sulphuric (VI) acid investigated in (i) above. **(1 mark)**

……

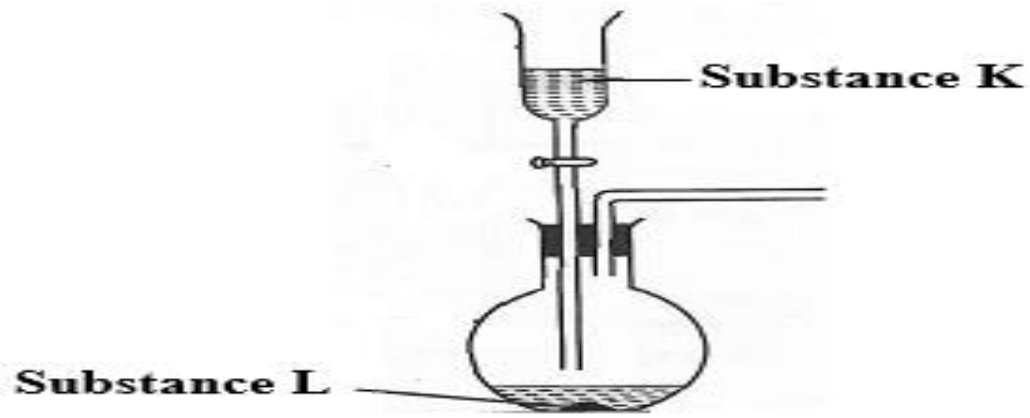
……

(g) Mention any 2 uses of sodium carbonate. **(1 mark)**

……

……

7. The set-up below can be used to generate a gas.



(a) (i) Complete the table below giving the names of substance **K** and **L** if the gases generated are carbon (IV) oxide and carbon (II) oxide. **(2marks)**

Substance	Carbon (IV) oxide	Carbon (II) oxide
K		
L		

(ii) Complete the diagram to show how a sample of carbon (II) oxide can be collected.

(2marks)

(iii) State two ways that can be used to distinguish carbon (IV) oxide from carbon (II) oxide? **(2 marks)**

……

……

……

……

(b) (i) In an experiment, carbon (IV) oxide gas was passed over heated charcoal held in a combustion tube. Write a chemical equation for the reaction that took place in the combustion tube. **(1 mark)**

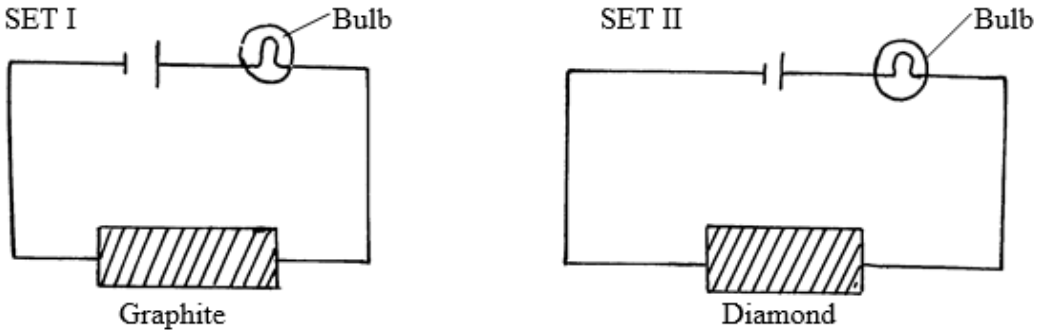
……

(ii) State **one** use of carbon (II) oxide. **(1 mark)**

……

……

(c) The following set ups were used by Form Two students. Study and use them to answer the questions that follow.



State and explain the difference in observation made in set up I and II above.**(3 marks)**

……

……

……

……

……

LANJET JOINT MOCK

SERIES 001

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

CHEMISTRY

PAPER 3

PRACTICAL

CONFIDENTIAL OF REQUIREMENTS

- *Burette*
- *Pipette*
- *2 conical flasks*
- *120cm^3 of 2.0M NaoH labelled B*
- *100cm^3 0f 0.2M H_2SO_4 labelledA*
- *250cm^3 volumetric flask*
- *A label*
- *Pipette filter*
- *Stand and clamp*
- *500cm^3 distilled water*
- *Phenolphthalein indicator*
- *100cm^3 plastic beaker*
- *Thermometer*
- *10cm^3 measuring cylinder*
- *100cm^3 measuring cylinder*
- *50cm^3 2.0M HCl , Solution D*
- *50cm^3 2.0M NaoH*
- *6 test tubes in a test tube rack*
- *0.2g of solid N ($Al_2(SO_4)_3$]*

REAGENTS

- *2M NaoH*
- *2M NH_4OH*
- *Ba (NO_3) $_2$solution*
- *2M nitric acid*
- *Potassium iodide solution*

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

233/3

CHEMISTRY

PAPER 3

PRACTICAL

TIME: 2 ¼ HOURS

INSTRUCTIONS TO CANDIDATES

[a]Answer ALL questions in the spaces provided in each question.

[b] Mathematical tables and electronic calculators may be used for calculations.

[c]all working must be clearly shown where necessary.

FOR EXAMINERS ONLY

QUESTION	MAXIMUM SCORE	CANDIDATES SCORE
1	15	
2	13	
3	12	
Total	40	

1. You are provided with

- 2.0M NaoH solution labelled B
- Sulphuric(VI) acid solution labelled A `

You are to:

[a] Prepare a dilute solution of NaoH solution.

[b] Determine the concentration of in moles per litre.

PROCEDURE 1

i. Using a pipette 25.0cm^3 of solution B and place it into 250cm^3 volumetric flask.

ii. Add about 200cm^3 of distilled water and share well.

iii. Add more water to make up to 250cm^3mark. Label this solution C

[a] Calculate the concentration of the dilute solution C in moles per litres. **[2mks]**

……

……

……

PROCEDURE 2

i. Fill the burette with solution A and record the readings in the table below.

ii. Pipette 25cm^3 of dilute solution C and place it into 250ml conical flask.

iii. Add 2-3 drops of phenolphthalein indicator.

iv. Titrate with solution A.

v. Record your results in the table below.

vi. Repeat the titration two or more times and complete the table.

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

[4mks]

[a] Determine average volume of the acid (solution A) used. **[1mk]**

……

……

[b] Determine moles of dilute solution C in the volume used. **[2mks]**

……

……

……

[c] Write an equation for the reaction taking place. **[1mk]**

……..

[d] Determine the number of moles of A used. **[2mks]**

……

……

……

[e] Determine the concentration of A in moles per litre. **[2mks]**

……

……

……

2. You are provided with the following

- 2M sodium hydroxide solution, solution B
- 2M hydrochloric acid, solution D

You are required to determine the molar enthalpy of neutralization of the acid using sodium hydroxide.

PROCEDURE

[i] Measure out $20cm^3$ of acid into a clean plastic beaker.

[ii] Record the temperature of this solution in the table below

[iii] Measure $5cm^3$ of sodium hydroxide and add it to the hydrochloric acid.

[iv] Stir with the thermometer and record the maximum temperature reached.

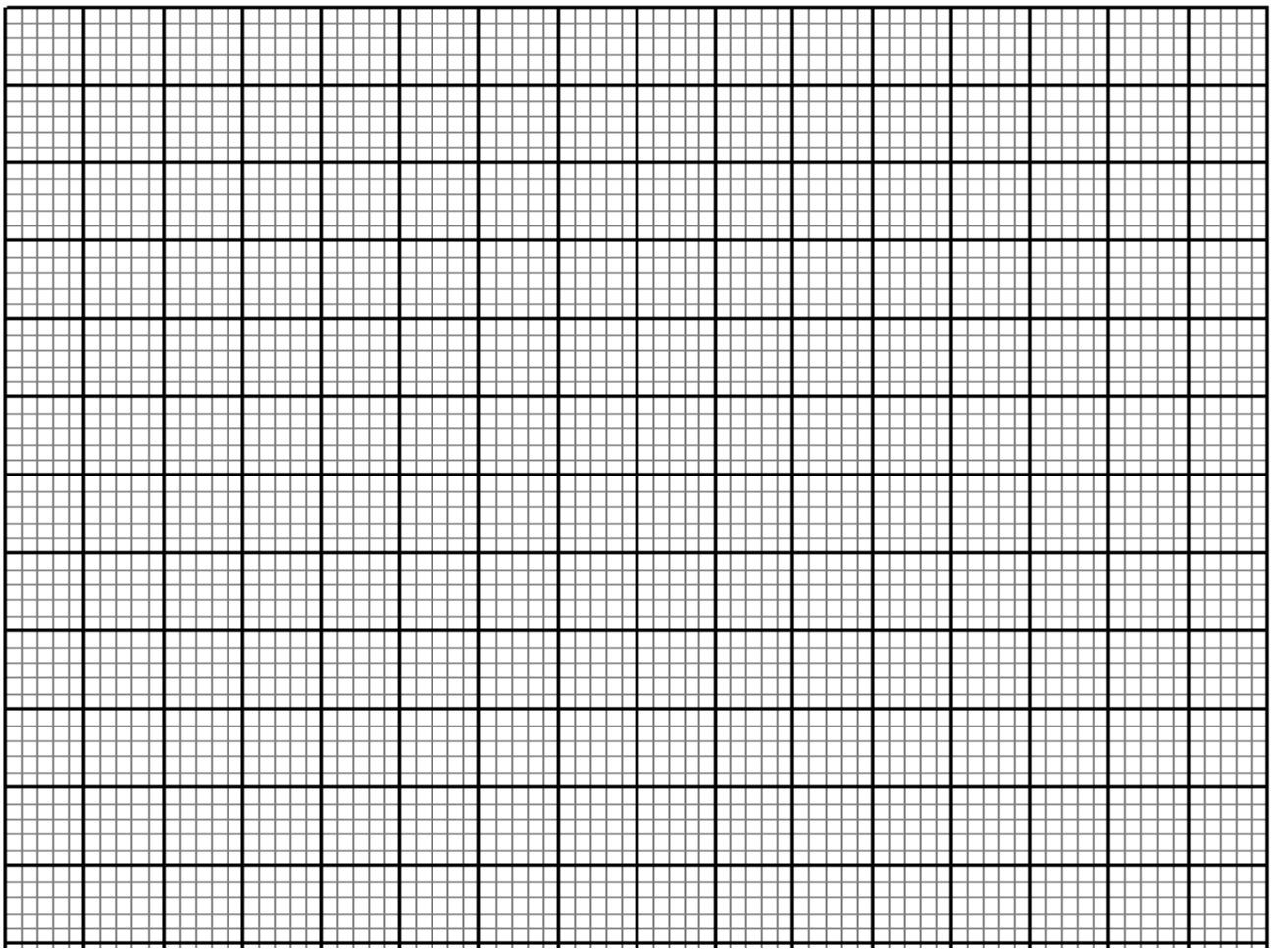
[v] Repeat the above procedure adding $5cm^3$ portions of sodium hydroxide until the total volume of the solution is $50cm^3$.

Volume of acid(cm3)	20	20	20	20	20	20	20
Volume of NaoH added cm^3	0	5	10	15	20	25	30
Temperature($°C$)of solution							

[3mks]

You are required to:

[a]. Plot a graph of temperature rise against sodium hydroxide added. **[3mks]**



[b]From your graph determine:

[i] maximum temperature change. **[1mk]**

……

……

[ii] the volume of NaOH that is required for complete neutralization **[1mk]**

……

……

……

[iii] Calculate the molar enthalpy of neutralization for this reaction. (C=4.2J/g/*K*) assume density of solution is 1gcm^{-3}) **[2mks]**

……

……

……

……

……

[iii] The theoretical molar heat of neutralization is -57.2kj/mol-1.Compare your value in [ii] above with the theoretical value. Give the reasons for any differences noted between these two values**.** **[2mks]**

……

……

……

3. You are provided with solid N carry out the tests below and record your observations and inferences.

[a] Place a spatula of N in a test tube and add $5cm^3$ of water and shake well divide the solution in to three portions.

OBSERVATION (1mk)	**INFERENCE (1mk)**

[b] Add sodium hydroxide to the first portion drop wise while observing till in excess

OBSERVATION (1mk)	**INFERENCE (2mks)**

[c] Add ammonia solution to the second portion drop wise until in excess.

OBSERVATION (1mk)	**INFERENCE (1mk)**

[d] Add four drops of potassium iodide solution to the third portion.

OBSERVATION (1mk)	**INFERENCE (1mk)**

[e] Add three drops of acid barium nitrate to the fourth followed by 5 drops of nitric acid.

OBSERVATION (2mks)	**INFERENCE (1mk)**

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

232/1

PHYSICS

Paper 1

TIME: 2 HOURS

INSTRUCTIONS TO THE CANDIDATES:

- *Write your **name and index number** in the spaces provided above.*
- *Answer **all** the questions both in section **A** and **B** in the spaces provided below each question*
- *All workings **must** be clearly shown; marks may be awarded for correct steps even if the answers are wrong.*
- *Mathematical tables and silent electronic calculators may be used.*

(*Take acceleration due to gravity g= 10ms^{-2} Density of water 1g/m^{-3}*)

For Examiners' Use Only

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
Section A	1-12	25	
Section B	13	09	
	14	14	
	15	14	
	16	09	
	17	09	
	18	**10**	
	TOTAL	**80**	

SECTION A (25 MARKS)

Answer all questions in this section in the spaces provided

1. State Pascal's principle of transmission of pressure in fluids **(1mk)**

……

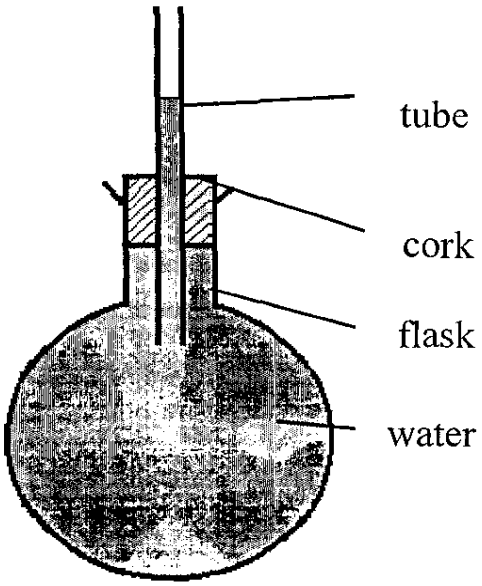
……

2. Water is known to boil at 100^{o}C . a student heated some water and noticed that it boiled at 101^{o}C. State two possible reasons for this observation **(2mks)**

……

……

3. Fig 1. Shows a flask filled with water. The flask is fitted with a cork through which a tube is inserted. When the flask is cooled, the water level rises slightly, then falls steadily.



Explain the observation **(3mks)**

……

……

……

4. A pipe of radius 4mm is connected to another pipe of radius 6mm. if water flows in the wider pipe at the speed of 5ms^{-1}, what is the speed in the narrower pipe? **(3mks)**

……

……

……

……

5. The system in figure2 is in equilibrium

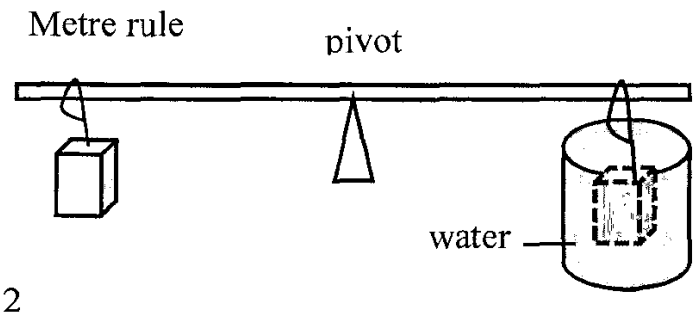


Figure 2

When the temperature of the water is raised the system is observed to tilt to the right, state the reason for this observation **(2mks)**

……

……

……

……

6. Explain why a glass container with glass walls is more likely to crack than one with a thin wall when a very hot liquid is poured into them. **(2mks)**

……

……

……

……

7. State two ways in which the stability of a body can be increased **(2mks)**

……

……

……

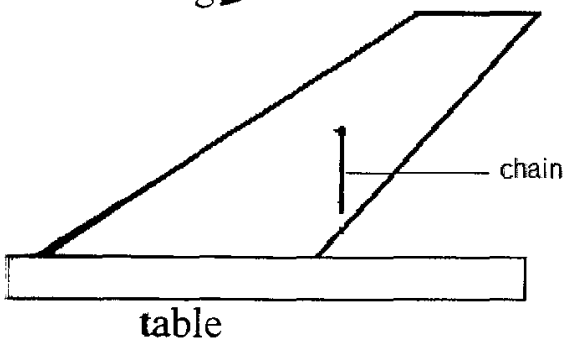
……

……

……

8. The object in figure 3 is placed on a horizontal table with a chain hanging from its centre of gravity. State the type of equilibrium for the object **(1mk)**

Fig 3

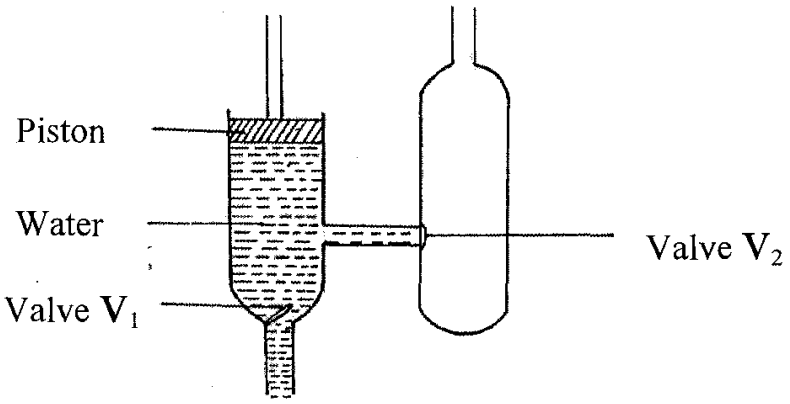


……

……

9. A ball is thrown upwards and returns to its starting point after 6 seconds. Calculate the maximum height reached($g=10m/s^2$) **(3mks)**

10. The figure below shows a force pump



Explain how the water gets past valve V2 **(2mks)**

……

……

11. When calibrating a liquid in glass thermometer, it is normally not advisable to dip the bulb in boiling water when getting the upper fixed point. Explain why it is so **(2mks)**

……

……

12. Convectional and diffusion both involve motion of fluid molecules. Distinguish between the two **(2mks)**

……

……

……

……

SECTION B (55 MKS)

13. **(a)** Define the term heat capacity **(1mk)**

……

……

……

(b) You are provided with the apparatus shown in Fig 5 and stop watch

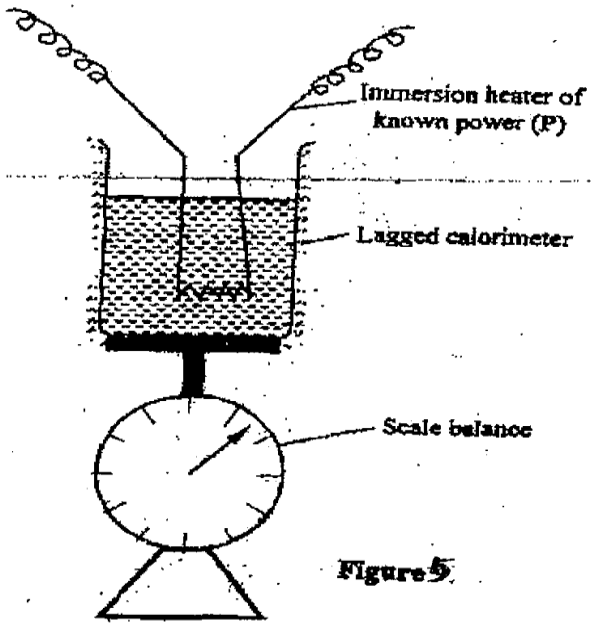


Figure 5

Describe an experiment to determine the specific latent heat of steam, using the set up. In your answers clearly explain the measurements to be made and how these measurements could be used to determine 1 **(6mks)**

…..

…..

…..

…..

…..

…..

(c) A block of metal of mass 150g at 100^{o}C is dropped into a lagged calorimeter of heat capacity 40JK^{-1} containing 100g of water at 25^{o}C. The temperature of the resulting mixture is 34^{o}C. (Specific heat capacity of water=4200JK^{-1})

Determine:

(i) Heat gained by calorimeter; **(2mks)**

…..

…..

(ii) Heat gained by water; **(1mk)**

…..

…..

…..

(iii) Heat lost by the metal block; **(1mk)**

…..

…..

…..

(iv) Specific heat capacity of the metal block **(3mks)**

…..

…..

…..

…..

14. (a) Distinguish between solid and liquid states of matter in terms of intermolecular forces **(1mk)**

……

……

(b) In an experiment to estimate the diameter of an oil molecule, an oil drop of diameter 0.05 spreads over a circular patch whose diameter is 20cm

Determine

(i) The volume of the oil drop **(2mks)**

……

……

……

……

(ii) The area of the patch covered by the oil **(2mks)**

……

……

……

……

(iii) The diameter of the oil molecule **(2mks)**

……

……

……

……

(c)State

(i) Any assumption made in (b) (iii) above **(1mk)**

……

……

……

(ii) Two possible sources of errors in this experiment **(2mks)**

……

……

15. (a) State what is meant by centripetal acceleration **(1mk)**

……

……

(b) A block of mass 200g is placed on a frictionless rotating table while fixed to the centre of the table by a thin thread. The distance from the centre of the table to the block is 15cm. if the maximum tension the thread can withstand is 5.6N. determine the maximum angular velocity the table can attain before the thread cuts. **(4mks)**

……

……

……

……

……

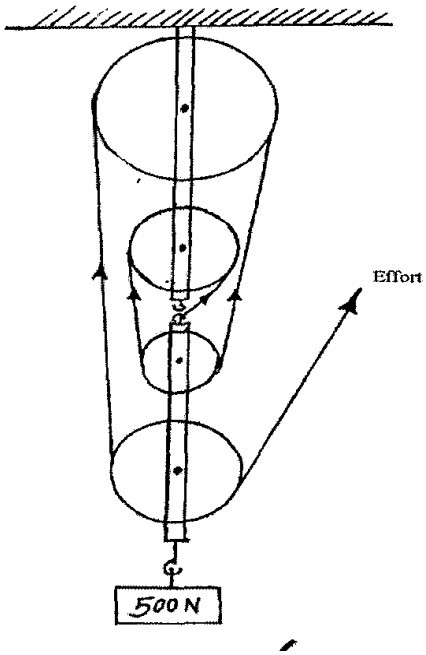
……

16. (a) Define the term velocity ratio as used in machines **(1mk)**

……

……

(b) Figure 6 shows a block and tackle pulley system lifting a load of 500N



(i) Determine the velocity ration of the machine **(1mk)**

……

……

(ii)If an effort of 120N is required to lift the load using the machines determine the efficiency of the pulley system **(3mks)**

…..

…..

…..

…..

(iii) In the space provided below, sketch a graph of efficiency against load for the system.

(2mks)

17. A car of mass 2000kg travelling at 5m/s collides with a minibus of mass 5000kg travelling in the opposite direction at 7m/s, the vehicles stick and move together after collision. If the collision lasts 0.1 seconds

(a) Determine the velocity of the system after collision to 3 decimal places **(3mks)**

(b) Calculate the impulsive force on the minibus **(3mks)**

(c) (i) Calculate the change in kinetic energy of the system to 5 significant figures **(3mks)**

18. **(a)(i)** State the law of floatation **(1mk)**

……

……

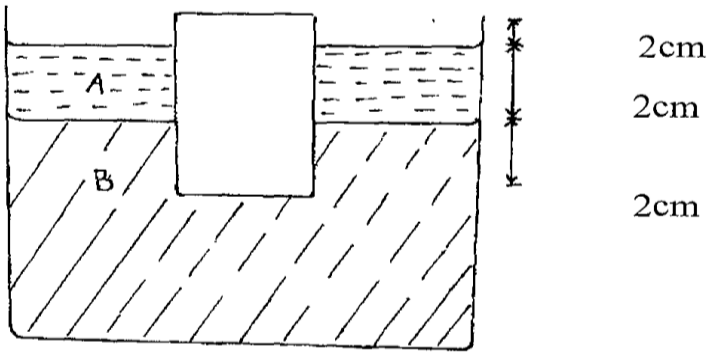
(ii) Explain why a hollow metal sphere floats on water while a solid metal sphere of the same material sinks in water. **(2mks)**

……

……

……

(b) The figure 7 below shows a uniform block of uniform cross-sectional area of 6.0cm^2 floating on two liquids A and B. The lengths of the block in each liquid are shown. Given that the density of liquid A is 800kg/m^3 and that of liquid B is 1000kgm^{-3} determine the:



(i) Weight of liquid A displaced **(2mks)**

(ii) Weight of liquid B displaced **(2mks)**

(iii) Density of block **(3mks)**

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

232/2

PHYSICS

Paper 2

THEORY

TIME: 2 HOURS

Instructions to Candidates

1) *Write your name and index number in the spaces provided above.*

2) *Sign and write the date of the examination in the spaces provided above*

3) *Answer **all** the questions in section **A** and **B** in the spaces provided*

4) *Non programmable silent electronic calculators and KNEC mathematical tables may be used except where stated otherwise.*

Take: Speed of light in vacuum C = 3.0 x 10^8m/s

Acceleration due to gravity g = 10N/S^2

FOR EXAMINER'S USE ONLY

Section	Question (s)	Max. Score	Candidates Score
A	1 – 12	25	
B	13	12	
	14	8	
	15	11	
	16	12	
	17	12	
	Total	80	

SECTION A (25 MARKS)

Answer all the questions in the spaces provided.

1. Figure 1 below shows a ray of light incident to the first of the two mirrors placed at an angle of 60^0

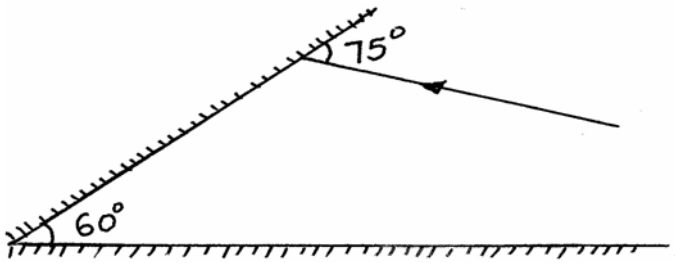


fig 1

Complete the path of the ray after reflection from the mirrors. **(1mk)**

2. Figure 2 below shows a positive charge near a plate carrying negative charge.

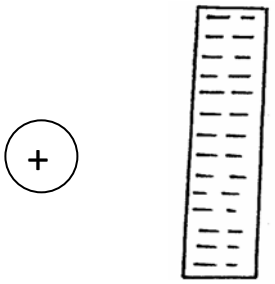


fig 2

Draw the electric field between them. **(2mks)**

3. Two pins are hanging from a magnet as shown in the diagram below (figure 3)

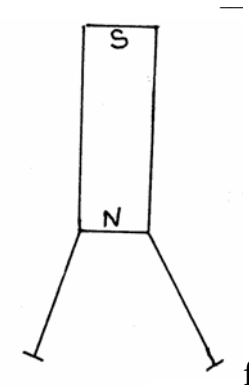


fig 3

Explain why they do not hang vertically downwards. **(2mks)**

……

……

4. Draw the diagrams to illustrate what happens when plane waves are incident on a slit.

i) When the width of the slit is large compared with the wavelengths of the waves. **(2mks)**

ii) When the width of the slit is small compared with wavelength of the waves. **(2mks)**

5. What energy conversion occurs in a photocell? **(1mk)**

……

6. i) Arrange the following waves in order of decreasing wavelength; infrared, X-rays, micro-waves

and visible light **(1mk)**

……

ii) State one application of visible light. **(1mk)**

……

7. State two advantages of an alkaline battery over lead acid battery.

(2mks)

……

……

8. A girl shouts and ears an echo after 0.6 seconds later from a cliff. If velocity of sound is 330m/s, calculate the distance between her and the cliff. **(3mks)**

9. What is dispersion of light? **(1mk)**

……

……

10. Determine the reading of an ammeter in figure 4 below

(2mks)

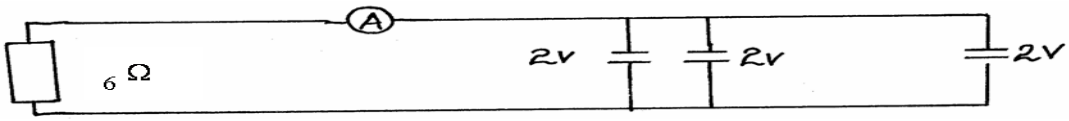


fig 4

11. A ray of light is incident on a glass oil interface as shown in figure 5 below. Determine the value of r (Take refractive index of glass and oil as 3/2 and 6/3 respectively)

(3mks)

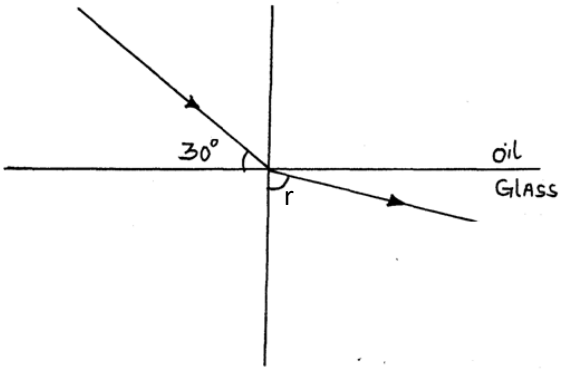


fig 5

12. State two factors that affect the capacitance of a parallel plate capacitors. **(2mks)**

……

……

……

SECTION B (55 MARKS)

13. (a) State Ohm's law. **(1 mark)**

……

……

(b) You are provided with the following apparatus:

- Connecting wires
- An ammeter
- Fixed resistor
- A voltmeter
- A variable resistor
- Switch
- 2 dry cells in a cell holder

(i) In the spaces below, draw the circuit that can be used using the apparatus above to verify Ohm's Law. **(3 marks)**

(ii) Briefly explain how you can obtain the results to verify Ohm's law. **(4 marks)**

……

……

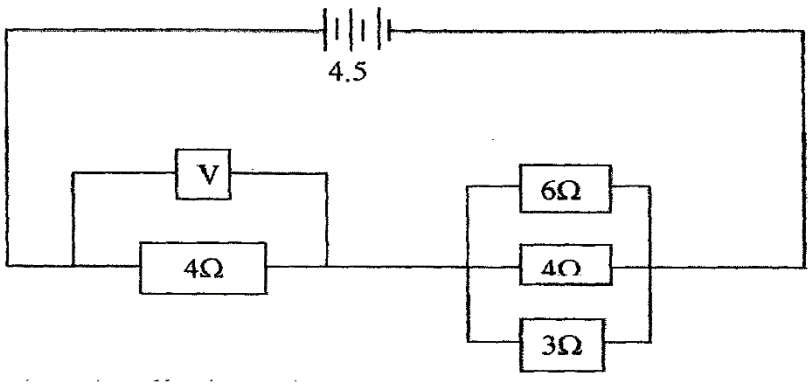
……

……

……

……

(c)Study the circuit diagram below and answer the questions that follow.



(i) Calculate the effective resistance of the circuit. **(3marks)**

(ii) Find the voltmeter reading. (**2marks)**

14. (a) A Girl stands some distance from a high wall and claps her hands

(i) What two measurements would need to be made in order to determine the speed of sound? **(2mks)**

……

……

……

(ii) Describe how you would make use of these measurements (**3mks)**

……

……

……

……

(iii) The speed of sound in air is 330m\s.How far from the wall would you stand? Choose an answer from the following distances .10m, 200m, 500m.

Give reasons why you did not choose each of the other two distances (**2mks)**

……

……

……

(b) The balloon filled with carbon dioxide can act like a lens and focus sound from a loud speaker. On to the microphone, Figure 6 show waves produced by loud speaker moving towards the balloon.

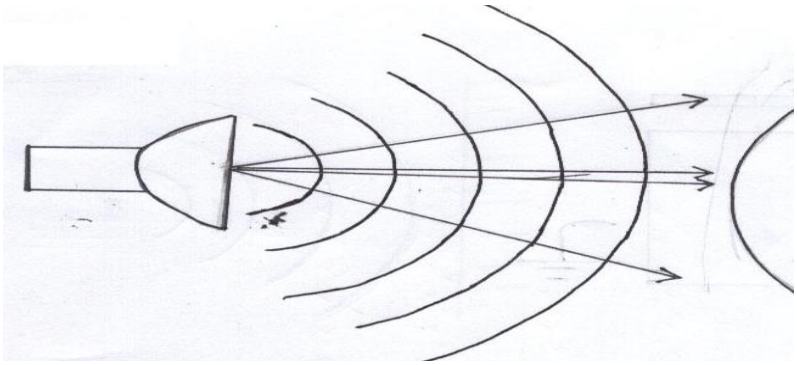


Figure 1

(i) Complete the diagram to show what happens to the sound waves when they happens to the sound waves when they have passed through the balloon and moves towards the microphone **(2mks)**

(ii) The loud speaker is now moved towards the balloon .This results in less sound at the microphone. **Explain** why there is less sound at the microphone. **(1mk)**

……

……

(iii) The frequency of the sound emitted by the loud speaker is 1020Hz. **Calculate** the wavelength of the sound wave in air where its velocity is 340m**s** **(2mks)**

c) Figure 15 shows the set up used to demonstrate interference of sound

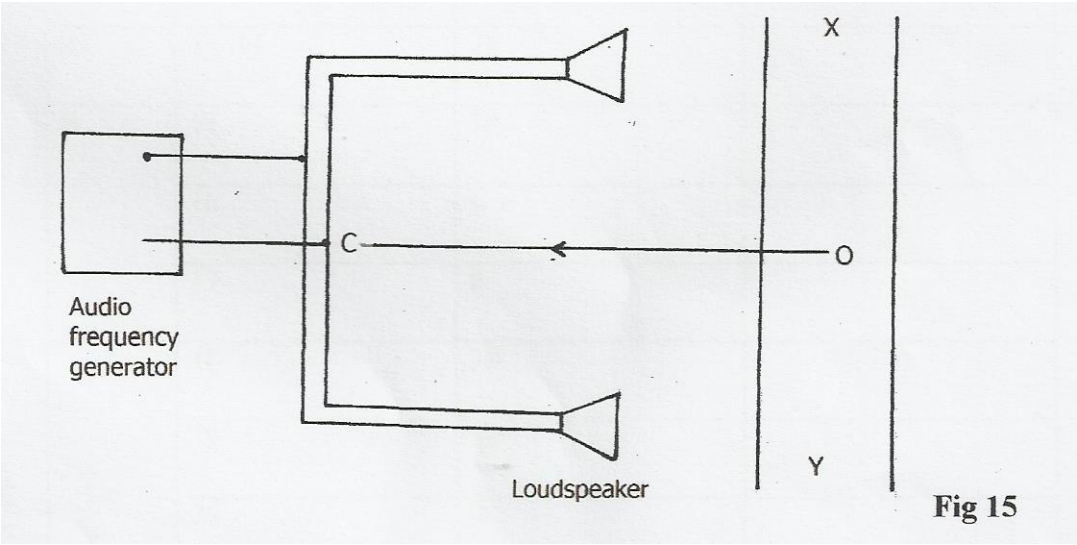


Fig 15

i) An observer O, moves along XY.

State the observation(s) made. **(1 mark)**

……

……

(ii) State what would be observed if a cathode ray oscilloscope is moved along line XY. **(1 mark)**

……

……

(iii) What will a student hear if he moves along the line OC? **(1 mark)**

……

……

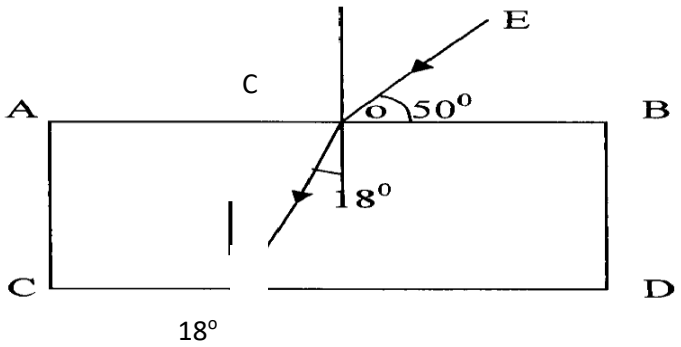
15. (a) State the conditions to be satisfied for total internal reflection to occur.

(2marks)

……..……..

……..……

(b) A ray of light traveling in the direction EO in air enters a rectangular block as shown in the diagram. The resulting angle of refraction is 18°.



Find:

(i) The refractive index of the block. **(2marks)**

……

……

……

(ii) The critical angle C of the block. **(3marks)**

……

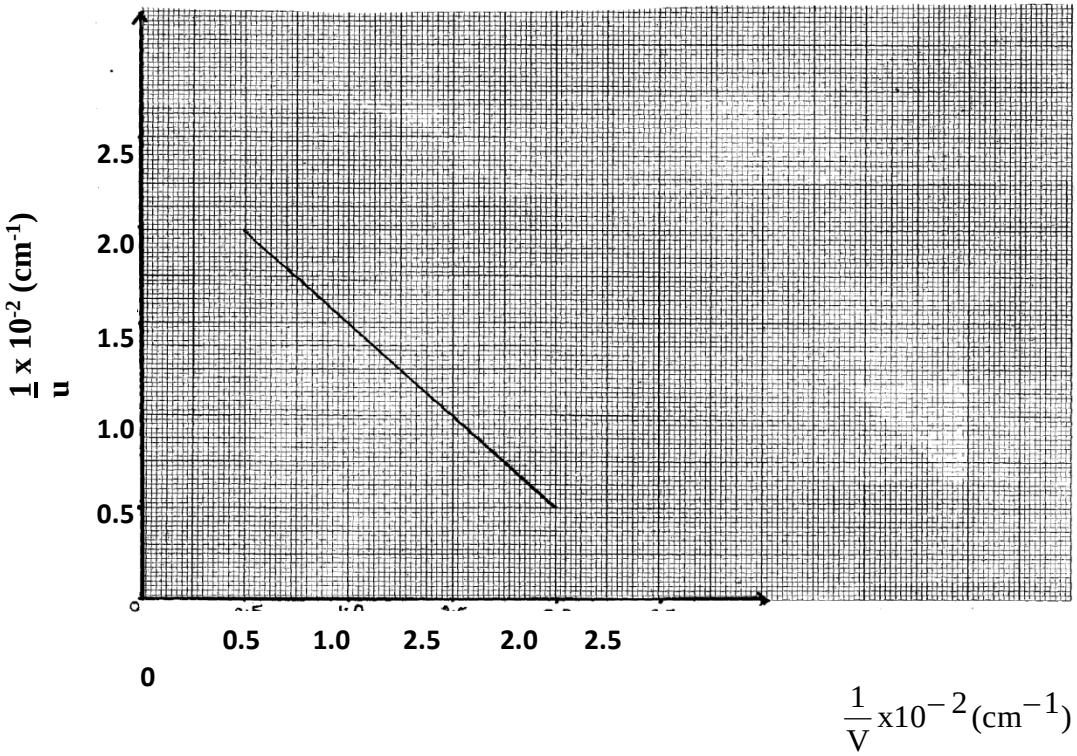
……

……

……

16. (a) The graph below shows the relationship between $1/u$ for $1/v$ for a converging lens where u and v

are the object and image distances respectively.



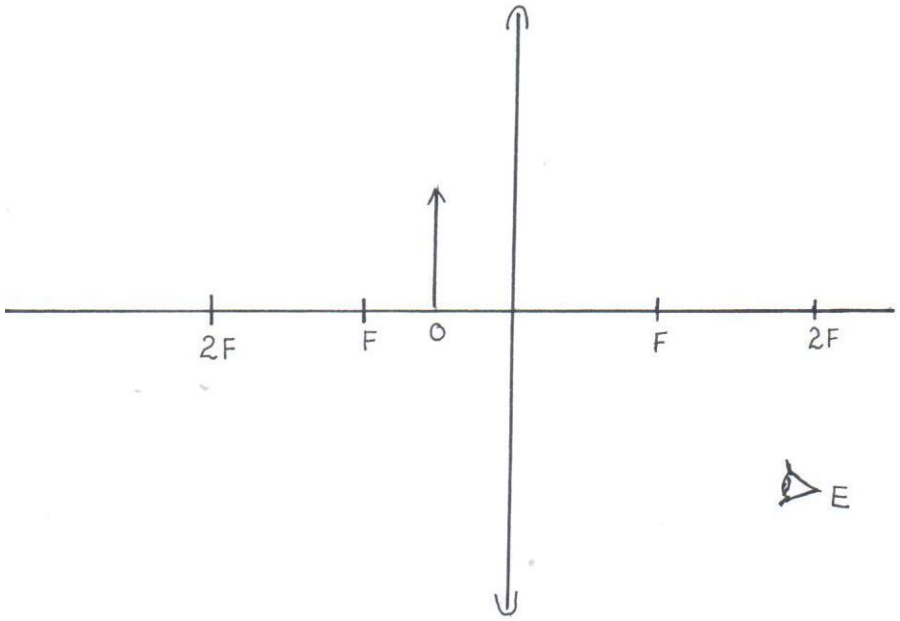
From the graph, determine the focal length f, of the lens. **(3 mks)**

……

……

……

17. **(a)** The figure below shows an object in front of lens.



(i) Using rays locate the image as seen by observer, E. **(2 marks)**

(ii) Give **one** application of such a lens as used above. **(1 mark)**

……

……

(iii) Write **three** similarities between an eye and a camera. **(3 marks)**

……

……

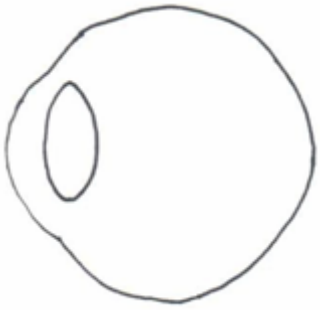
……

……

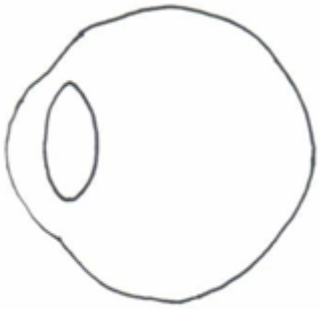
……

(b) Figure (a) and (b) show diagrams of the human eye.

(a)



(b)



(i) In figure (a), sketch a ray diagram showing long sightedness**.** **(1 mark)**

(ii) In figure (b), sketch a ray diagram showing how lens is used to correct long sightedness.

(2 marks)

(d) An object of height 10.5cm stands before a diverging lens of focal length 20cm and a distance of 10cm from the lens. Determine;

(i) image distance. **(3 marks)**

……

……

……

……

(ii) height of the image. **(3mark)**

……

……

……

……

(iii) magnification. **(2 mark)**

……

……

……

……

LANJET JOINT MOCK

SERIES 001

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

PHYSICS

232/3

PAPER 3

PRACTICAL

CONFIDENTIAL

INSTRUCTIONS TO SCHOOLS

1. The information contained in this paper is to enable the head of school and the teacher in charge of Physics to make adequate preparations for this year's Physics practical examination. **NO ONE ELSE** should have access to this paper or acquire knowledge of its contents. Great care **MUST** be taken to ensure that the information herein does not reach the candidates either directly or indirectly.

2. The Physics teacher is Not expected to perform the experiments.

3. The apparatus required by each candidate for the Physics practical examination are set out on page 2.

It is expected that the ordinary apparatus of a Physics laboratory will be available.

The Physics teacher should note that it is his/ her responsibility to ensure that each apparatus acquired for this examination agrees with the specification on pages 2.

4. The question paper will NOT be opened in advance.

5. Teachers are reminded that electronic calculators may be allowed in the examination rooms.

N.B

Any use of apparatus other than the ones specified may lead to candidates being penalized.

Each candidate requires the following;

Question 1

- *A candle*
- *A white screen*
- *A metre rule*

- *A convex lens of focal length 20cm*
- *A lens holder*
- *A piece of plasticine*

Question 2

- *A clamp, boss and retort stand*
- *Optical pin fixed on a piece of a cork*
- *A copper wire of length 15 cm and diameter 1.0mm*
- *A protractor*
- *A stop watch*

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

PHYSICS

Paper 3

PRACTICAL

TIME: 2 ½ HOURS

INSTRUCTIONS TO CANDIDATES

- *Write your name, school and index number in the spaces provided above.*
- *Sign and write the date of the examination in the spaces provided above.*
- *You are not allowed to start working with the apparatus for the first 15 minutes of the 2½ hours allowed for this paper. This time is to enable you read the question paper and make sure you have all the apparatus you may need.*
- *Candidates are advised to record their observations as soon as they are made.*
- *Mathematical tables and electronic calculators **may be** used in calculations.*

FOR OFFICIAL USE ONLY

Question 1	b	e	f(i)	f(ii)	f(iii)	f(iv)	TOTAL
Maximum Score	2	6	5	3	2	2	
Candidate's Score							

Question 2	c(i)	c(ii)	d	e	f	g	TOTAL
Maximum Score	1	1	7	5	3	3	
Candidate's Score							

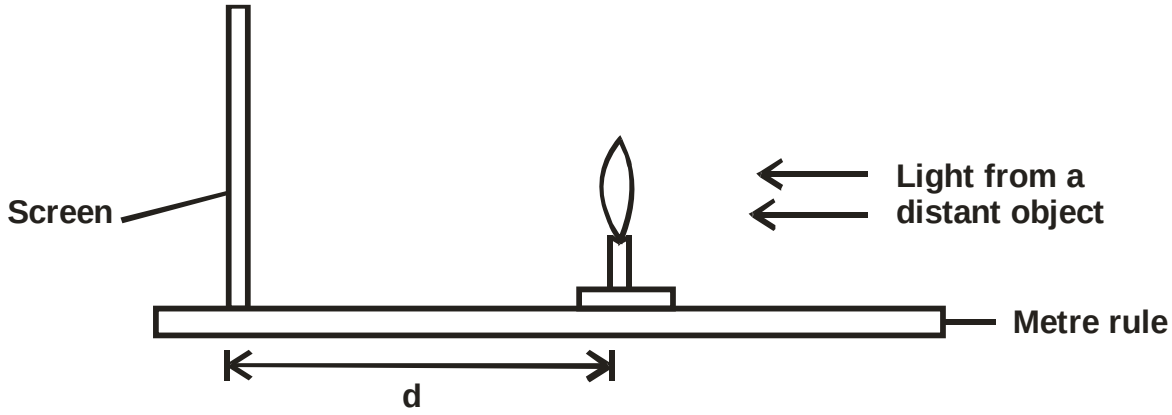
GRAND TOTAL

1. You are provided with the following;

-A candle
-A white screen
-A metre rule
-A lens
-A lens holder
-A piece of plasticine.

Proceed as follows:

a) Arrange the apparatus as shown below.



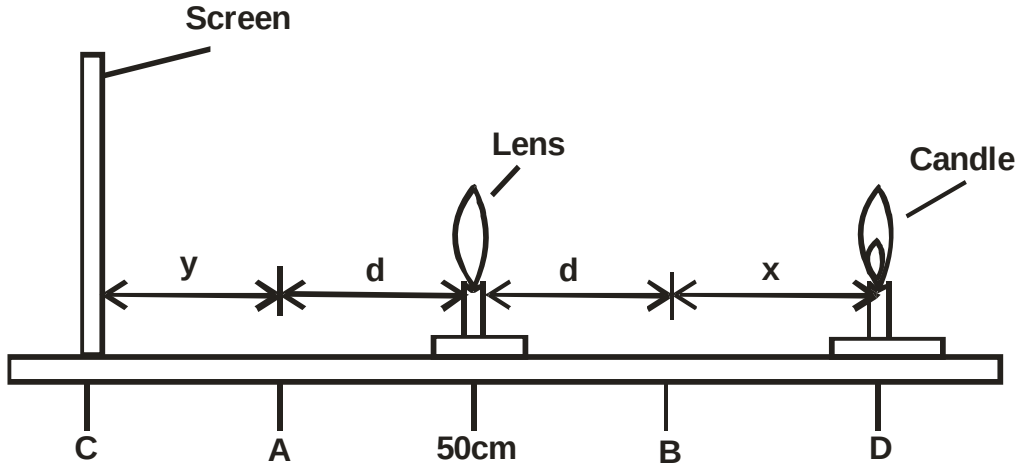
b) Adjust the distance of the lens from the screen until a well-focused image of a very distant object like a tree, is seen on the screen. Record the distance between the screen and the lens as d.

d = _____ cm **(1 mark)**

d = _____ m **(1 mark)**

c) Now place the lens at the midpoint of the metre rule.

(**It will remain at this point throughout the entire experiment**) Arrange the screen and lit candle as shown below.



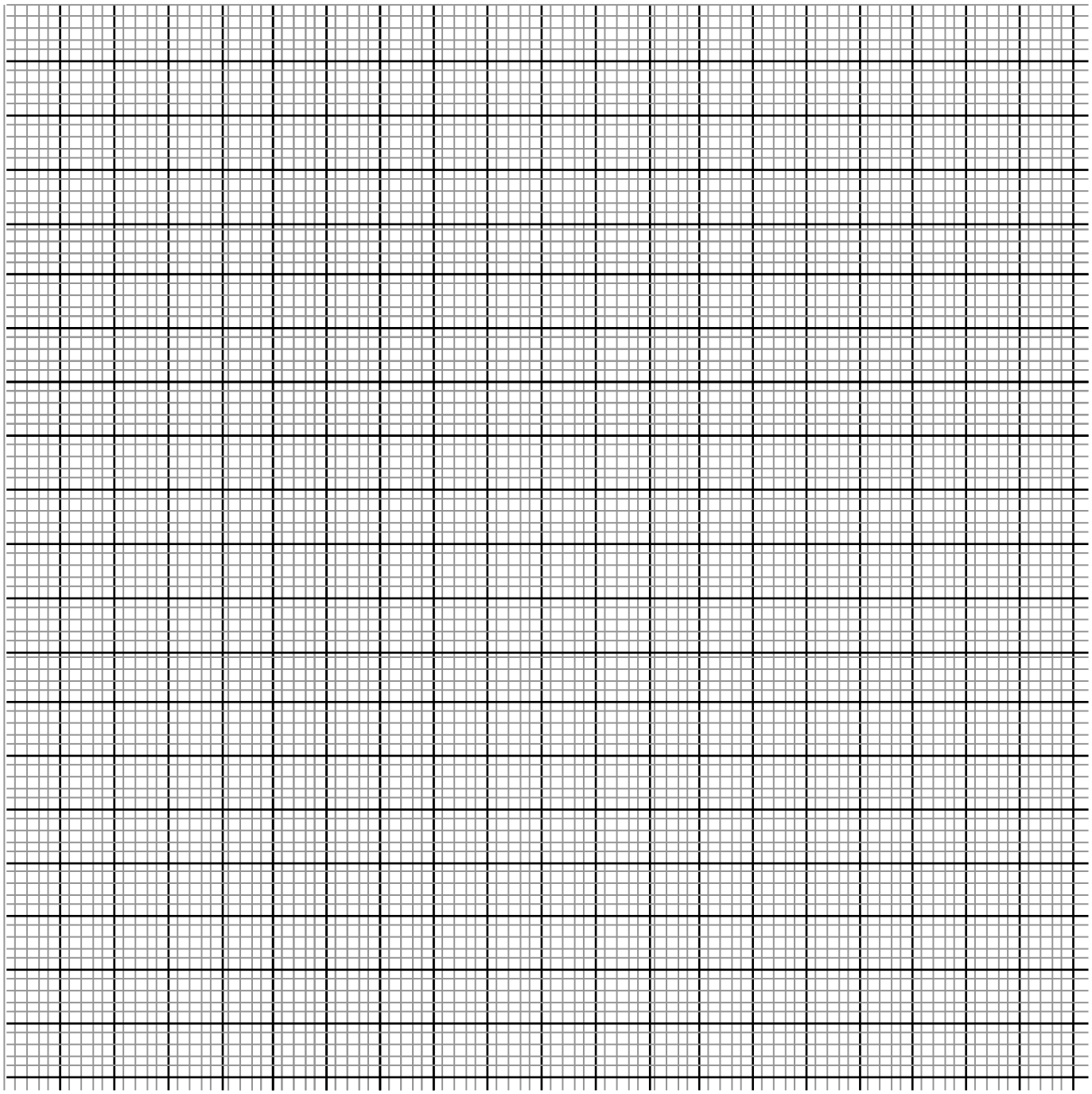
Mark the point A and B each of which a distance 'd' from the lens.

d) Place the lit candle at point d, 30cm from B. Adjust the position of the screen until a sharp image appears on it. The screen is at C. Measure BD and AC and record them as x and y respectively in the table below.

BD = x (cm)	AC = y (cm)	$\frac{1}{y}$ (cm^{-1})
30		
25		
20		
15		
10		

Repeat the procedure in (d) above for other values of x in the table and complete it. **(6 marks)**

i) Draw a graph $\frac{1}{y}$ (y-axis) against x. **(5 marks)**



ii) Determine the slope S of the graph. **(3 marks)**

iii) Calculate the value of m given that

$$m = \sqrt{\frac{1}{s}}$$ **(2 marks)**

iv) Comment on values of m and d. **(2 marks)**

_____

_____

_____

_____

_____

2. You are provided with the following:

-Clamp, boss and stand

-Optical pin fixed on a piece of cork.

-Copper wire of length 15cm

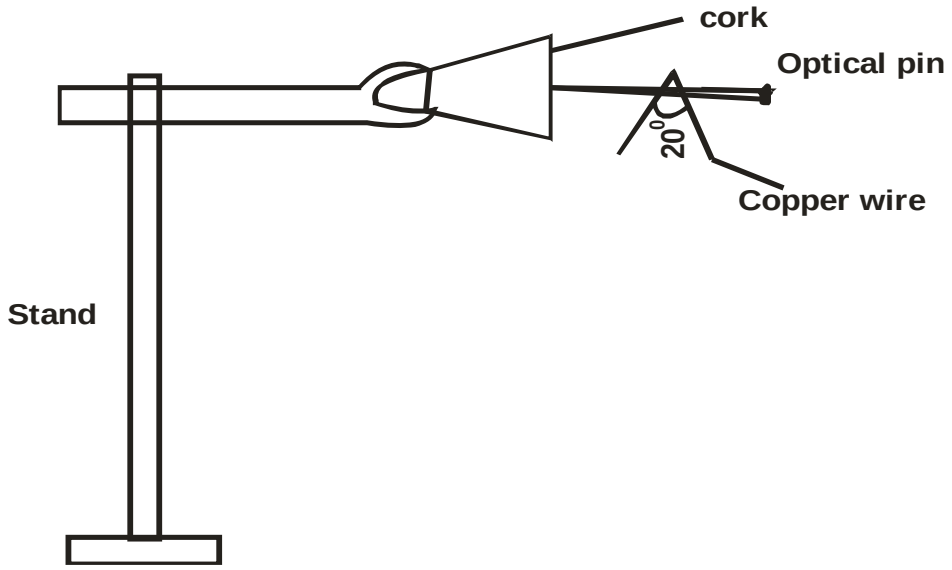
-Protractor

-Stop watch

Proceed as follows:

a) Bend the wire in the middle so that the angle formed is 20^0.

b) Set-up the apparatus as shown in the diagram below.



c) i) Displace the wire horizontally and allow it to swing freely. Record time for 10 complete oscillations.

t = _____ seconds (1 mark)

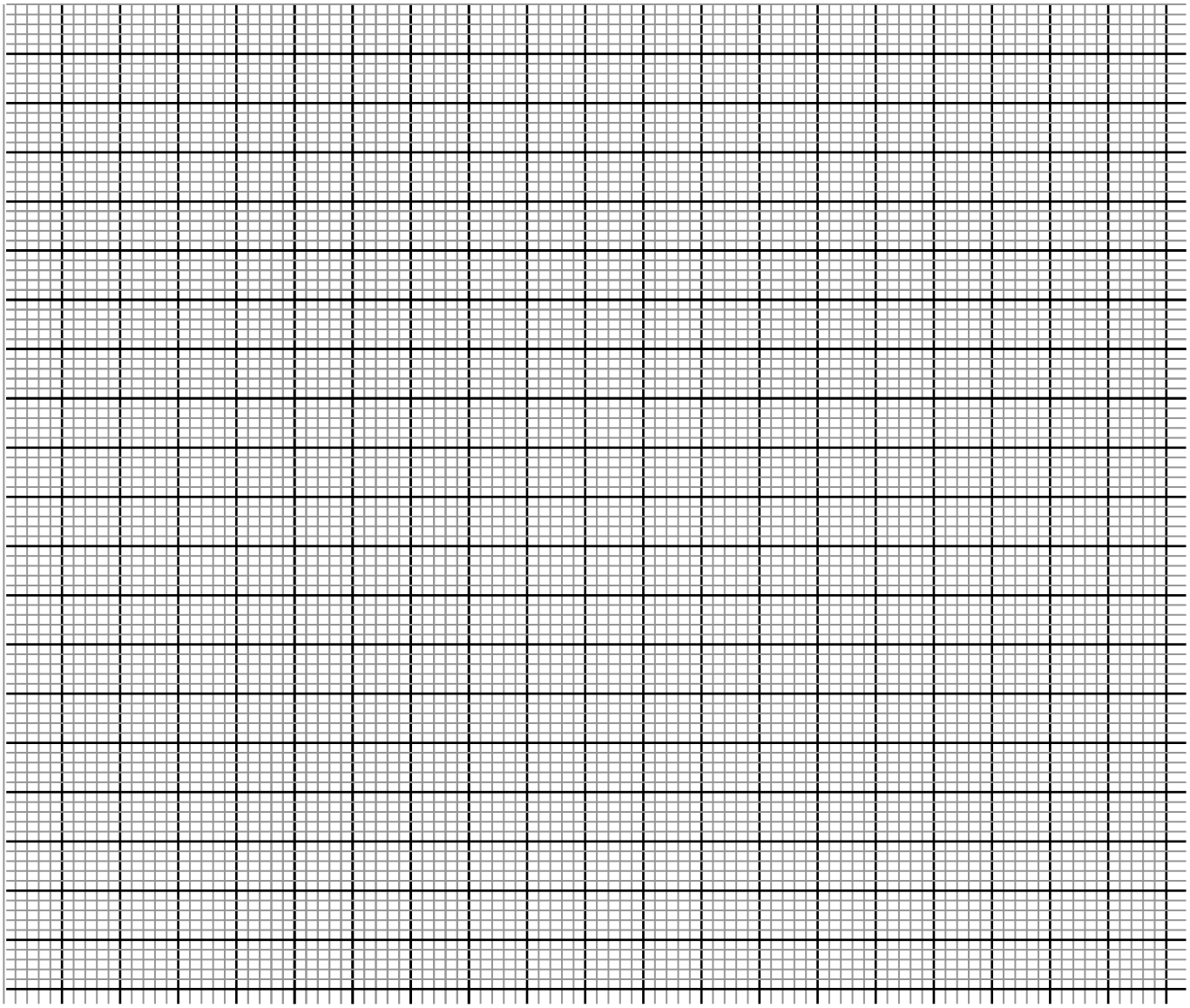
ii) Calculate frequency, f at time in (i) above. (1 mark)

d) Repeat the procedure above (c) for other given angles on the table below.

Angle θ^0	Time for 10 oscillation t (s)	Frequency, f = $\frac{t}{10}$	$f^2(Hz)^2$	$Cos\left(\frac{\theta}{2}\right)$
20^0				
40^0				
60^0				
80^0				
100^0				
120^0				

(7 marks)

e) On the grid provided, plot a graph of f^2 (y axis) against Cos $\left[\frac{\theta^0}{2}\right]$ **(5 marks)**



f) Find the gradient of the graph. **(3 marks)**

g) The equation of the graph is $f^2 = \frac{150K}{4\pi^2 L} \text{Cos}\ \frac{\theta}{2}$ determine the value of constant K if L is the total length of the wire in centimeters. **(3 marks)**

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

443/1

AGRICULTURE

Paper 1

THEORY

TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES

a) *Write your name and index in the spaces provided above*

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

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

d) *Answer* ***all*** *the questions in sections* ***A*** *and* ***B.***

e) *Answer any* ***two*** *questions in section* ***C***

f) All *answers should be written in the spaces provided in the question paper.*

FOR EXAMINER'S USE ONLY

Section	Question	Maximum Score	Candidates Score
A	1 – 20	30	
B	21 - 26	40	
C	27-29	20	
Total Score		90	

1. State t**wo** methods which can be used to detect mineral deficiency in crops. **(lmk)**

……

……

2. State **two** conditions under which shifting cultivation is favourable. **(lmk)**

……

……

3. State t**wo** conditions under which seeds are seeded at a high seed rate. **(2mks)**

……

……

4. State **three** ways in which trees improve soil fertility. **(1 ½ mks)**

……

……

……

5. Give **three** causes of hardpans in cultivation. **(1 ½ mks)**

……

……

……

6. Under what **two** conditions does opportunity cost not exist? **(lmk)**

……

……

7. Give **two** roles of additives in silage making. **(lmk)**

……

……

8. Outline **four** advantages of mixed farming. **(2mks)**

……

……

……

……

9. Give **three** reasons why bulbils make good planting materials than suckers. **(2mks)**

……

……

……

10. Give **three** reasons why agriculture is defined as a science. **(1 ½ mks)**

……

……

……

11. Give **four** characteristics of large scale farming system. **(2mks)**

……

……

……

……

12. State **four** farming practices which help to improve soil structure. **(2mks)**

……

……

……

……

13. Give **four** effects of top dressing on a pasture. **(2mks)**

……

……

……

……

14. What are the two reasons for innoculating legume seeds before planting . **(1mk)**

……

……

15. State **two** advantages of carrying out pruning in banana production. **(1mk)**

……

……

16. In maize hybrid 614 what do the following figures stand for? **(1mk)**

(i) 6……

(ii) 4……

17. Give **two** ways in which pastures are classified. (1mk)

……

……

18. Name **four** practices carried out to improve and maintain permanent pasture. **(2mks)**

……

……

……

……

19. Give **four** advantages of tissue culture. **(2mks)**

……

……

……

……

20. Give **three** stages of controlling devils horsewhip by mechanical means. **(1½ marks)**

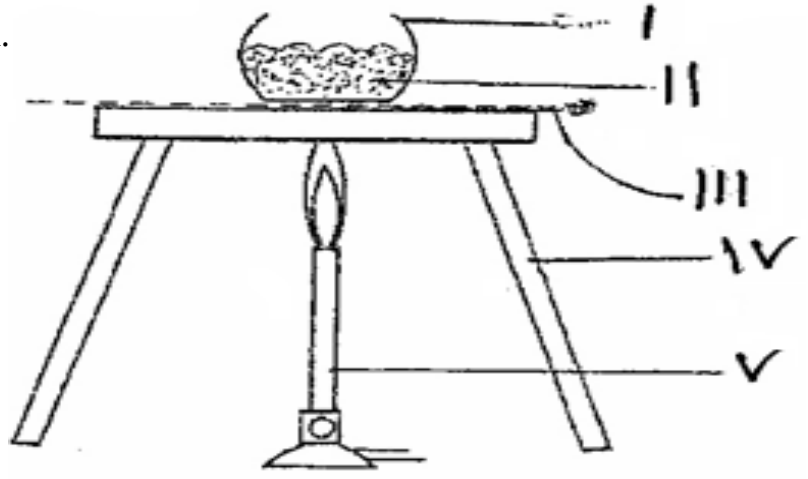
……

……

……

SECTION B

21. The diagram below shows a set up of apparatus for finding the percentage of humus contents in a soil by ignition.



(a) Label the apparatus. **(2 marks)**

I ……

II ……...

III ……..

IV ……...

(b) Outline the steps followed in carrying out the illustrated experiment. **(3 marks)**

……

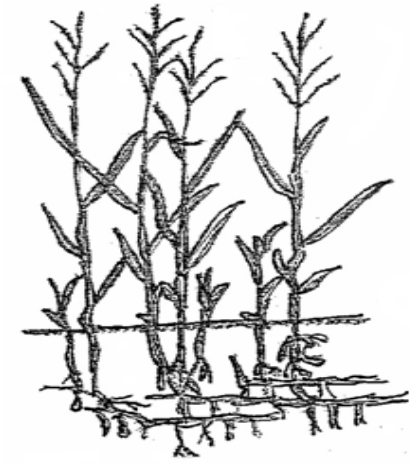
……

……

……

22.

G



H



(i) Identify the weeds above. **(2 marks)**

G ……

H ……

(ii) State the economic importance of the weed shown in diagram **G**. **(2 marks)**

……

……

……

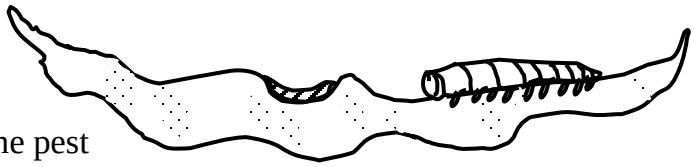
……

(iii) Why is it difficult to control weed in diagram **G**? **(1 mark)**

……

……

23. Study the pest below and answer the questions below.



(a) Identify the pest **(1 mark)**

……..

(b) State two methods of controlling the pest. **(2 marks)**

……

……

(c) Name the crops attacked by the pest. **(2 marks)**

……

……

24. The diagram below illustrates a field management practices in tomatoes



(i) Identify the practice **(1 mark)**

……

(ii) State three reasons for carrying out the practice. **(3 marks)**

……

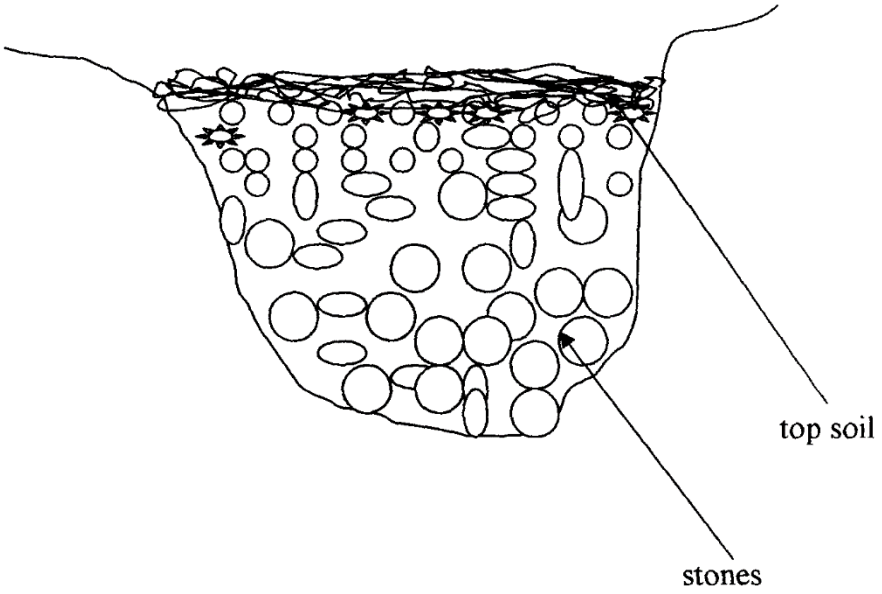
……

……

(iii) Give another practice that could be carried out to give the same results. **(1 mark)**

……

25. Study the diagram below then answer the questions that follow:



(a) Identify the method of drainage above. **(1mk)**

……

……

(b) State other **three** methods used to drain swampy areas. **(3mks)**

……

……

……

(c) Give **four** importance of drainage. **(4mks)**

……

……

……

……

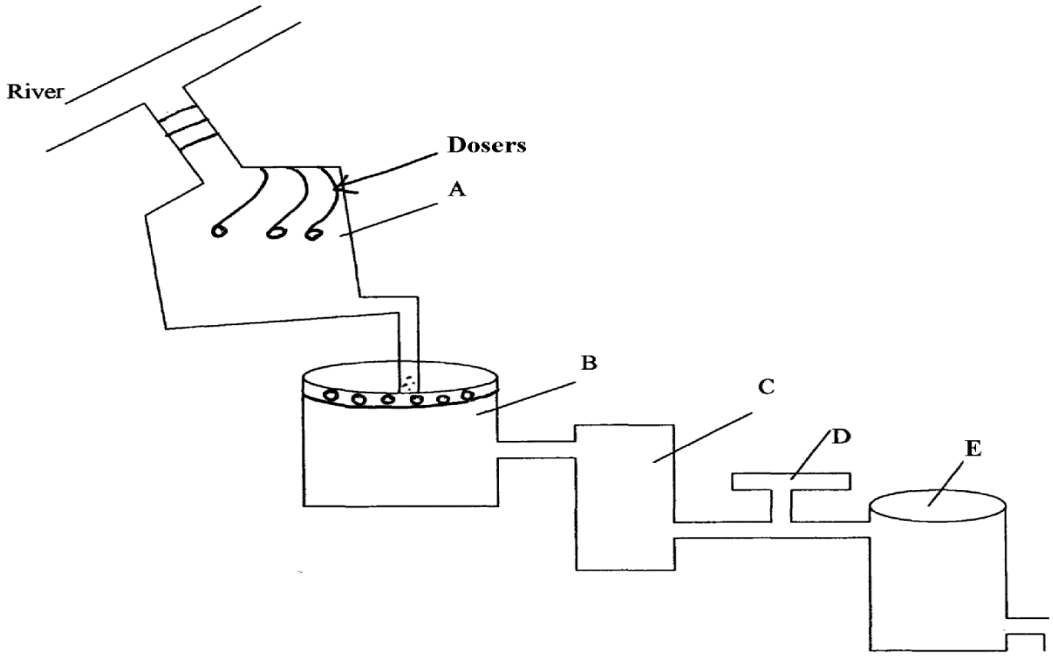
……

……

……

……

26. Study the processes of chemical water treatment below and answer the questions that follow:



(a) Identify the parts labeled: **(2mks)**

A ……

B ……

C ……

D ……

(b) State **two** chemical substances added at part labeled B and give their functions. **(2mks)**

……

……

(c) State **two** factors which influence the quantity of the chemical used in part labeled D**.**

(2mks)

……

……

……

(d) State **three** uses of water in crop production. **(3 mks)**

……

……

……

(e) State **three** types of production functions in agriculture. **(3mks)**

……

……

……

SECTION C (20MKS)

27. (a) Describe the cultural methods of weed control in crop production. **(l0mks)**

(b) Describe the harmful effects of pests on crops **(10mks)**

28. (a) Discuss the human factors which influence agriculture. **(10 mks)**

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

29. Describe the production of carrots under the following sub headings

a) Seedbed preparation **(3 marks)**

b) Harvesting **(4 marks)**

c) Explain five cultural methods of weed control in beans production. **(10 marks)**

d) Outline three roles of sulphur in crop production. **(3 marks)**

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

443/2

AGRICULTURE

PAPER 2

TIME: 2 ½ HOURS

Instructions to candidates

a) Write your name and index in the spaces provided above
b) Sign and write the date of examination in the spaces provided above
*c) This paper consists of **three** sections **A, B** and **C**.*
*d) Answer **all** the questions in sections **A** and **B**.*
*e) Answer any **two** questions in section **C***
*f) **All** answers should be written in the spaces provided in the question paper.*

FOR EXAMINER'S USE ONLY

Section	Question	Maximum Score	Candidates Score
A	1 – 29	40	
B	30 - 35	30	
C	36 - 38	20	
Total Score		90	

1. What is apiculture? **(1 mark)**

.....

.....

2. **Name one** livestock disease that is transmitted by the following parasites.

(a) Brown ear tick **(½ mark)**

.....

(b) Tsetsefly **(½ mark)**

.....

3. State the intermediate host for liver fluke Fasciola spp. (½ mark)

.....

4. **State four** breeds of rabbits. **(2 marks)**

.....

.....

.....

.....

5. **State two** functions of a crop in a digestive system of chicken. **(1 mark)**

.....

.....

6. **State three** ways of restraining cattle **(1½ marks)**

.....

.....

.....

7. **State two** livestock diseases caused by virus. **(1 mark)**

.....

.....

8. **State two** types of selection practiced by livestock farmers **(1 mark)**

.....

.....

9. **State three** ways of preventing predation in a fish pond **(1mark)**

.....

.....

.....

10. **State four** functions of feed additives in livestock production. **(2 marks)**

.....

.....

.....

.....

11. **State two** types of calf pens. **(1 mark)**

.....

.....

12. State advantages of embryo transplant. **(2 marks).**

.....

.....

13. **State two** roles of testis in male reproductive system. **(1 mark)**

.....

.....

14. **Differentiate** between mothering ability and prolificacy **(2 marks)**

.....

.....

.....

.....

15. **State three** ways in which feeding contributes to disease control. **(1½ marks)**

.....

.....

.....

16. **State two** functional differences between rumen and abomasums. **(2marks)**

.....

.....

17. Name four practices carried out in the crush **(2 mks)**

.....

.....

.....

.....

18. Give three dual purpose cattle breeds **(1½ mks)**

.....

.....

.....

19. Give three terms used to describe the following: - (1½ mks)

(i) Mature male pig .....

(ii) Sterilised birds .....

(iii) Mature female goat .....

20. State four reasons for identifying farm animals **(2mks)**

.....

.....

.....

.....

21. State two factors that determine the quality of honey **(1mk)**

.....

.....

22. Give four categories of livestock diseases **(2 mks)**

.....

.....

.....

.....

23. Name three tools used for plumbing **(1½ mks)**

.....

.....

.....

24. State two maintenance practices carried out on an ox-drawn plough **(1 mk)**

.....

.....

25. List two sources of farm's power which are environmental friendly **(1 mk)**

.....

.....

26. State four functions of the lubricating system in a tractor **(2mks)**

.....

.....

.....

27. State two conditions under which a farmer would prefer to use an ox-cart instead of a tractor-drawn trailer **(1mks)**

.....

.....

28. State four qualities considered when selecting a heifer for dairy purposes (**1mks)**

.....

.....

.....

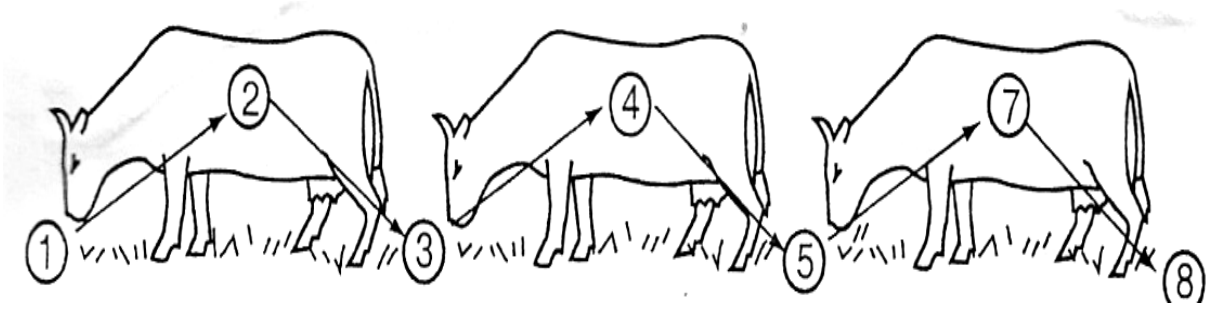
29. Give one role of a damp proof course in the foundation of a farm building **(1mk)**

.....

.....

SECTION B (30MKS)

30. The illustrations below represents the stages of development of a three –host tick. Study it carefully and then answer the questions that follow:



(a) Briefly explain what is happening in the following stages **(4 marks)**

1……..…….....

.....

4……..…….....

.....

5……..……..

.....

7……..…….....

.....

(b) Why do you think that tick control is difficult using acaricides? **(1 mark)**

……..…….....

.....

(c) Name the most common sites the tick can be found on the body of an animal. **(2 marks)**

……..…….....

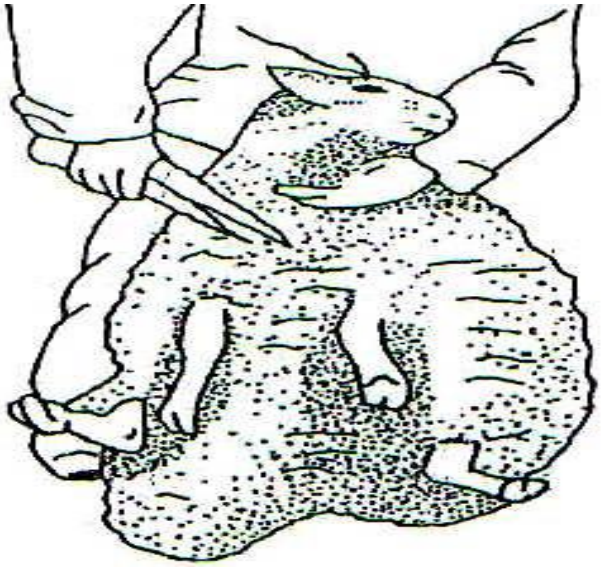
.....

(d) Give **two** examples of a three host tick **(1mark)**

.....

.....

31. The diagram below illustrates a certain practice carried out in sheep management. Study carefully and answer the questions that follow



(i) Identify the practice illustrated above **(1mark)**

.....

State two precautions a farmer should put into consideration when carrying out this practice.

(2marks)

.....

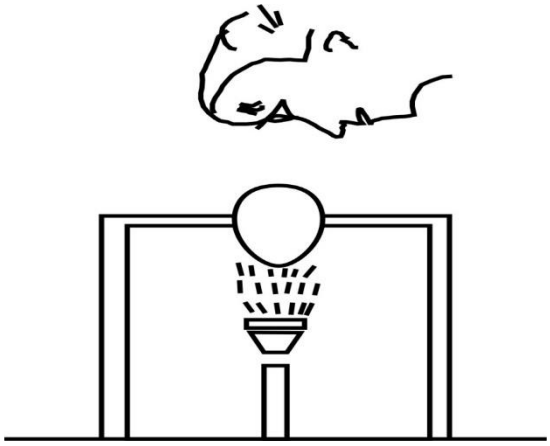
.....

(ii) How often should the practice be carried out? **(1mark)**

.....

.....

32. Below in an activity carried out in poultry production. Study it carefully then answer the questions that follow.



a) Identify the practice being carried out.....**(1 mk)**

b) State three defects that can be detected by this practice **(3 mks)**

.....

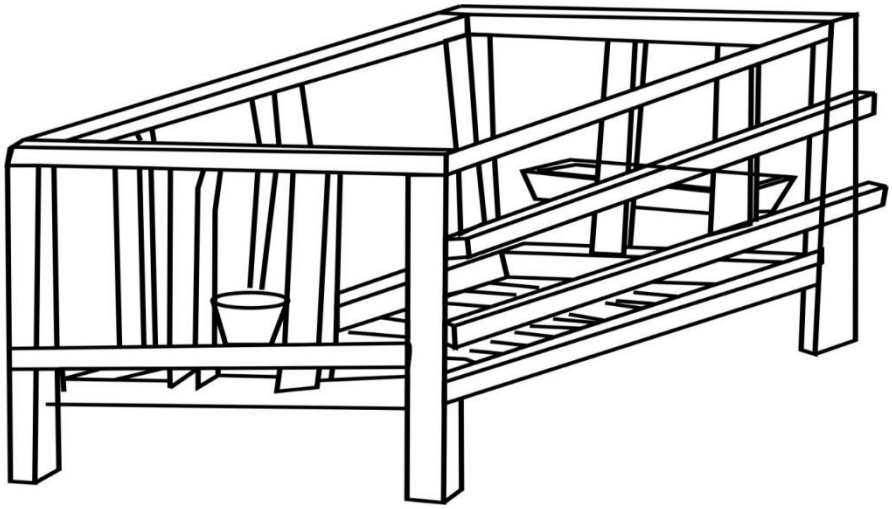
.....

.....

c) State two disadvantages of artificial incubation. **(2 mks)**

.....

.....



33. Use the above diagram of a calf pen to answer the questions that follow.

a) How high should the calf pen be raised from the ground **(1mk)**

.....

b) Give any two reasons why calves are housed singly **(2mks)**

.....

.....

.....

.....

c) Why should the calf pen be near the milking parlour? **(2mks)**

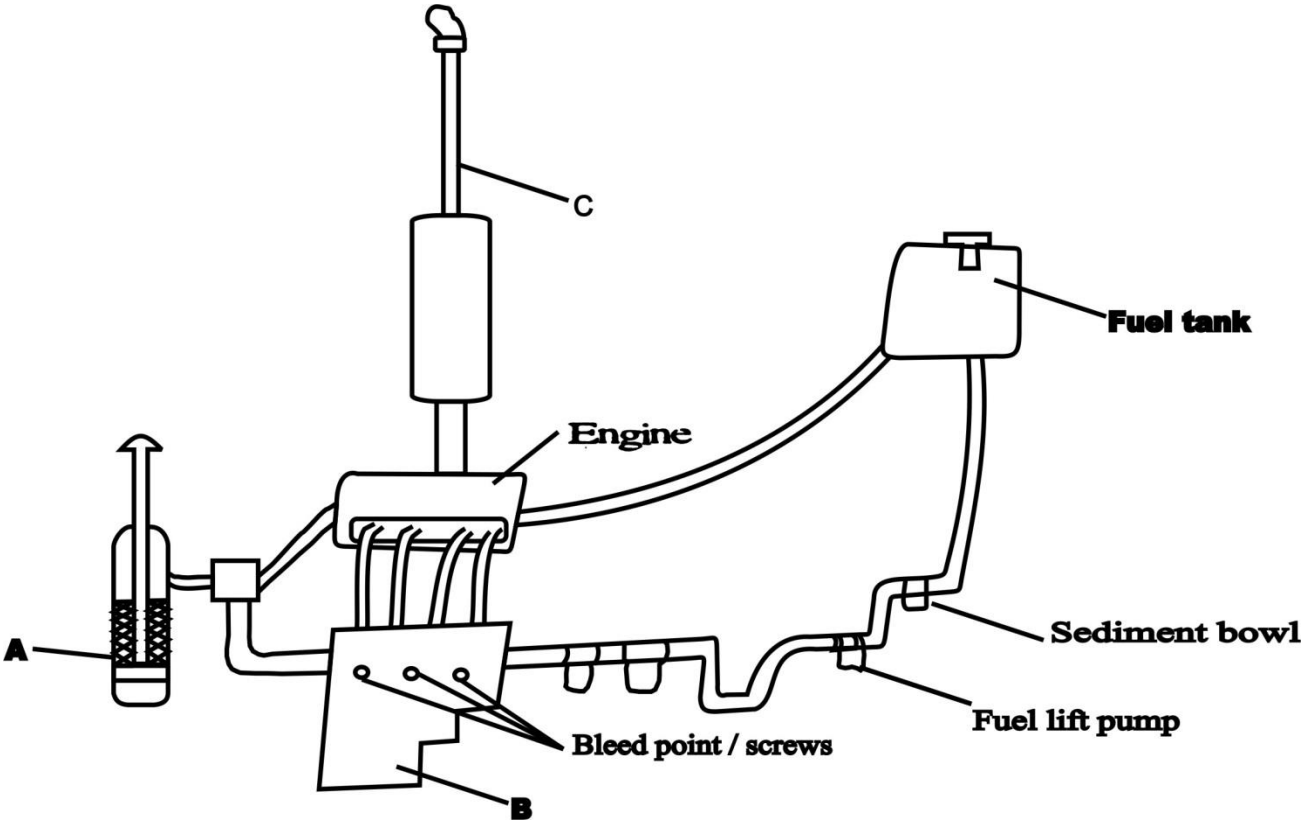
.....

.....

.....

.....

34. Study the diagram below of a diesel fuel system then answer the questions that follow.



a) Identify the parts labelled **(3 mks)**

A.....

B.....

C.....

b) State three maintenance practices carried out on the system **(2mks)**

.....

.....

.....

35. Outline the procedure of proper milking technique **(3 mks)**

.....

.....

.....

.....

.....

.....

.....

.....

SECTION C (20MKS)

36. a) Outline five signs of heat in a cow **(5 mks)**

b) Outline five causes of stress in poultry and describe their control **(10mks)**

c) Using Pearson's square compute a ration with 20% DCP from oats which contains 10% DCP and simsim seedcake containing 60% DCP. (show your working) **(5mks)**

37. a) Outline the daily maintenance practices that should be carried out on a farm tractor **(8 mks)**

b) Outline twelve general symptoms of endoparasite attack in livestock. **(12 mks)**

38. a) State four advantages of using a sub soiler in seedbed preparation **(4mks)**

b) Give five advantages of artificial insemination in cattle management **(5mks)**

c) State five function of water in animal's body **(5mks)**

d) Describe control measures for tape worm in livestock **(6mks)**

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

565/1

BUSINESS STUDIES

PAPER 1

TIME: 2 HOURS

INTRODUCTION TO CANDIDATES

i) Write your name and index no in the spaces provided

ii) Answer all the questions

iii) Write your answers in English

For examiner's use only

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

Question	13	14	15	16	17	18	19	20	21	22	23	24
Marks												

1. Onazi Secondary School will wish to change from an enclosed office to an open office. Highlight **four** advantages that will accrue from this. **(4mks)**

……

……

……

……

2. Motor cycles have recently become a very popular mode of transport in Kenya. List **four** benefits a commuters enjoy by using them. **(4mks)**

……

……

……

……

3. Outline **four** factors that may make it necessary for insurance company to reinsure. **(4mks)**

……

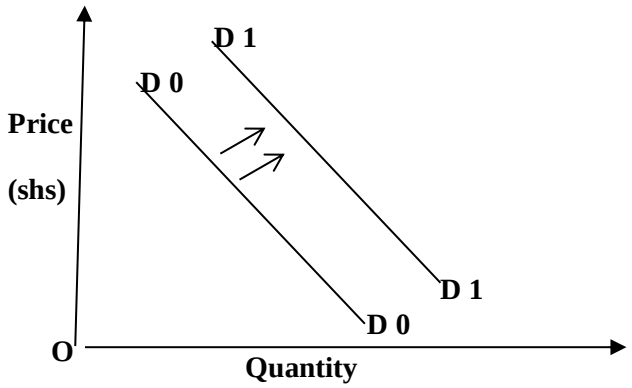
……

……

……

4. The following diagram shows a shift in demand curve. Outline **four** reasons that can lead to this shift.

(4mks)



……

……

……

……

5. Kenya has a few oligopoly firms. Highlight **four** sources of oligopoly powers to these firms.

(4mks)

……

……

……

……

6. Highlight **four** ways in which capital of a business may change **(4mks)**

……

……

……

……

7. For each of the following transactions, indicate with tick **(√)** in the spaces provided whether it will increase, decrease or have no effect on the balance sheet totals. **(4mks)**

Transaction	Increase	Decrease	No effect
a) Investing more cash in business			
b)Paying creditors in cash			
c)Buying a piece of furniture in cash			
d)Paying a creditor using money from private source			

8. Below are some entries in the cash book of Romeo Traders for the month of July 2021.

Cash Book

Dr **Cr**

Date(2021)	Details	Cash (shs)	Bank(shs)	Date (2021	Details	Cash (Shs)	Bank (Shs)
July: 1	Bal b/f	15,000		July: 1	Bal.b/f		100,000
6	cash		20,000	6	bank	20,000	
20	sales		15,000	15	wages	5,000	
28	Debtors	20,000		29	stock		10,000
				31	Bal c/f	19,000	

State the meaning of the following entries. **(4mks)**

a) July 1, bal b/f bank column shs.100,000

……

b) July 6, cash shs. 20,000 and Bank shs. 20,000

……

c) July, 28 debtors shs. 20,000

……

d) July 31 2010, balance c/f shs. 10,000

……

9. Highlight **four** roles of an entrepreneur to the economy of a country. **(4mks)**

……

……

……

……

10. Identify the source documents used to enter the following journals. **(4mks)**

Journal	**Source document**
(i)Purchase journal	(i)
(ii)Returns outwards journal	(ii)
(iii) Sales journal	(iii)
(iv)Cash receipt journal	(iv)

11. State **four** ways in which consumers are likely to suffer when there is no warehousing.

(4mks)

……

……

……

……

12. Highlight **four** disadvantages of concentrating many firms in Nairobi town. **(4mks)**

……

……

……

……

13. Oscar imports goods from South Africa to Kenya. State **four** conditions that would determine the choice of his distribution channel **(4mks)**

……

……

……

……

14. State **four** ways in which Kenya as a country can conserve her economic resources. **4mks)**

……

……

……

……

15. Outline **four** ways in which the legal political environment can influence the activities of a business. **(4mks)**

……

……

……

……

16. For each of the following descriptions, identify the corresponding method of product promotion. **(4mks)**

DESCRIPTION	METHOD OF PROMOTION
Free promotion of a product	
Strategies to increase sales at the point of promotion.	

Impersonal presentation of a product through the mass media	
Ment to improve the reputation of a firm	

17. Outline **four** factors that influence the amount of money held by an individual for precautionary motive. **(4mks)**

……

……

……

……

18. The following balances relates to the business of Super loaf traders during the period ended 30th June 2021.

	Shs.
Rent received	12,000
Salaries and wages	48,000
Gross profit	120,000
Discounts received	7,500
Insurance	12,500
Carriage on sales	15,000
Discounts allowed	6,000

Prepare the business's Profit & loss a/c for the period ended 30th June 2021.

19. The following transaction was extracted from books of Kuria business on 31st March 2004.

Stock (01/04/05)	8,000
Stock (31/03/06)	9,000
Purchases	4,500
Sales	21,000

Calculate:

(i) Margin (2mks)

(ii) Rate of stock turn over. (2mks)

20. Highlight **four** factors that must be considered before spending public funds. **(4mks)**

……

……

……

……

21. Outline **four** circumstances under which a firm may be located near the source of its raw materials. **(4mks)**

……

……

……

……

22. Highlight **four** circumstances under which face – to face communication would be preferred to written communication in a firm. **(4mks)**

……

……

……

……

23. State **four** ways how consumers can protect themselves against malpractices by private business people. **(4mks)**

……

……

……

……

24. Highlight **four** problems associated with the measurement of national income using the output approach. **(4mks)**

……

……

……

……

25. The aggressive campaign for citizens to plan their families seems to be causing a decline in the country's population growth. Outline four possible effects of this. **(4mks)**

……

……

……

……

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

565/2

BUSINESS STUDIES

PAPER 2

TIME: 2 ½ HOURS

INSTRUCTIONS TO CANDIDATES

Answer any five questions in the spaces provided.

FOR EXAMINER'S USE ONLY

Question No	1a	1b	2a	2b	3a	3b	4a	4b	5a	5b	6a	6b
Marks												

1. (a) Explain five benefits that could accrue to a customer who buys goods from a departmental store. **(10mks)**

(b) Explain five roles played by licensing as a government regulatory tool. **(10mks)**

2. (a) Explain five services that the central bank of Kenya offers to commercial banks. **(10mks)**

(b) The following information relates to the business of Kipisigs Traders for the week ended 29th Feb 2016.

Feb 24th Started business with shs 24,000 in thebank.
Feb 25 th Bought goods worth shs 18,000 by cheque.
Feb 26 th Sold goods for cash shs 18,900
Feb 28 th Cash sales worth Kshs 5,625
Feb 29 th Paid commission Kshs 900 in cash.

Required

Prepared ledger accounts and balance them off. **(10mks)**

3. (a) Describe five channels followed in exporting agricultural product. (10mks)

(b) he following trial balance was extracted from Milka traders on 31st Dec 2020.

	Dr	Cr
	Sh	Sh
Capital		250,000
Stock	25000	
Machinery	250,000	
Motor vehicle	87000	
Purchase	360,000	
Sales		600,000
Returns inwards	40,000	
Returns outwards		20,000
Discount received		5,000
Carriage inwards	2000	
Carriage outwards	3000	
Bad debts (written off)	80,000	
General expenses	88,000	
Debtors	18,000	
Creditors		49,000

Rent	1000	
	954.000	954.000

Closing stock wa

Additional information; sh. 22000

Prepare Milka traders Trading, profit and loss account for the year ending 31/12/2020. (10mks)

4. (a) Explain five reasons why a country imposes taxes on her citizens. **(10mks)**

(b)Outline five differences between a public limited company and a cooperative society.**(10mks)**

5. (a) Using a diagram illustrate the effects of a positive shift of a demand curve on the equilibrium point, price and quantity **(10mks)**

(b) Explain five features of land as a factor of production. **(10mks)**

6. (a) Mmanyi Enterprises have decided to construct their own warehouse. Explain five benefits they are likely to derive. **(10mks)**

(b) Explain five importance of filing documents in an organization **(10mks)**

FOR MARKING SCHEMES CONTACT *0746 222 000*

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

101/1

ENGLISH

PAPER 1

FUNCTIONAL SKILLS

TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES

a) *Write your name and index number in the spaces provided above.*

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

c) *Answer all the questions in this paper.*

d) *All your answers must be written in the spaces provided in the question paper.*

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

f) *Candidates must answer the questions in English.*

FOR EXAMINER'S USE ONLY

Question	Maximum score	Candidate's Score
1	20	
2	10	
3	30	
Total Score		

Q**1. FUNCTIONAL WRITING (20MRK)**

Imagine you are the secretary of the wildlife club in your school. Your club is meeting for the second time this term. Six members attended but two could not and gave apologies. The patron is invited and is attending as well. Agenda include: registration of new members, club elections and club prefects for 2021. AOB include invitation of guest speakers and end of the year party.

Write minutes of the proceedings of the meeting.

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

Q2. CLOZE TEST – 10MKS

Read the following passage and fill in the blank spaces with the most suitable word.

Precis writing is a very fine exercise in reading. Most people (i) …….carelessly and retain only a vague idea of what they have read. You can easily test the (ii)…….of your reading. Read in your usual way a chapter or even a page of a book and (iii)……having closed your book, try to put down briefly the (iv)……..of what you have read. You will probably find that your memory of it is (v)……and muddled. Is this because your memory is (vi)……? No, it is because your attention was not fully (vii) ……..on the passage while you were reading. The memory cannot (viii)……..what was never given to hold; you did not remember the passage properly because you did not properly (ix)…….it as you read it.

Now précis writing forces you (x)……..pay attention to what your read; for one cannot write a summary of any page unless he has clearly grasped its meaning.

Q3. ORAL SKILL – 30MKS)

a) Read the oral narrative and the answer the questions that follow. (9mks)

<u>The Chameleon and The Hare</u>

Chameleon and the hare had always misunderstandings. They always quarrelled over who between them could run faster than the other.

"Chameleon, you are the slowest animal on earth," laughed the hare. "you cannot compete in any race, even among the slowest animals,, including the snail."

"My friend hare, please avoid blowing your own trumpet. I am certain you cannot defeat me in a race. I will finish the race and have enough time to take a meal and a nap before you arrive.

And the great competition was set. Then the day came.

"On your marks, set, goo!"The elephant started off the race.

No sooner had the race started than the chameleon jumped on the hare's tail. The hare ran like he had never run before. At the finishing line, he started celebrating but when he attempted to sit down and wait for the chameleon, the chameleon shouted, "wooii! Please do not sit on me! I arrived long enough to have a meal and a nap. You can never defeat me in a race! Shame on you!"

QUESTIONS

i. State two ways in which you would capture the attention of the audience before starting the performance of this narrative. **(2mk)**

……

……

……

……

ii. If you were the narrator of the story, explain three ways in which you would know that you had captured and retained the attention of the audience. **(3mks)**

……

……

……

……

……

……

iii. Identify two possible cues that the audience was not listening to you keenly. **(2mks)**

……

……

iv. "Wooi!..." comment on the narrative style of this statement. **(2mks)**

……

……

……

b) ***Identify the silent letters in the following words.*** **(6 marks)**

i. Practically
ii. Ballet
iii. Bristle
iv. Guilt
v. Baguette
vi. Psychotic

c) ***Pick out the word in which the underlined part is pronounced differently (3mks)***

i) Lei<u>sure,</u> mea<u>sure</u>, pre<u>ssure,</u> plea<u>sure</u>

ii) Ar<u>ch</u>, Mar<u>ch</u>, sear<u>ch</u>, monar<u>ch</u>

iii) Trou<u>gh</u>, dou<u>gh</u>, tou<u>gh</u> cou<u>gh</u>

d) ***Underline the stressed syllables in the following words.*** **(3 marks)**

i. Palatial

ii. Rejuvenation

iii. Police

e) You have arrived late for work and you are talking to your boss. Fill up the blanks. (9mks)

You:……(1mk)

Boss: Good morning Albert. Why have you come late?

You: …….....(1mk)

Boss: It must been really a huge traffic jam. You are two hours late.

You: …….....(1mk)

Boss: But on often come late, it's your habit.

You:……

……(2mks)

Boss: (Interrupting) I think you should resign and look for another job.

You:……

……(2mks)

Boss: You have already got many chances. How will this office run if the staff come late?

You:…….(1mk)

Boss: I will give you the last chance. Now, get up and go to your work.

You: ……(1mk)

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

101/2

ENGLISH

PAPER 2

(Comprehension, literary Appreciation and Grammar)

2 ½ hours

INSTRUCTIONS

a) Ensure you write all your details in the space provided above

c) All questions in this paper are compulsory.

b) Answer ALL questions in the spaces provided.

FOR OFFICIAL USE ONLY

Question	Maximum Score	Candidate's Score
1	20	
2	25	
3	20	
4	15	
TOTAL	80	

1) Read the following passage and answer the questions that follow.

In case you've ever wondered how much time your daughter spends taking selfies, a poll in 2015 found that the average woman between 16 and 25 years old spends over five hours a week. It sounds like a lot unless you've tried to take selfies yourself and know what an elaborate process it can be. Women take an average of seven shots to get one image, according to the poll; Kim Kardashian said it takes about 15 to 20. Then there are the filters, not to mention real-life alterations like changing lighting or touching up makeup. There are also apps you can use for more drastic procedures like changing your bone structure, slimming your waistline, erasing pimples, and more.

Selfies can be silly and lighthearted, of course, notes Alexandra Hamlet, PsyD, a psychologist at the Child Mind Institute. But she also recognizes the darker side, when photos become a measure of self-worth. "With makeup, with retouch, with filters, with multiple, multiple attempts, it's almost like you're never going to stack up," says Dr. Hamlet, "And that is where I think it gets dangerous."

We're used to worrying about how girls will be affected by seeing too many air-brushed images of models in magazines or movies. But now young people themselves are the models and they're wielding their own image-editing software. This leads to a lot of self-scrutiny as they try to perfect their own images, and comparisons to the pictures their peers are posting. Experts are understandably worried about what this means for kids' self-esteem

If you've been telling your daughter that she's beautiful just the way she is, she's getting a different message when she opens up *Snapchat* and sees filters and lenses that alter appearances. Pictures used to be final; now we have post-production.

Dr. Hamlet acknowledges that some of the filters are fun and distort in amusing ways, but also points out there's a so-called "pretty filter" on *Instagram* and *Snapchat*. Beautifying filters are used almost reflexively by many, which means that girls are getting used to seeing their peers effectively airbrushed every single day online. There are also image altering apps that teens can download for more substantial changes. *Facetune* is one popular one, but there are many, and they can be used to do everything from erase pimples to change the structure of your face or make you look taller. One app called *RetouchMe* gives your photo a "professional retouch" using a photo editing team for under a dollar. The possibilities can be overwhelming, particularly since girls know they are scrutinized on their appearance — as, of course, they are scrutinizing their peers.

Self-esteem often takes a hit when you start comparing yourself too much to other people, which is something social media seems to be made for. One study found that frequently viewing selfies led to decreased self-esteem and decreased life satisfaction. Another study found that girls who spend more time looking at pictures on Facebook reported higher weight dissatisfaction and self-objectification.

Parents who want to provide a healthy counterbalance to the pressures of social media can start by evaluating how they use social media themselves. Make sure you aren't talking too much about the pictures you post or see, or ask your children to take too many pictures. The occasional photo is fine, of course, but make a point of prioritizing being in the moment, too. "If you're taking your kid to a concert, don't allow them to film the whole thing and see it only through the eyes of the camera," says Dr. Hamlet. "That's reinforcing this concept that just being here is not good enough."

QUESTIONS

1. What shows that women take selfies seriously? **2mks**

……

……

……

2. Why does the author mention Kim Kardashian? **2mks**

……

……

……

3. Explain how selfies become harmful to those who take them. **3mks**

……

……

……

……

4. What do you think is the different message one's daughter gets when she opens Snapchat? **2mks**

……

……

……

5. Explain the relationship between self-esteem and social media. **3mks**

……

……

……

……

6. Rewrite the following sentences as instructed: **2mks**

i. "If you're taking your kid to a concert, don't allow them to film the whole thing and see it only through the eyes of the camera," says Dr. Hamlet. (Re-write in reported speech)

……

……

ii. Dr. Hamlet acknowledges that some of the filters are fun and distort in amusing ways, but also points out there's a so-called "pretty filter" on Instagram and Snapchat. (Replace the underlined words with suitable word)

……

……

……

……

7. Illustrate and comment on the effectiveness of quotation from authority. **2mks**

……

……

……

8. Explain the meaning of the following words and phrases as used in the passage: **3mks**

a) stack-up

……

……

b) overwhelming

……

……

c) self-esteem

……

……

2) EXCERPT: BLOSSOMS OF THE SAVANNAH

Mama Milanoi wondered where that culture had fled to. Was there no one to tame the likes of Oloisudori? Had the culture become moribund, useless and impotent? Another husky whisper told her the Maa culture had gone nowhere. It was still there and it was intact. It was like the waters of Nasila and all other rivers of Maa.

Nasila river had been there as far back as Nasila people could remember. It had sustained the life of man and beast from time immemorial. But Nasila water was no longer the water she drew when she was a little girl. It was no longer the water she and her friends scooped up with their hands and drank happily to quench their thirst after a long hot day in the fields. No, the water was no longer the same. The water had been polluted. In those days the water was so clean and clear that the pebbles on the

riverbed were visible. Even the mudfish and the crab-like creatures called *enkileleo* were so clearly visible in the water one would have thought they were in a clear glass container.

That was no more. Upstream, people were washing vehicles, they were washing smelling hides and skins, they were emptying sacks of agricultural chemicals and other offending and poisonous pollutants into Nasila river. It would not be long, Mama Milanoi reasoned sorrowfully, before the life-giving water of Nasila began to sicken and kill.

And so was Nasila culture. The founder had intended that the culture would regulate the lives of the people, and indeed it did. It charted out the way for everyone, from cradle to the grave. It defined relationships, it created laws that governed ownership of property and settled disputes. It did not discriminate, it did not favour anyone over the others, it gave everyone a chance to live a full life; it protected everyone within its confines and provided cleansing procedures for those who defiled it. It was simply a cherished way of life for all the Maa people, including those in Nasila. It was no more. It was now defiled and polluted by the likes of Oloisudori. Yes, the old Nasila culture had become mutable and it now contained defiant mutants that it could not regulate and which were above Nasila Laws.

She thought of her own house. Yes, change was creeping in. Her daughters were different. They had gone through a school system that intermingled them with children from other cultures. They knew very little of Nasila culture. They were children of a new undefined culture. Theirs was a mutant of another kind.

Her daughter Resian, Mama Milanoi thought sadly, as she turned once more on her bed, was a hard nut to crack. She was obstinate a nd defiant. She certainly epitomized the new undefined culture. She knew she had an independent mind and she was not easy to handle. If her father thought she was docile and that he would just call her and hand her over to Oloisudori, he was in for a rude shock. No amount of intimidation or threats could easily break her. She always said she knew her rights and would not allow anyone to trample on them.

Questions

a) What happens after this excerpt? **(2mks)**

……

……

……

……

b) How could the culture, Mama Milanoi is thinking about, come to her rescue in her current predicament basing your answer from elsewhere in the text? **(4mks)**

……

……

……

……

c) Explain the relationship between the current state of the Nasila river and the Nasilian culture **4mks**

……

……

……

……

……

d) Explain one way the Kaelo family find themselves at odds with the Nasilian culture **2mks**

……

……

……

e) What do we learn about Resian from this excerpt? **2mks**

……

……

……..

f)Explain the major issue emerging from this excerpt? **2mks**

……

……

……

g) What is the prevailing mood in this excerpt? **2mks**

……

……

……

h) Illustrate two stylistic devices evident in this excerpt. **4mks**

……

……

……

……

……

……

i) From your understanding of the entire text, explain and illustrate one way the Nasilian culture defines relationships. **2mks**

……

……

……

……

j) In those days the water was so clean and clear that the pebbles on the riverbed were visible.

(*Rewrite the sentence starting with; So…)* **1mk**

……

……..

3) LITERARY APPRECIATION

Read the following poem and answer the questions that follow:

MUNICIPAL DUTY

She stood by the wares
Her child tied to the back
Nibbling a dry slice
While she haggled with customers,
As people milled by
To this and from that care,
With scary eyes.

With no warning
She had gathered
The sack across the chest
Darted off
Like an antelope who has seen a lion.

He raced after her
Wielding the municipal club
Knocking off pedestrians
In the municipal rush.

The child shrieked like a police siren
But he wasn't deterred
She looked behind
Gasping for scarce air
He only a step away.

Not caring for the lights she dashed into the street.
As he raised the rungu
The driver stepped on the brakes
The car skidded with momentum
Her mouth opened, dazed
But no sound came
Except the agonized crash
Of steel, flesh and macadam
Mashed
Leaving the uniformed phantom
Transfixed
Executing municipal duty.

QUESTIONS

a) Explain briefly what happens in the poem. **4mks**

……

……

……

……

……

……

……

b) Who is the persona in the poem? **2mks**

……

……

……

c) Give evidence from the poem to show that the woman is poor. **2mks**

……

……

……

d) Identify an image used in the poem and comment on its effectiveness **2mks**

……

……

……

e) How is the askari's inhumanity brought out in the poem? **4mks**

……

……

……

……

……

……

f) What is the persona's attitude towards the askari in this poem? **2mks**

……

……

……

g) (i) She looked behind. Gasping for scarce air. (join the sentences using 'as') **1mk**

……

……

(ii) He only a step away. (Rewrite the sentence to make it complete) **1mk**

……

……

Explain the meaning of the following lines in the context of the poem. **(2mks)**

(a) "nibbling a dry slice"

……

……

(b) " Gasping for scarce air".

……

……

4) GRAMMAR

A. Rewrite each of the following sentences according to the instructions given. Do not change the meaning. **5mks**

i) I do not want to see you anymore, please leave.

(Begin: I would rather…)

……

ii) He will not pass his examination until he realizes the value of hardwork

(Begin: Not …)

……

iii) She was poor. She completed her schooling. *(Join into one sentence using the words:' in spite of')*

……

iv) Mariam would have won the competition if she had done enough practice.

(Rewrite starting with 'Had …)

……

v) Lake Victoria is the largest lake in Africa.

(Rewrite using 'larger' instead of 'largest')

……

B. Join the following sentence using a present participle. **1mk**

The thief cut through the padlock. He opened the wooden door.

……

……

C. Fill in the blank spaces using the most appropriate preposition. **2mks**

i) He sits …….. at least six committees.

ii) The lazy live …….. the sweat of the diligent.

D. Choose the correct pronoun from the options provided. 2mks

i) Between you and ……. no other choice seems reasonable.(I/me)

ii) To …… (who/whom) are you sending this parcel?

E. Rewrite the following sentence below, replacing the underlined idiomatic expression with words of a similar meaning. 1mk

i) Johnny had <u>the best of both worlds</u> because of his diverse heritage.

……

……

F. Fill in the blanks with the most appropriate form of the word in brackets 2mks

i) Kenya Premier League is still plagued by fan …….. (hooligan)

ii) He was ……. (mischief) named in the scandal

G. Complete the following sentence using an infinitive formed from the verb in brackets 2mks

i)…… (know) all is ……. (forgive) all.

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

101/3

ENGLISH

PAPER 3 (CREATIVE COMPOSITION AND ESSAYS BASED ON SET TEXTS)

2 ½HOURS

INSTRUCTIONS TO THE CANDIDATES.

a) In question 1, choose either (a) or (b).
*b) In Answer **THREE** questions only.*
*c) Question 1 and 2 are **COMPULSORY**.*
*d) Question 3, choose only one of the **OPTIONAL TEXT** you have prepared on.*
e) Each of your essays must not exceed 450 words.
f)All the answers must be written in the answer booklet provided.

FOR EXAMINERS USE ONLY

QUESTION	MAXIMUM SCORE	STUDENT'S SCORE
1.	20	
2.	20	
3.	20	
TOTAL	60	

Either

1. Imaginative Composition (Compulsory) 20 marks

a) Write a composition beginning with the words:

"You will serve as an example to the rest of the students in this school", the principal said as he pushed me into his office.

Or

b) Write a composition based on the saying, "Patience pays".

2. Drama (Compulsory) 20 marks

Henrik Ibsen, 'A Doll's House'

'The play 'A Doll's House 'is a reflection of the sacrificial role of women in family and society.' Write an essay in support of this statement drawing illustrations from Henrik Ibsen's 'A Doll's House'.

3. Optional texts

a) Memories we lost and other Stories

Life contrasts the way people live in the society. Justify this statement basing your illustrations using Hitting Budapest by No Violet Bulawayo

b) Inheritance by David Mulwa

Resilience always pays. Validate this statement.

c) The pearl by John Steinbeck

c) Fortune makes individuals wish themselves and their families well. Write a composition to show the truthfulness of this statement.

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

102/1

KISWAHILI

INSHA

Paper 1

TIME: 2 HOURS

Maagizo

(a) ***Andika Insha mbili. Insha ya kwanza ni ya lazima.***

(b) ***Kisha chagua Insha nyingine moja kati ya hizo tatu zilizobakia.***

(c) ***Kila Insha isipungue maneno 400.***

(d) ***Kila Insha ina alama 20.***

(e) ***Kila Insha lazima iandikwe kwa lugha ya Kiswahili.***

(f) ***Karatasi hii ina kurasa 2 zilizopigwa chapa.***

FOR MARKING SCHEMES CONTACT *0746 222 000*

1. LAZIMA

Mwandikie barua mhariri wa Gazeti la Baraka ukimweleza sababu za watoto wengi katika kaunti yako kuacha shule na kujiingiza katika ajira za mapema.

2. Vipakatalishi vimeleta manufaa mengi nchini .

Fafanua.

3. Andika insha itakayothibitisha ukweli wa methali:

Mcheka kilema hafi bila kumpata.

4. Andika kisa kitakachoanzia kwa maneno yafuatayo:

Kushoto kulikuwa na jitu la miraba minne ambalo lilitema cheche za matusi ungedhania ni karakana …

……

……

……

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

102/2

KISWAHILI

LUGHA

Paper 2

TIME: 2 ½ HOURS

MAAGIZO KWA WATAHINIWA

1. *Andika jina lako, shule na nambari yako katika nafasi ulizoachiwa hapo juu.*
2. *Andika tarehe ya mtihani na utie sahihi yako katika nafasi ulizoachiwa hapo juu.*
3. *Jibu maswali yote.*
4. *Andika majibu yako katika nafasi ulizoachiwa baada ya kila swali katika kijitabu hiki cha maswali.*
5. *Watahiniwa ni lazima waangalie kama kurasa zote za karatasi hii zimepigwa chapa sawasawa na kuwa maswali yote yamo.*

KWA MATUMIZI YA MTAHINI PEKEE

SWALI	UPEO	ALAMA
1 UFAHAMU	15	
2 UFUPISHO	15	
3 MATUMIZI YA LUGHA	40	
4 ISIMU JAMII	10	
JUMLA	80	

FOR MARKING SCHEMES CONTACT *0746 222 000*

SEHEMU YA A: UFAHAMU (alama 15)

Soma taarifa ifuatayo kisha ujibu maswali

"Swala la idadi kubwa ya watoto wadogo wanaoendelea kumiminika mijini na kuonekana wakiranaranda mijini ovyo,halijapewa umuhimu wowote wa haja na serikali za nchi nyingi,licha ya mijadala katika warsha anuwai,zilizofanyika kujadili swala hili nyeti.

Kwa kutokuwa na sheria ama sera iliyo wazi kuhusu haki na usalama wa watoto,sarikali zetu hazina budi kukubali kubeba uzito wote wa lawama. Hii ni kwa sababu, serikali zetu zimelipuuza na kuvalia miwani swala hili kwa kuchukulia kuwa litapotea lenyewe katika hewa yabisi. Yafaa ifahamike kuwa usalama wetu katika siku zijazo utategemea jinsi tutakavyolikabili ana kwa ana tatizo hili wakati huu. Wakati wa kutenda ni sasa. Aidha, watoto hawa wanaokulia mitaani bila malezi,maelekezo wala mwongozo mwafaka wa kimaisha, wanakua bila mapenzi hivyo hawajui maana ya kupenda. Wanachokijua ni chuki na haja ya kulipiza kisasi didhi ya jamii iliyowachonga jinsi walivyo. Hawajali lolote hata kifo. Wako tayari kujikabidhi kwa haini yeyote mwenye nia mbaya,bila kujali matokeo, muradi tu, wapate riziki.

Tunapendekeza kwa serikali, washika dau kama vile mashirika ya kujitolea, viongozi wa dini, shule, vyuo na wananchi kwa jumla wachange bia katika kutafuta mikakati ya kulitatua tatizo hili kabla halijageuka kuwa janga la kijamii ambalo tutashindwa kulimudu. Mpango wa vijana hawa kujiunga na huduma ya taifa ni jambo linalofaa kutiliwa maanani.

Tunapendekeza makao Zaidi ya watoto wanaozurura mijini yajengwe ambapo watapata mafunzo ya kiufundi yatakayowawezesha kujitegemea maishani. Badala ya kulitegea mgongo swala hili, serikali zinawajibika kuwasajili hawa watoto ili waweze kuunganishwa na familia na koo zao. Utafiti uliofanywa na wataalamu wa Elimu jamii umebainisha kuwa ni asilimia kumi tu ya watoto hawa wa mitaani wasiokuwa na mahali wawezapo kupaita nyumbani. Asilimia tisini iliyobaki, angalau wana mahali wanapoweza kupaita nyumbani ilhali wanaendelea kuwa mitaani. Wazazi tumesahau wajibu wetu. Wengi wetu tumelikimbia jukumu la ulezi tulilopewa na muumba. Hawa waliojipaka masizi mwilin mzima, wanaozurura ovyo mitaani, si matokeo ya maumbile;hawakuja duniani kwa sadfa, hawakuulizwa wala kushauriwa. Makosa ni yetu wazazi. Tuliwaleta hapa duniani, kisha tukawakimbia.Hatutasamehewa duniani na akhera.

Mwenye njaa hana miiko. Ili kijiruzuku, hawa watoto daima wanachumia jaani.Kwa kudura ya jalia, huenda siku moja watalia kivulini. Asiyekuwa na wake ana mungu.Aghalabu, watoto wanaozurura mitaani hupewa pesa na wafadhili. Wakati mwingine wanaiba. Maisha haya ya kuomba au kuiba wanaona yanaridhisha Zaidi kuliko kumenyeka na kazi ya kibarua kutwa kucha. Kwa bahati mbaya, watoto hawa wamatumia pesa wanazopata kutoka kwa wafadhili kujichimbia kaburi. Aidha pesa wanazopatiwa watoto hawa wanazitumia kununulia gundi badala ya chakula.

Wafadhili wanashauriwa wawape chakula hawa watoto badala ya pesa taslimu. Kusema kweli, unapompa mtoto wa mitaani pesa,utakuwa unainua biashara ya mwenye kiwanda cha gundi,jambo ambalo litakuwa sawa na kuweka sahihi mkataba wa kifo cha mtoto mwenyewe.

Wataalamu wa afya wanaonya kuwa gundi ikivutwa kwa muda mrefu inaweza kusababisha upofu au kifo.Wataalamu hawa wanazidi kutuarifu kuwa matumizi ya muda mrefu ya gundi huathiri ubongo,figo na maini. Mtumiaji pia anaweza kupoteza uwezo wa kutembea na hata kupooza kabisa.

FOR MARKING SCHEMES CONTACT *0746 222 000*

Sababu wanazotoa hawa watoto ni kwamba, uvutaji gundi,huwaondolea njaa,baridi ya usiku na kuwatuliza mawazo. Ni jambo la kusikitisha kwamba tunaendelea kushuhudia bila kujali hawa watoto ambao ni kiungo cha jamii yetu,wakijiangamiza. Wananchi kwa ujumla hawaha budi kuhamasishwa dhidhi ya athari ya matumizi ya gundi.Wafanya biashara wanaowauzia watoto hawa gundi yafaa wakome,la sivyo wachukuliwe hatua.Kutolitatua tatizo hili la watoto wa mitaani hivi sasa,kutapeleka kuwako kwa kizazi cha mitaani ambacho kitazaliwa mitaani,kulelewa mitaani,kuoa mitaani na kufia mitaani.Kadiri mataifa yanavyoendelea kujitia hamnazo kuhusiana na swala hili,ndivyo tunavyokubalia jinai itawale,sasa na wakati ujao.

Hawa watoto watakapokua,watageuka kuwa wapigaji watu kabari,majambazi,wezi wa kutumia nguvu ama watatumiwa na mahaini kutimiza uhaini wao.Hawa watoto wenye njaa,watalazimika hatimaye,kuwatoa wenywe shibe tonge mdomoni.Matokeo ya hali hii ni kwamba katika siku zijazo,hawa ndio watu watakaotunyima starehe ya kulala unono.Watatuchafya mitaani,majumbani,vijijini na kutuvizia mabarabarani.Tuna sababu nzuri ya kutiwa hofu na tatizo hili,kwani jinsi kizazi kinavyozidi kupanuka,inaonekana tumelitega bomu ambalo litakuja kutulipukia usoni mwetu.”

Maswali

(a) Taja jambo moja linalochangia kuweko kwa watoto wanaorandaranda mitaani. **(alama 1)**

……

……

……

(b) Maisha ya mitaani huathirije watoto? **(alama 3)**

……

……

……

……

……

……

……

(c) Tatizo la watoto wanaorandaranda mitaani laweza kutatuliwaje?

(alama 3)

……

……

……

……

……

……

……

(d) Eleza maana ya: **(alama 2)**

i. Hawa watoto wanachumia jaani

……

……

……

ii. Jinsi kizazi cha mitaani kinavyozidi kupanuka,inaonekana tumelitega bomu ambalo litakuja kutulipukia usoni mwetu. **(alama 2)**

……

……

……

……

iii. Mwenye njaa hana miiko. **(alama 2)**

……

……

……

……

(e) Eleza maana ya maneno yafuatayo kama yalivyotumika kwenye taaria: **(alama 2)**

i. Aidha:

……

……

……

ii. Gundi:

……

……

……

*2.**UFUPISHO:(ALAMA 15)***

Soma makala yafuatayo kisha ujibu maswali yafuatayo

Lugha ndio msingi wa maandishi yote. Bila lugha hakuna maandishi. Kila jambo tufanyalo kuhusiana na lugha husitawisha ufahamu wetu wa mambo tusomayo. Mazoezi katika kuandika husitawisha ufahamu katika kusoma kwa sababu katika kuandika ni lazima kuyatumia maneno vizuri na kufahamu ugumu wa usemi. Twajifunza matumizi ya lugha katika kuzungumza na kuwasikiliza wengine wakizungumza. Lugha tusomayo ni anina ya lugha ya masungumzo.

Kuna ujuzi mwingi katika kuzungumza kama vila michezo ya kuigiza, hotuba, majadiliano na mazungumzo katika darasa. Haya yote husaidia katika uhodari wa matumizi ya lugha. Ujuzi wa kila siku utasaidia katika maendeleo ya kusoma na usitawi wa msamiati. Ikiwa mwanafunzi amemwona ndovu hasa, atakuwa amejua maana ya neno ndovu vizuri zaidi kuliko mwanafunzi ambaye hajawahi kumwona ndovu bali ameelezwa tu vile ilivyo. Vilevile ujuzi wa kujionea sinema au michoro husaidia sana katika yaliyoandikwa. Ikiwa mwanafunzi ana huzuni au ana furaha, akiwa mgonjwa au amechoka au amefiwa, haya yote ni ujuzi. Wakati juao mwanafunzi asomapo juu ya mtu ambae amepatikana na mambo kama huyo hana budi kufahamu zaidi.

Karibu elimu yote ulimwenguni huwa imeandikwa vitabuni. Hata hivyo, lugha zote hazina usitawi sawa kuhusu fasihi. Kwa bahati mbaya lugha nyingine hazijastawi sana na hazina vitabu vingi. Fauka ya hayo , karibu mambo yote yanayohusiana na elimu huweza kupatikana katika vitabu kwenye lugha nyingine.

Inambidi mwanafunzi asome vitabu au majarida juu ya sayansi au siasa au historia, lakini haimbidi kusoma tu juu ya taaluma fulani anayojifunza . Inafaa asome juu ya michezo, mambo ya mashairi na juu ya mahali mbalimbali ili kupata ujuzi wa mambo mengi.

a) Fupisha aya za kwanza mbili kwa kutumia maneno 65 (alama 10, 1 ya utiririko)

Matayarisho

……

……

……

……

……

……

……

……

Jibu

……

……

……

……

……

……

……

……

……

b) Kwa kuzingatia habari zote muhimu na bila kupoteza maana asilia, fupisha aya ya mwisho (Maneno 30) (alama 5 utiririko)

Matayarisho

……

……

……

……

……

……

……

……

……

……

Jibu

……

……

……

……

……

……

……

……

<u>MATUMIZI YA LUGHA (ALAMA 40)</u>

(a) Toa mifano miwili miwili ya (al.2)

i. Sauti ghuna ambazo ni vipasuo ……..……..

ii. Sauti sighuna ambazo ni vikwamizo ……..……

(b) Onyehsa mofimu katika neno Aliyemcha (al.2)

……

(c) Andika sentensi yenye muundo ufuatao (al.2)

KN(W+V) + KT (t +RH)

……

(d) Tumia neno shirika kama nomino na kama kielezi katika kutunga sentensi moja (al.2)

……

(e) Kwa kutunga sentensi vumisha nomino nguruwe kuwa kivumishi cha idadi bainifu.

(al.1)

……...……

(f) Andika sentensi ifuatayo katika hali ya kutendewa (al.1)

Mtoto wa waziri amekufa

……

(g) Yakinisha sentensi ifuatayo katika wakati ujao hali timilifu wingi (al.2)

Msomi hakutuzwa siku hiyo

……...

(h) Tunga sentensi moja inayobainisha maana mbili tofauti za neno chuma

(al.2)

……..

(i) Tambua kiima na aina za yambwa katika sentensi ifuatayo. (al.4)

Mwalimu mkuu hupigiwa nguo pasi na Maria

……

……

……

……

(j) Kwa kutumia mifano mwafaka fafanua miundo yoyote miwili ya kirai nomino

(al.2)

……

……

……

(k) Andika sentensi ifuatayo kwa wingi (al.2)

Mgeni huyo na mwingine walikula wali kwa uma

……

……

(l) Andika neno lenye silabi funge yenye muundo wa konsonanti moja

(al.1)

……

(m) Badilisha sentensi ifuatayo iwe katika udogo wingi (al.2)

Ng'ombe wangu ana ndama mdogo

……....

(n) Tunga sentensi zenye mipangilio ifuatayo; (al.4)

i. Kishazi tegemezi na kishazi huru

……..……..…

ii. Kishazi tegemezi na kishazi tegemezi

……

(o) Eleza matumizi ya ‘ki’ katika sentensi ifuatayo: (al.3)

Nyamunga na kitoto wamekuwa wakila, wakiimba kikasuku

……

……

……

(p) Changanua sentensi ifuatayo kwa kutumia mchoro wa matawi. (al.4)

Mtoto wa mjomba alikuja kwetu nyumbani jana

(q) Andika kwa msemo wa taarifa. (al.2)

‘Yafaa tumwendee mama mkubwa ili atushauri juu ya jambo hili,’ Amina alipendekeza.

……

…….....

(r) Andika kinyume cha: (al.1)

Chakula hiki kitamu nitakimeza

……

(s) Tunga sentensi ukitumia viwakilishi vifuatavyo. (al.2)

(i) Kiwakilishi nafsi huru

.....

(ii) Kiwakilishi nafsi kiambata

……

4. **ISIMUJAMII** **(alama10)**

(a)Tofautisha kati ya kuhamisha msimbo na kuchanganya msimbo.

(alama 2)

.....

.....

.....

.....

(b)Taja mambo mawili yanayochangia katika uhamishaji msimbo.

(alama 2)

.....

.....

.....

(c)Taja kaida mbili zinazotawala maamkizi katika jamii huku ukitoa mifano mwafaka.

(alama2)

.....

.....

.....

.....

(d) Fananisha sifa zozote nne za sajili ya maabadini na mahakamani. **(alama 4)**

.....

.....

.....

.....

.....

.....

.....

.....

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

102/3

KISWAHILI

FASIHI

Paper 3

TIME: 2 ½ HOURS

MAAGIZO

(a) Jibu maswali manne pekee.

(b) Swali la kwanza ni la lazima.

(c) Maswali mengine matatu yachaguliwe kutoka sehemu zilizosalia yaani.

(d) Usijibu maswali mawili kutoka sehemu moja.

(e) Kila swali lina alama ishirini (20)

(f) Majibu yaandikwe kwa lugha ya Kiswahili.

(g) Watahiniwa ni lazima wahakikishe kwamba kurasa zote za karatasi hii zimepigwa chapa sawasawa na kuwa maswali yote yamo.

SEHEMU YA A: TAMTHILIA

P.Kea:Kigogo

1. Lazima

(a)Jadili jinsi kumi ambazo maudhui ya ukatili yanajitokeza katika Tamthilia ya Kigogo **(alama 10)**

(b)Eleza mifano kumi ya matumizi ya kinaya katika Tamthilia ya Kigogo. **(alama 10)**

SEHEMU YA B

RIWAYA: CHOZI LA HERI

(Assumpta K. Matei)

Jibu swali la Pili au la Tatu

2. "Watu husema kuwa binadamu hawawi sawa ila kifoni…"

a) Eleza muktadha wa maneno haya. **(alalama 4)**

b) Tambua mbinu moja ya lugha iliyotumiwa katika dondoo hili. **(alama 2)**

c) Eleza sifa na umuhimu wa mzungumzaji wa maneno haya. **(alama 6)**

d) Thibitisha kuwa hakuna usawa baina ya wanadamu. **(alama 8)**

Au

3. Jadili nafasi ya sehemu zifuatazo katika riwaya ya Chozi la Hari:

(a) Hotuba **(alama 10)**

(b) Uozo katika jamii **(alama 10)**

SEHEMU C

HADITHI FUPI

(Mtihani wa maisha)

'Leo mwalimu mkuu atajua kwamba mdharao biu hubiuka'

(a)Eleza muktadha wa maneno haya. **(Alama 4)**

(b)Taja mbinu ya lugha iliyotumika katika mktadha huu. **(Alama 6)**

(c)Eleza wasifu wa mzungumzaji wa maneno haya. **(Alama 2)**

(d)Jadili maudhui ya elimu kama yanavyojitokeza katika hadithi hii. **(Alama 8)**

(Ndoto ya mashaka (Ali Abdulla)

FOR MARKING SCHEMES CONTACT *0746 222 000*

(5) 'Kusema kweli lakini hata mimi sikuwa na nadhari katika kumpenda msichana huyu …
Nilimpenda kufa! Lakini! Kwao bure tu!'

(a) Eleza mkutadha huu. **(Alama 4)**

(b)Taja mtindo wa lugha uliotumika katika mkutadha huu. **Alama 4**

(c) Taja sifa mbili za mzungumzaji. **(Alama 2)**

(d) Onyesha maudhui ya umaskini katika hadithi fupi ya Ndoto ya mashaka.

SEHEMU YA D USHAIRI

Jibu swali 6 au 7

(6) **USHAIRI**

Soma shairi lifuatalo kisha ujibu maswali

Daima alfajiri na mapema
Hunipitia na jembe na kotama
Katika njia iendayo kondeni
Kama walivyofanya babuze zamani;
Nimuonapo huwa anatabasamu
Kama mtu aliye na kubwa hamu
Kushika mpini na kutokwa jasho
Ili kujikimu kupata malisho.
Anapotembea anasikiliza
Videge vya anga vinavyotumbuiza
Utadhani huwa vimemngojea
Kwa usiku kucha kuja kumwimbia;
Pia pepo baridi kumpepea
Rihi ya maua zikimletea
Nao umande kumbusu miguu;
Ni miti yote hujipinda migongo
Kumpapasa, kumtoa matongo;
Na yeye kuendelea kwa furaha
Kuliko yeyote ninayemjua
Akichekelea ha ha ha ha ha ha ha …
Na mimi kubaki kujiuliza
Kuna siri gani inayomliwaza?
Au ni kujua au kutojua?
Furaha ya mtu ni furaha gani
Katika dunia inayomhini?
Ukali wa jua wamnyima zao
Soko la dunia lamkaba koo;
Dini za kudhani zamsonga roho
Ayalimia matumbo ya waroho;
Kuna jambo gani linamridhisha?

Kama si kujua ni kutokujua
Laiti angalijua, laiti angalijua!

(a)Eleza matatizo manne yanayompata mzungumziwa. **(Alama 4)**
(b)Eleza mtindo wa lugha uliotumiwa na mshairi na utoe mifano. **(Alama 8)**
(c)Taja nafsineni katika shairi hili. **(Alama 1)**
(d)Eleza toni ya shairi hili. **(Alama 1)**
(e)Taja mbinu mbili za uhuru wa kishairi uliotumika na utoe mifano. **(Alama 2)**
(f) Andika ubeti wa kwanza kwa lugha ya nathari. **(Alama 4)**

(7)*Soma shairi lifuatalo kisha ujibu maswali.*

Leo kitaka nifike, natamani, ila wauma mwili
Kwa kazi nihusike, samahani, unahiliki mwili
Napenda nihesabike, makundini, ila huwezi mwili
Vitisho pamwe kelele, ninavicha, kwa nafsi na mwili
Ila ugonjwa utimile, umechacha, na kuudhili mwili
Msikose simile, magalacha, si gurudumu mwili.
Vingekuwepop viraka, kuutia, ngeushuruti mwili
Kifundi kivipachika, kuingia, hata kuridhi mwili
Upya ukaungilika, kuvutia, roho na wake mwili.
Lakini kamwe haiwi, kuvipata, vipande vyake mwili
Sihofu kupata mawi, sitajua, kupigania mwili
Hata kufutwa sikawi, nitakita, kidete nao mwili.
Kazi ninaithamini, ni hakika, akilini na mwili
Ila kamwe siamini, kusagika, damu, jasho na mwili
Uwele hususani, kioneka, nguvu hitishi mwili.

(a)Liweke shairi hili katika bahari tatu. **(Alama 3)**
(b)Eleza dhamira ya mshairi. **(Alama 2)**
(c) Eleza muundo wa shairi hili. **(Alama 4)**
(d) Toa mifano ya uhuru wa kishairi uliotumika. **(Alama 4)**
(e)Eleza kwa kifupi maudhui matatu yanayojitokeza katika shairi hili. **(Alama 3)**
(f) Andika ubeti wa kwanza kwa lugha ya nathari. **(Alama 4)**

SEHEMU D
FASIHI SIMULIZI

A(i) Miviga ni nini? **(Alama 2)**
(ii) Eleza sifa nane za miviga. **(Alama 8)**
B (i) Ulumbi ni nini? **(Alama 2)**
(ii)Eleza sifa nane za ulumbi **(Alama 8)**

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

313/1

CHRISTIAN RELIGIOUS EDUCATION

PAPER 1

TIME: 2 ½ HOURS

Instructions To Candidates

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

2) *This paper consists of six questions.*

3) *Answer any **FIVE** questions in the answer sheet provided*

4) *Each Question carries 20 marks*

Questions No.	1	2	3	4	5	6	GRAND TOTAL
Marks							

QUESTIONS

1. (a) Give the moral importance of studying Christian Religious Education. **(6mks)**

(b) Describe the first account of creation as in 1:2:4. **(8mks)**

(c) Outline SIX ways in which Christians care for God's creation. **(6mks)**

2. a) Describe the covenant between God and Abraham.Gen15:1-19 **(8mks)**

b) Why is Abraham referred to as the father of faith? **(7mks)**

c) Give five ways in which Christians show their faith in God. **(5mks)**

3. (a)State reasons why Samuel was opposed to the establishment of kingship in Israel. **(5mks)**

(b) Explain FIVE reasons why David was considered the greatest King of Israel. **(10mks)**

(c) Give reasons why the political leaders in Kenya today has failed to perform their duties effectively. **(5mks)**

4. a) What were the characteristics of true prophets in the Old Testament? **(7mks)**

b) Give reasons why Amos proclaimed God's judgment on Israel and Judah? **(6mks)**

c) What lessons do Christians learn from Amos' teachings on judgment? **(7mks)**

5. a) Explain the final reforms carried out by Nehemiah **(5mks)**

b) Outline the content of Jeremiah's letter to the exiles in Babylon (Jer 29) **(8mks)**

c) Relate the teaching from Nehemiah's exemplary life to Christian life today **(7mks)**

6. a) Describe any four moral values acquired during initiation rituals **(8mks)**

b) What is the importance of kinship in traditional African society? **(7mks)**

c) How has the Kenyan government promoted African culture. **(5mks)**

FOR MARKING SCHEMES CONTACT *0746 222 000*

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

313/2

CHRISTIAN RELIGIOUS EDUCATION

PAPER 2

TIME: 2 ½ HOURS

Instructions To Candidates

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

2) *This paper consists of six questions.*

3) *Answer any **FIVE** questions in the answer sheet provided*

4) *Each Question carries 20 marks*

Questions No.	**1**	**2**	**3**	**4**	**5**	**6**	**GRAND TOTAL**
Marks							

QUESTIONS

1. (a) Explain the Jewish expectations concerning the messiah **(7mks)**

(b) State 7 similarities in the annunciation of the birth of John the Baptist and that of Jesus Christ. **(7mks)**

(c) Identify six lessons Christians learn from the annunciation of the birth of Jesus Christ **(6mks)**

2. (a) Give seven advantages of a monogamous marriage **(7mks)**

(b) Outline the importance of children in both Christianity and traditional African communities. **(6mks)**

(c) Identify ways through which Christians help to minimize conflicts between parents and their children in Kenya today **(7mks)**

3. (a) Outline Jesus teachings about the Kingdom of God. **(7mrks)**

(b) Narrate the parable of the sower Luke 8:4-15. **(8mrks)**

(c) State the challenges faced by new converts in the church today. **(5mrks)**

4. (a) Give the teachings of Jesus on the role of the Holy Spirit. **(7mrks)**

(b) Explain how the unity of believers is expressed in the image of the body of Christ. **1st Cor 12:12-31**. **(8mrks)**

(c) State **five** ways in which the gift of the Holy Spirit have been abused in the church today. **(5mrks)**

5. (a) Outline **six** prophecies of Jeremiah about the Messiah. (Jeremiah 23: 5 – 6)**(6 marks)**

(b)With reference to Luke 1:16 – 17, state the mission of John the Baptist from the message of angel Gabriel to Zachariah. **(8 marks)**

(c) State **six** lessons Christians learn from the role of John the Baptist? **(6 marks)**

6. (a) Explain seven sources of Christians Ethics. **(7marks)**

(b) Explain eight Christian values necessary for the creation of a just society. **(8marks)**

(c) State five reasons for sexual abuse in Kenya today. **(5marks)**

FOR MARKING SCHEMES CONTACT *0746 222 000*

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

311/1

HISTORY &GOVERNMENT

PAPER 1

TIME: 2 ½ HOURS

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

INSTRUCTIONS TO CANDIDATES.

(a)*This paper consists of three sections A, B and C.*

(b)*Answer all the questions in section A, three questions from section B and two questions from section C.*

(c)*This paper consists of 2 printed pages.*

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

(f)*Candidates must answer all the questions in English.*

SECTION A (25 MARKS)

Answer all questions in this section

1. Identify one main source of History and Government of the Kenyan communities during the pre-colonial period. **(1 mark)**

……

2. Identify two cultural practices introduced by the Cushites in Kenya. **(2 marks)**

……

……

……

3. Identify the title given to the war leader among the Luo community. **(1 mark)**

……

4. State one characteristic of a good constitution. **(1 mark)**

……

……

5. Which other name is used to refer to the Oromo? **(1 mark)**

……

6. State the two levels of government in Kenya today. **(2 marks)**

……

……

7. Identify one recommendation of Lyttleton constitution of 1954. **(1 mark)**

……

……

8. Highlight two functions of the governor during the British administration in Kenya. **(2marks)**

……

……

9. Give two demands of African Elected Members Organization (A.E.M.O). **(2 mark)**

……

……

10. Name two operation Forts established by the British to enhance political control in Central Kenya. **(2 marks)**

……

……

11. State two problems that the co-operative movement has faced in Kenya since independence **(2 marks)**

……

……

12. Identify two elements of the rule of law in Kenya **(2 marks)**

……

……

13. State two characteristics of human rights. **(2 marks)**

……

……

14. State two terms of the Heligoland treaty of 1890. **(2 marks)**

……

……

……

15. Give two values and principles of the public service according to the Kenya Constitution of 2010. **(2marks)**

……

……

……

16. Give one role played by the Public Service Commission in Kenya. **(1 mark)**

……

……

SECTION B (45 MARKS)

Answer any three questions.

17. (a) Name three Kalenjin speaking communities that remained in Mt. Elgon region during migration. **(3 marks)**

(b)Describe the social organization of the pre-colonial Somali community. **(12 marks)**

18. (a) State three factors that led to the decline of the coastal towns after 1500 AD. **(3 marks)**

(b) Explain six social impacts of the missionary activities in Kenya. **(12 marks)**

19. (a) Give five common challenges faced by both the railway builders and settlers in colonial Kenya. **(5 marks)**

(b) Explain five internal factors that led to the growth of Kenyan nationalist activities. **(10 marks)**

20. (a) Give three grievances of the white settlers that were presented to the Duke of Devonshire in London in 1923. **(3 marks)**

(b) Explain six positive effects of urbanization in Kenya during the colonial period. **(12 marks)**

SECTION C (30 MARKS)

Answer any two questions from this section.

21. a) State five non-violent methods of resolving conflicts. **(5marks)**

b) Explain five factors that promote national unity. **(10 marks)**

22. (a) Identify three ways that could be used to amend the constitution in Kenya. **(3 marks)**

(b) Explain the process of law making at the National level in Kenya. **(12 marks)**

23.a). State five functions of Kenya correctional facilities. **(5marks)**

b).Explain five factors that undermine the administration of justice in Kenya. **(10marks)**

FOR MARKING SCHEMES CONTACT *0746 222 000*

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

311/2

HISTORY &GOVERNMENT

PAPER 2

TIME: 2 ½ HOURS

INSTRUCTIONS TO CANDIDATES

- *This paper consists of **three** sections; **A, B** and **C.***
- *Answer ALL the questions in section **A, THREE** questions from section **B** and **TWO** questions from section **C.***
- *Answers to all the questions **MUST** be written on the answer sheets provided.*

FOR EXAMINER'S USE ONLY

	QUESTION	SCORE
SECTION A	1 - 17	
SECTION B	18	
	19	
	20	
	21	
SECTION C	22	
	23	
	24	
TOTAL SCORE		

SECTION A (25MARKS)

Answer all questions in this section

1. Name one of the periods of History **(1mk)**

……

2. Identify the hominid that is associated with the invention of fire **(1mk)**

……

3. Give two reasons that made Early human beings to live in groups during the stone age period **(2mks)**

……

……

4. State two theories that explain the origin and spread of agriculture **(2mks)**

……

……

5. Give two reasons why the camel is referred to as "the ship of the desert" **(2mks)**

……

……

6. What was the main item of trade from North Africa in the Trans-Saharan Trade **(1mk)**

……

7. Give two factors that enhanced the spread of iron working in Africa **(2mks)**

……

……

8. Give the main advantage of a cell phone **(2mks)**

……

……

9. Name two communities that did not take part in the MajiMaji uprising of 1905 – 1907 in Tanganyika **(2mks)**

……

……

10. Name the European power that colonized Zimbabwe **(1mk)**

……

11. Name two communes in Senegal where assimilation was successful **(2mks)**

……

……

12. Give the main reason for the convening of the Berlin conference of 1880-1884 **(1mk)**

……

13. Give the main function of international court of justice **(1mk)**

……

……

14. List two founders of Pan-Africanism **(2mks)**

……

……

15. Name any two weapons used during cold war **(2mks)**

……

……

16. Name the European power that was blamed for the outbreak of the first world war **(1mk)**

……

……

17. Name the international organization that took over from O.A.U **(1mk)**

……

……

SECTION B (45 MARKS)

Answer any three questions in this section

18. (a) Identify five ways in which Homo Erectus attempted to improve his way of life **(5mks)**

(b) Explain how the development of Early agriculture changed the lives of Early man **(10mks)**

19. (a) State five uses of iron during the pre-colonial period in Africa **(5mks)**

(b) Explain five challenges facing industrialization in Third World Countries **(10mks)**

20. (a) Outline five methods used by Europeans to acquire colonies in Africa **(5mks)**

(b) Explain five reasons for the failure of the Maji Maji uprising of 1905-1907 **(10mks)**

21. (a) Outline the duties of the Emirs in Northern Nigeria **(5mks)**

(b) Explain five roles of Kwame Nkrumah in the struggle for independence in Ghana **(10mks)**

SECTION C (30MKS)

Answer any two questions in this section

22. (a) State three European dictation responsible for second world war **(3mks)**

(b) Explain six political results of the second world war **(12mks)**

23. (a) State the three permanent members of the council of the league of nations **(3mks)**

(b) Explain six achievements of Economic Community of West African states (ECOWAS) **(12mks)**

24. (a) Identify three reasons why the Manchester Pan African congress of 1945 was unique. **(3mks)**

(b) Explain six reasons why Pan African Movement was not properly established in Africa by 1945. **(12mks)**

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

312/1

GEOGRAPHY

PAPER 1

TIME: 2 ¾ HOURS

INSTRUCTIONS TO CANDIDATES

- ✓ Answer all questions in section A.
- ✓ In section B, Answer question 6 and any other two questions from the remaining questions.
- ✓ Answer all questions using the answer booklet provided.
- ✓ Candidate should check that all pages are printed and no questions are missing.

FOR EXAMINATION USE ONLY.

	Maximum Score	Candidate Score
Section A.	25	
Question 6	25	
Question 7	25	
Question 8	25	
Question 9	25	
Question 10	25	
TOTAL	100%	

SECTION A

Answer all questions in this section

1. (a) What is geography? **(2marks)**

……

……

(b) Give three proofs that the earth is almost spherical in shape. **(3marks)**

……

……

……

……

……

2. (a) Differentiate between weathering and mass wasting. **(2 marks)**

……

……

……

……

(b) State three causes of landslides. **(3 marks)**

……

……

……

3. Describe the formation of planet earth according to the passing star theory. **(5 marks)**

……

……

……

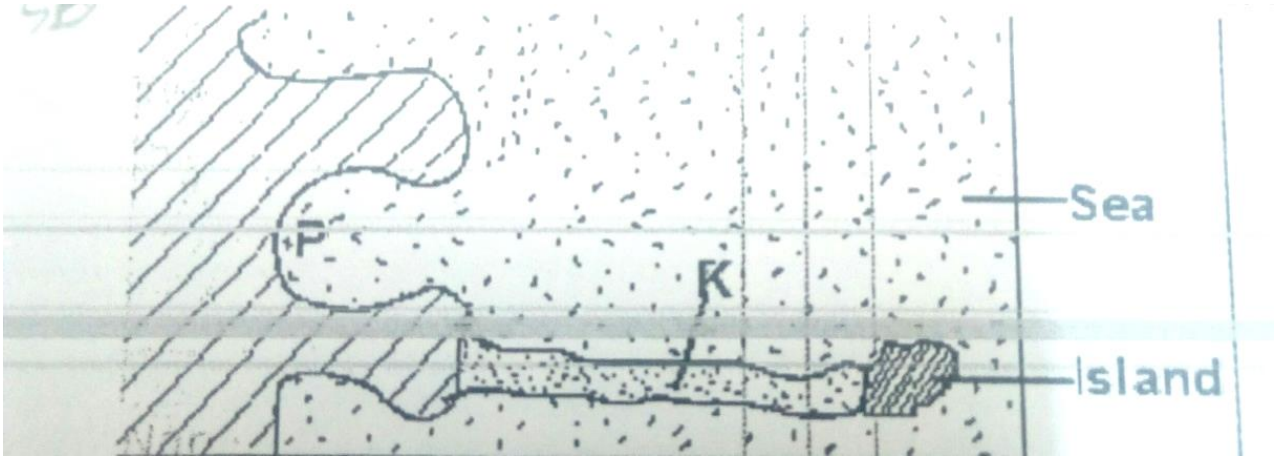
……

……

……

……

4. The diagram below shows a coastal landform.



(a) Name the features marked P and K. **(2marks)**

P……

K……

(b) List down three types of ocean tides. **(3marks)**

……

……

……

5. (a) Name the types of earth movements that occur within the earth's crust. **(2marks)**

……

……

(b) Describe the origin of continents according to the theory of continental drift. **(3marks)**

……

……

……

……

……

……

SECTION B

Answer question 6 and any other two questions in this section

6. Study the map of **Yimbo** (East Africa 1:50,000) to answer questions that follow.

(a) (i) what is the sheet title **(1 mark)**

(ii) Find the magnetic declination of the map in January 1965. **(2 marks)**

(b) (i) Find the distance in kilometers of loose surface road c506 from port southby through the junction to where it ends at Kerebi. **(2 marks)**

(ii) Find the area of Busia district (in kilometer square) to the northwestern part of the map. **(2 mks)**

(c) Draw a rectangle 9 cm by 10 cm to represent the area north of northing 90 and east of easting 30. On it mark and label

- River Yala
- Road c501/2
- Maranda school **(5 marks)**

(d) Describe the drainage of the area covered by the map **(5 marks)**

(e) Students of Maranda school wanted to do a field study on vegetation on the area covered by the map.

i. Identify two means of transport they are likely to use. **(2 marks)**

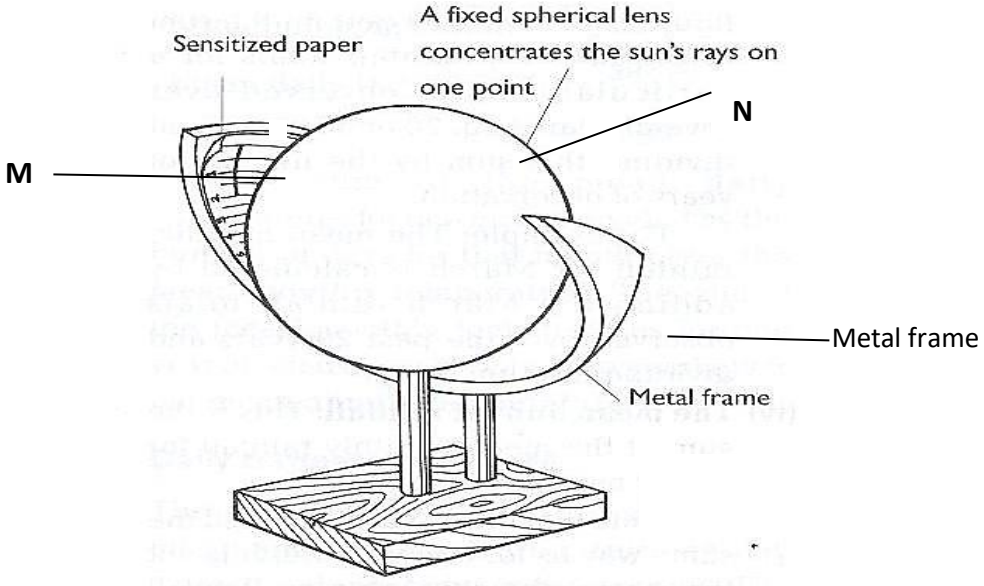
ii. Name three types of vegetation they are likely to identify **(3 marks)**

iii. State three preparations they could make. **(3 marks)**

iv. Identify two problems they are likely to encounter. **(2 marks)**

7. (a) Name two instruments kept in a Stevenson screen. **(2 marks)**

(b) The diagram below shows a weather measuring instrument. Use it to answer the questions below.



(i) Name the parts marked M and N. **(2 marks)**

(ii) Describe how the instrument works. **(4 marks)**

(c) The table below shows climatic figure for station Q. Use it to answer the questions that follow.

Months	J	F	M	A	M	J	J	A	S	O	N	D
Temp in ^{0}C	30	31	31	29	27	27	28	29	28	28	27	30
Rainfall in mm	257	246	231	234	207	201	218	227	234	240	235	230

(i) Calculate the annual range of temperature for station Q. **(2 marks)**

(ii) Give four characteristics of climate for station Q. **(4 marks)**

(d) With the aid of a well-labelled diagram, describe the formation of cyclonic rainfall**.(6 mks)**

(e) You intend to carry out a field study of a weather station in your school.

(i) Give two methods of recording data that you are likely to use. **(2 marks)**

(ii) State three reasons why the recording of data at a school weather station may be inaccurate.

(3 marks)

8. (a) Name three types of faults: **(3 marks)**

(b) (i) With the aid of well labeled diagrams explain how compressional forces can lead to the formation of a rift valley. **(7 marks)**

(ii) Give two examples of Horst Mountains in east Africa: **(2 marks)**

(c) Describe two ways in which faulting may influence drainage systems. **(4 marks)**

(d) A part from the Rift Valley name two other relief features that were formed as result of faulting. **(3 marks)**

(e) Explain three ways in which features resulting from faulting are of economic importance: **(6 marks)**

9. (a)(i) What is a lake? **(2marks)**

(ii) Name three ways through which lakes are formed. **(3marks)**

(iii) List three sources of Lake Water. **(3marks)**

(b) Describe how L. Victoria was formed. **(4marks)**

(c) Explain two reasons why some Lakes in the Rift Valley have fresh water. **(4marks)**

(d) State three economic significance of Lakes. **(3marks)**

(e) Students from your school intends to carry out a field study on Lakes.

(i) State two objective for their study. **(2marks)**

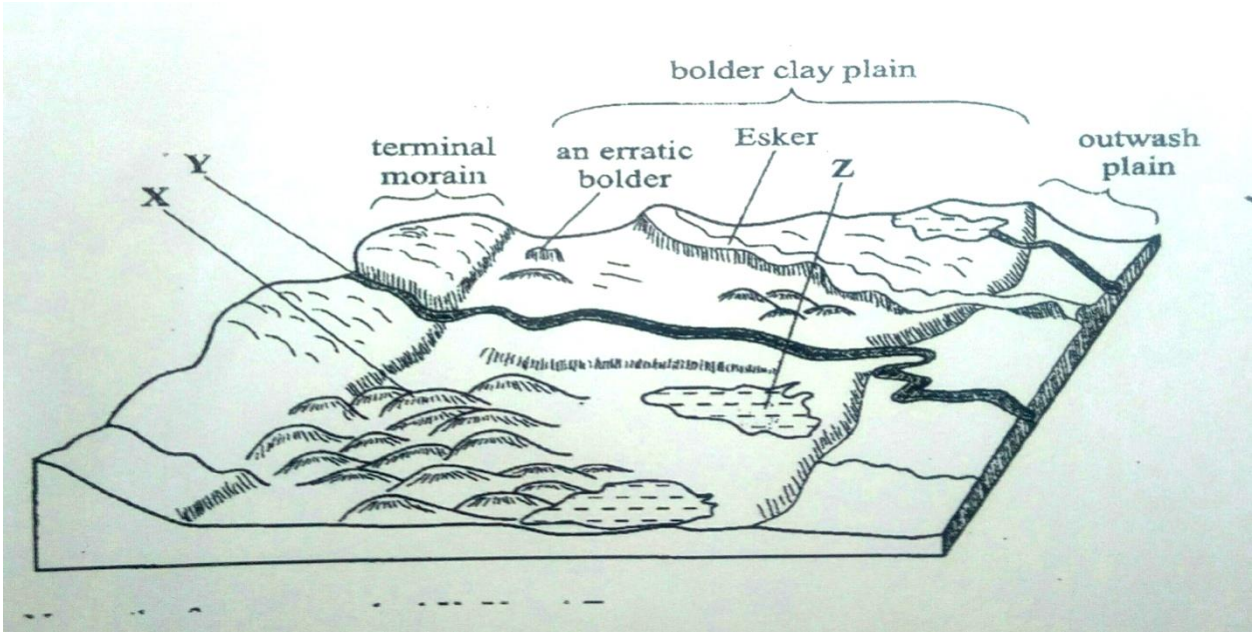
(ii) Identify two methods they will use to record the data collected. **2marks)**

(iii) Which human activity might they have found to be affecting the Lakes? **(2marks)**

10. (a) Describe plucking as a process in glacial erosion. **(4 marks)**

(b) Explain three conditions that lead to glacial deposition. **(6 marks)**

(c) The diagram below shows features resulting from glacial deposition in a lowland area.



(i) Name the features marked X, Y, and Z. **(3 marks)**

(ii) Describe how terminal moraine is formed. **(4 Marks)**

(d) Explain four positive effects of glaciation in low land area. **(8 marks)**

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

312/2

GEOGRAPHY

PAPER 2

TIME: 2 ¾ HOURS

INSTRUCTIONS TO CANDIDATES

- ✓ *Answer all questions in section A.*
- ✓ *In section B, Answer question 6 and any other two questions from the remaining questions.*
- ✓ *Answer all questions using the answer booklet provided.*
- ✓ *Candidate should check that all pages are printed and no questions are missing.*

FOR EXAMINATION USE ONLY.

	Maximum Score	Candidate Score
Section A.	25	
Question 6	25	
Question 7	25	
Question 8	25	
Question 9	25	
Question 10	25	
TOTAL	100%	

SECTION A

Answer all questions in this Section

1. State five reasons for studying Geography. **(5marks)**

2. (a) Name biological factors influencing agriculture. **(2marks)**

(b) State three uses of sugar in Kenya. **(3marks)**

3. a) Name three main mining methods. **(3marks)**

b) Name two places where Gold is mined in Tanzania. **(2marks)**

4. a) Outline three characteristics of coniferous forests. **(3marks)**

b) Identify two fibre crops found in the tropical forests. **(2marks)**

5. (a) Name two tourist attractions found in Kenya Rift valley. **(2 marks)**

(b) State three factors that hinder domestic tourism in Kenya **(3 marks)**

SECTION B

Answer question 6 and any other questions from this section.

6. The table below shows the prices of sugar in Kenya Shillings per ton in some countries in Africa.

Use it to answer question a.(i)

YEAR	KENYA	SOUTH AFRICA	TANZANIA	ZAMBIA
2014	95,400	61,927	68,702	84,447
2015	111,713	67,462	66,985	93,798
2016	110,878	65,173	90,649	86,832

(a) (i) Draw a divided rectangle 16cm long to represent the prices of sugar in the year 2016. **(8 marks)**

(ii) State two advantages of using compound bar graph to present statistical data**.** **(2 marks)**

(b) State three physical conditions that favours cocoa farming in Ghana. **(3 marks)**

(c)Describe stages involved in processing of cocoa from harvesting to marketing**.** **(8 marks)**

(d)Apart from making oil give four other uses of oil palm. **(4 marks)**

7. (a) (i) Distinguish between a forest and forestry. **(2 marks)**

(ii) Name two indigenous softwood trees species found in Western Region of Kenya.

(2marks)

(b)(i) State three characteristics of planted forests. **(3 marks)**

(ii) Name two forest reserves in Western region of Kenya. **(2 marks)**

c) (i) State four characteristics of temperate hardwood forests. **(4 marks)**

(ii) Explain three problems which have limited exploitation of tropical hardwood in Africa **(6marks)**

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

(i)Tree species **(2 marks)**

(ii)Mode of exploitation **(2 marks)**

(iii)Marketing of product **(2 marks)**

8. a) (i)Give three common methods through which land has been reclaimed in Kenya **(3 marks)**

ii) Give two methods that are used to drain swamps in Kenya. **(2 marks)**

b) (i)Name two rivers that supply water to the Mwea irrigation scheme **(2 marks)**

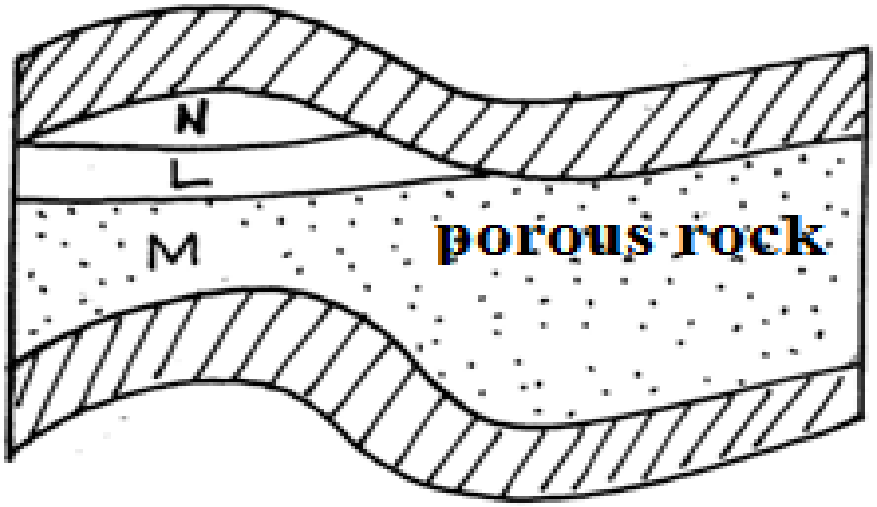
ii) Explain how the following factors influenced the establishment of Mwea irrigation scheme.

- Topography **(2 marks)**
- Soils **(2 marks)**
- Population **(2 marks)**
- Government policy **(2 marks**

c) i)Name three areas that make up the Zuider zee reclamation project in the Netherlands. **(3 marks)**

ii)Explain four differences between reclamation in Kenya and the Netherlands. **(8 marks)**

9. (a)The diagram below shows the occurance of petroleum in the earth's crust.Use it to answer question a i)



a) (i)Name the substance in the areas labelled L,M and N **(3marks)**

(ii)Give three by –products obtained when crude oil is refined **(3marks)**

(b)State five effects of mining on the environment **(5marks)**

(c) (i)Describe the stages involved in the processing of trona from lake Magadi. **(6marks)**

(ii)Explain four ways in which Kenya has benefited from the mining of trona on lake Maga*di* **(8marks)**

10. a) i) Name two types of fish reared in fish farms in Kenya. **(2marks)**

ii) State four efforts taken by the Kenyan government to improve fish farming. **(4marks)**

iii) Differentiate pelagic fishing from demersal fishing. **(2marks)**

b) Describe purse seining method of fishing. **(5marks)**

c) Compare fishing in Kenya and Japan under the following headings:

i) Nature of landscape **(2marks)**

ii) Market **(2marks)**

iii) Climate **(2marks)**

e) Explain the following problems of fishing in Kenya and suggest one possible solution for each.

i) Pollution. **(3marks)**

ii) Growth of weeds. **(3marks)**

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

121/1

MATHEMATICS

Paper 1

TIME: 2 ½ HOURS

INSTRUCTIONS TO THE CANDIDATES

- *This paper contains two sections;* ***Section*** *I and* ***Section II****.*
- *Answer all the questions in* ***section I*** *and only* ***five*** *questions from* ***Section II.***
- *All workings and answers must be written on the question paper in the spaces provided below each question.*
- *Non programmable silent electronic calculators and KNEC Mathematical tables may be used* ***EXCEP****T where stated otherwise.*
- *Show all the steps in your calculations, giving your answers at each stage in the spaces below each question.*

FOR EXAMINER'S USE ONLY

Section 1

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

Section 1I

Question	17	18	19	20	21	22	23	24	**Total**
Marks									

SECTION I (50MKS)

1. A rally car travelled for 2 hours 40 minutes at an average speed of 120km/h. the car consumes an average of 1 litre of fuel for every 4 kilometers. A litre of fuel costs Ksh.59. Calculate the amount of money spent on fuel. **(3mks)**

2. One interior angle of a polygon is equal to 80^0 and each of the other interior angles are 128°. Find the number of sides of the polygon. **(3mks)**

3. (a) Using a pair of compasses and a ruler only construct a triangle ABC and such that AB= 4cm, BC =6cm and angle ABC=135^o. **(2mks)**

(b) Construct the height of triangle ABC in (a) above taking AB as the base, hence Calculate the area of triangle ABC. **(2mks)**

4. Solve the following inequalities and state the integral values **(3mks)**

$2x - 2 \leq 3x + 1 < x + 11$

5. Without using mathematical tables or calculators, **evaluate** $\sqrt{\frac{1408 \times 0.594 \times 0.012}{6.05 \times 125}}$ leaving your answer as a simplified fraction **(3mks)**

6. Two similar solids have surface areas $48cm^2$ and $108cm^2$ respectively. Find the volume of the smaller solid if the bigger one has a volume of $162cm^3$. **(3mks)**

7. A triangle flower garden has an area of $28m^2$. Two of its edges are 14 metres and 8 metres. Find the angle between the two edges. **(3mks)**

8. A watch which looses a half a minute every hour.It was set read the correct time at 0445hr on Monday. Determine in twelve hour system the time the watch will show on Friday at 1845hr the same week. **(3mks)**

9. Simplify the expression: $\frac{9t^2-25a^2}{6t^2+19at+15a^2}$ **(3mks)**

10. Use reciprocal and cube root tables to evaluate **(3mks)**

$\frac{5}{63.34}-\sqrt[3]{0.0169}$

11. A Kenya company received US Dollars M. The money was converted into Kenya Shillings in a bank which buys and sells foreign currencies.

	Buying (in Ksh)	Selling (in (Ksh)
1 Sterling Pound	125.78	126.64
1 Us Dollar	75.66	75.86

(a) If the company received Ksh.15, 132,000, calculate the amount, M received in US Dollar. **(2mks)**

(b) The company exchanged the above Kenya shillings into Sterling pounds to buy a car in Britain. Calculate the cost of the car to the nearest Sterling pound **(2mks)**

12. A trader sold a dress for Ksh 7200 allowing a discount of 10% on the marked price. If the discount had not been allowed the trader would have made a profit of 25% on the sale of the suit. Calculate the price at which the trader bought the dress. **(3mks)**

13. Use logarithms tables to evaluate. **(4mks)**

$$\sqrt[3]{\frac{36.72\times(0.46)^2}{185.4}}$$

14. A certain two-digit number is equivalent to five times the sum of the digits. It is found to be 9 less than the number formed when the digits are interchanged. **Find** the number. **(3mks)**

15. A man standing 20m away from the foot of a vertical pole observes the top of the pole at an angle of elevation of 30^0. He begins to walk along a straight line on level ground towards the pole. **Calculate** how far he walked before the angle of elevation of the top of the pole becomes 80^0. **(3mks)**

16. Find the acute angle y if $\sin 4y = \cos 2y$ **(2mks)**

SECTION B (50MKS)

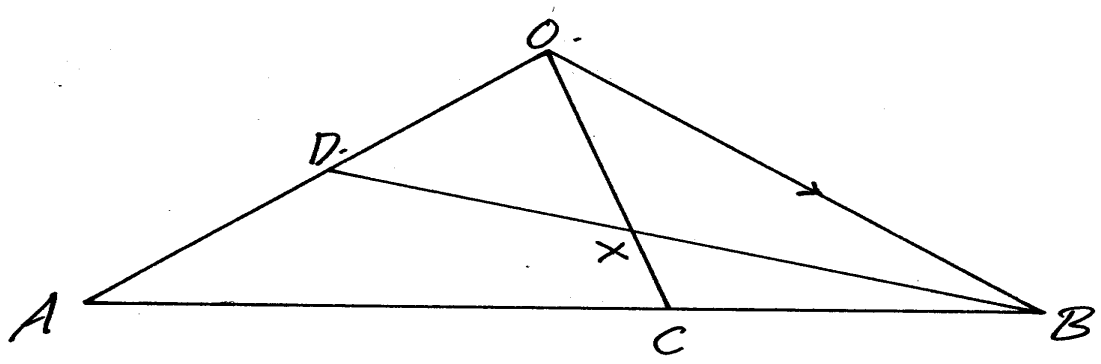
17. Mambo poured spirit into a test tube which has hemispherical bottom of inner radius 1.5cm. He noted that the spirit is 8cm high.

(a) What is the area of surface in contact with spirit? **(4mks)**

(b) Calculate volume of spirit in the test tube. **(4mks)**

(c) If Mambo obtained the mass of the spirit as 10g. Calculate the density of the spirit. **(2mks)**

18. The figure below C is a point on AB such that AC**:** CB=3:1 and D is the mid –point of OA. OC and BD intersect at X.



Given that **OA** = **a** and **OB** = **b**

(a) Write the vectors below in terms of **a** and **b**.

(i) **AB** **(1mk)**

(ii) **OC** **(2mks)**

(iii) **BD** **(1mk)**

(b) If **BX** = h **BD**, express **OX** in terms of **a**, **b**, and h. **(1mk)**

(c) If **OX** = K**OC**, find h and k. **(4mks)**

(d) Hence express **OX** in terms of **a** and **b** only. **(1mk)**

19. A straight line L_1 has a gradient $^{-}½$ and passes through point P (-1, 3). Another line L_2 passes through the points Q (1, -3) and R (4, 5). Find.

(a) The equation of L_1. **(2mks)**

(b) The gradient of L_2. **(1mk)**

(c) The equation of L_2. **(2mks)**

(d) The equation of a line passing through a point S (0, 5) and is perpendicular to L_2. **(3mks)**

(e) The equation of a line through R parallel to L_1. **(2mks)**

20. A certain number of people agreed to contribute to buy novels worth sh. 1200. Five of them pulled out and the others agreed to contribute an extra Sh. 10 each. Their contribution brought novels worth sh.200 more than they originally expected.

a) If the original number of people was x, write an expression of how much each was to contribute. **(1mk)**

b) Write down two expressions on how much each contributed after the five pulled out and reduced them to a single equation. **(2mks)**

c) Calculate how many people made the contribution **(5mks)**

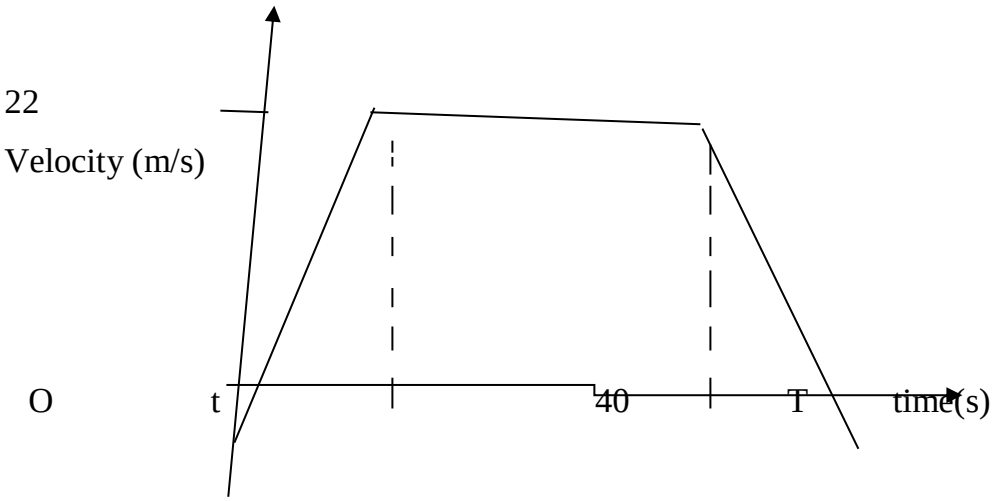
d) How much did each contribute? **(2mks)**

21. (a) In 2001 the total cost of manufacturing an article was Sh.1250 and this was divided between the cost of material, labour and transport in the ratio 8: 14: 3. In 2004 the cost of the material was doubled, labour cost increased by 30% and transport costs increased by 20%. Calculate the cost of manufacturing the article in 2004. **(6mks)**

(b) For the same article in (a) above, the cost of manufacturing in 2005 was sh. 1981 as a result of increase in labour costs only. Find the percentage increase in labour cost of 2004.

(4mks)

22. The figure below shows a velocity – time graph of a car journey.



The car starts from rest and accelerates at $2.75m/s^2$ for t seconds until its speed is 22m/s. It then travels at this velocity until 40 seconds after starting. Its breaks bring it uniformly to rest. The total journey is 847m long and takes T seconds.

Calculate the

(i) Value of t **(3mks)**

(ii) Distance travelled during the first t seconds **(2mks)**

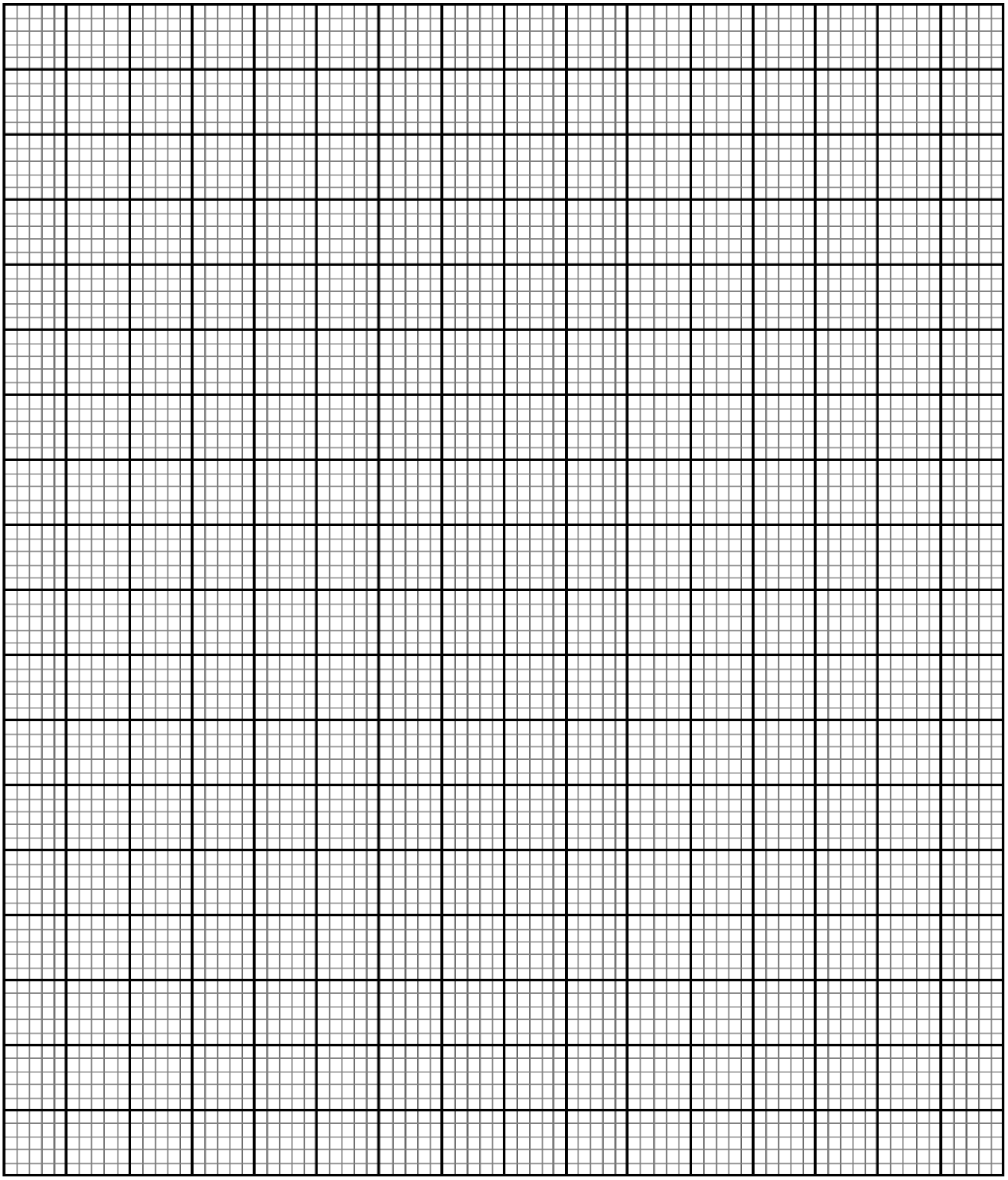
(iii) Value of T **(3mks)**

(iv) Final deceleration **(2mks)**

23. A triangle with A(-4, 2), B(-6, 6) and C(-6, 2) is enlarged by a scale factor -1 and centre **(-2, 6)**

to produce triangle $A^1B^1C^1$.

a) Draw triangle ABC and $A^1B^1C^1$.and state its coordinates **(4mks)**



b) Triangle $A^1B^1C^1$ is then reflected in the line y = x to give triangle $A^{11}B^{11}C^{11}$.draw $A^{11}B^{11}C^{11}$.and state its coordinates **3mks**

c) If triangle $A^{11}B^{11}C^{11}$ is mapped onto $A^{111}B^{111}C^{111}$ whose co-ordinates are $A^{111}(0, -2)$, $B^{111}(4, -4)$ and $C^{111}(0, -4)$ by a rotation. Find the centre and angle of rotation. **(3mks)**

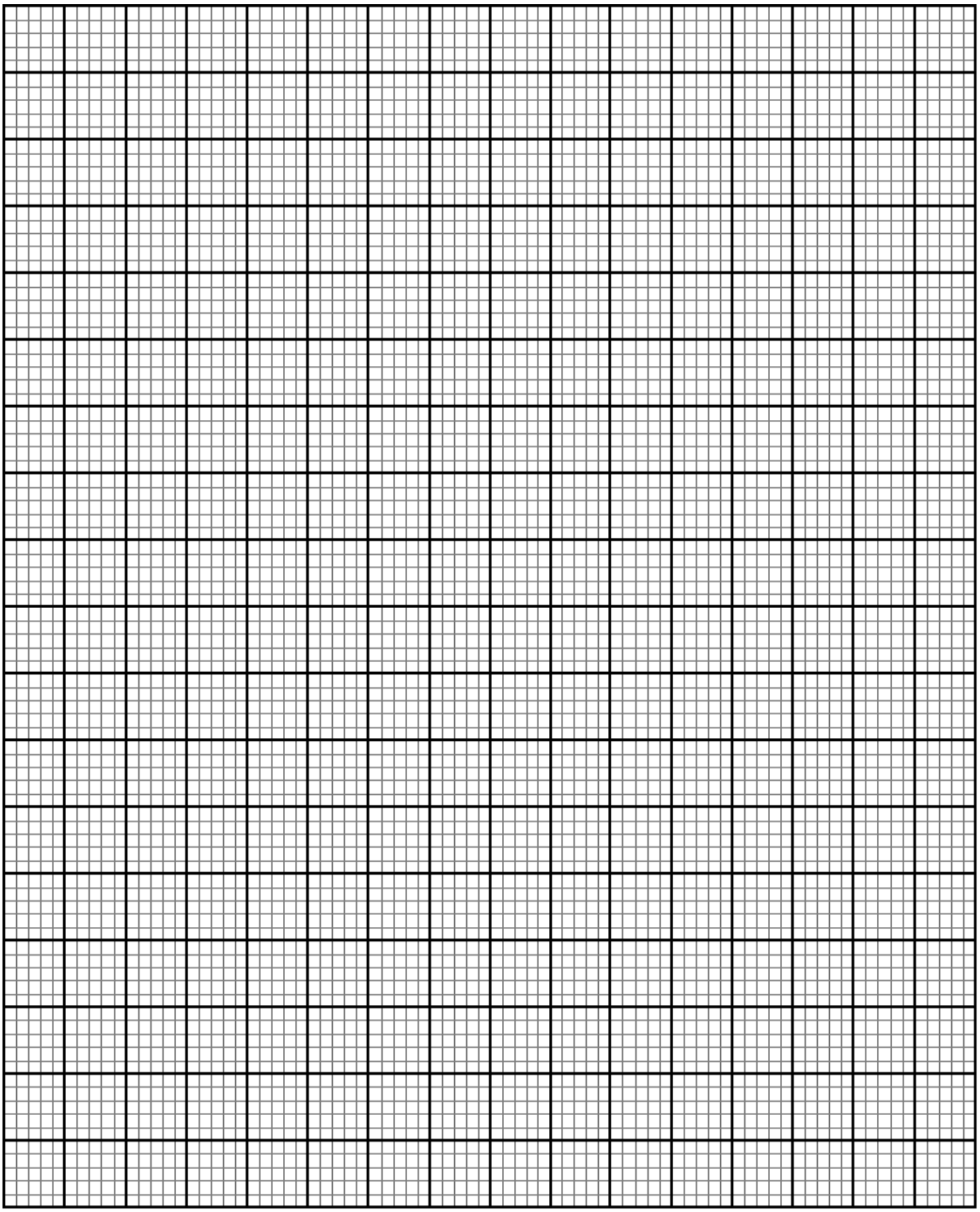
24. The following are masses of 25 people taken in a clinic.

20	35	29	45	60	
66	56	29	48	37	
	59	64	24	28	32
35	45	48	52	55	
54	55	36	39	35	

(a) Using a class width of 8 and starting with the lowest mass of the people. Make a frequency distribution table for the data. **(3mks)**

(b) Calculate the median mass of the people. **(3mks)**

(c) On the grid provided, draw a histogram to represent the information. **(4mks)**



LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

121/2

MATHEMATICS

Paper 2

TIME: 2 ½ HOURS

INSTRUCTIONS TO THE CANDIDATES

- *This paper contains two sections;* ***Section*** *I and* ***Section II****.*
- *Answer all the questions in* ***section I*** *and only* ***five*** *questions from* ***Section II.***
- *All workings and answers must be written on the question paper in the spaces provided below each question.*
- *Non programmable silent electronic calculators and KNEC Mathematical tables may be used* ***EXCEP****T where stated otherwise.*
- *Show all the steps in your calculations, giving your answers at each stage in the spaces below each question.*

FOR EXAMINER'S USE ONLY

Section 1

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

Section 1I

Question	17	18	19	20	21	22	23	24	**Total**
Marks									

SECTION I (50MKS)

1. Simplify by rationalising the denominator

$$\frac{\sqrt{2} + \sqrt{3}}{\sqrt{6} - \sqrt{3}}$$ **(3mks)**

2. Find the value of x in the equation $\log_{10}(2x-1) + \log_{10} 3 = \log_{10}(8x-1)$. **(3mks)**

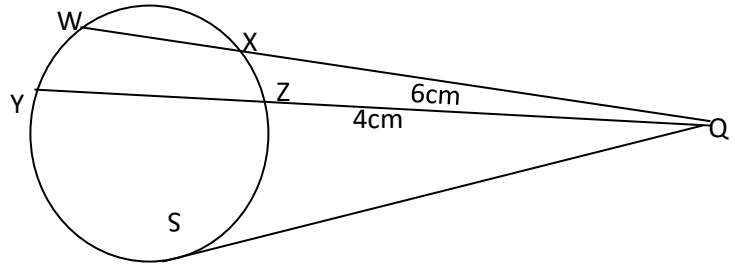
3. Find the compound interest on sh. 200,000 for 2 years at 14% pa. Compounded semi-annually. **(3mks)**

4. The ratio of 12^{th} to 10^{th} term in a geometric series is 9:1. Find the common ratio. **(3mks)**

5. i) Expand $(2 - \frac{1}{4}x)^5$ **(2mks)**

ii) Use your expansion to find the value of $(1.96)^5$ correct to 3 decimal places **(2mks)**

6. Chord WX and YZ intersect externally at Q. The secant WQ = 11cm and QX = 6cm while ZQ = 4cm.



(a) Calculate the length of chord YZ. **(2mks)**

(b) Using the answer in (a) above, find the length of the tangent SQ. **(2mks)**

7. Given that $\begin{bmatrix} y-1 & y+1 \\ 3y & y \end{bmatrix}$ is a singular matrix, find the possible values of y. **(3mks)**

8. The masses to the nearest kg of 50 adults were recorded as follows:

Mass (kg)	Frequency (f)
45 – 50	2
51 – 56	10
57 – 62	11
63 – 68	20
69 – 74	6
75 – 80	1

Calculate the quartile deviation. **(3mks)**

9. P varies as the cube of Q and inversely as the square root of R. If Q is increased by 20% and R decreased by 36%, find the percentage change in P. **(3mks)**

10. Solve $8\cos^2 x - 2\cos x - 1 = 0$ **(3mks)**

11. Make χ the subject of the formula:

$$A = \sqrt{\frac{3 + 2\chi}{5 - 4\chi}}$$ **(3mks)**

12. The position vectors of A and B are given as **a**= 2**i**-3**j**+4**k** and **b**= -2**i**-**j**+2**k** respectively. Find to 2decimal places, the length of the vector$\overrightarrow{AB}$. **(3mks)**

13. Find the centre and the radius of a circle whose equation is

$x^2-6x+y^2-10y+30=0$ **(3mks)**

14. A point (x, y) is mapped onto (13, 13) by two transformations M followed by T where

T = $\begin{pmatrix} -4 \\ 3 \end{pmatrix}$ and x = $\begin{pmatrix} 3 & 1 \\ 2 & 4 \end{pmatrix}$. Find the point (x y) **(3mks)**

15. Given that $2 \leq A \leq 4$ and $0.1 \leq B \leq 0.2$. Find the minimum value of $\frac{AB}{A-B}$

(3mks)

16. In a transformation, an object with area $9cm^2$ is mapped onto an image whose area is $54cm^2$. Given that the matrix of transformation is $\begin{bmatrix} x & x-1 \\ 2 & 4 \end{bmatrix}$ find the value of x **(3mks)**

SECTION II (50MKS)

17. The table below shows the rates of taxation in a certain year.

Income in K£ pa	Rate in Ksh per K£
1 – 3900	2
3901 – 7800	3
7801 – 11700	4
11701 – 15600	5
15601 – 19500	7
Above 19500	9

In that period, Juma was earning a basic salary of sh. 21,000 per month. In addition, he was entitled to a house allowance of sh. 9000 p.m. and a personal relief of ksh.105 p.m He also has an insurance scheme for which he pays a monthly premium of sh. 2000. He is entitled to a relief on premium at 15% of the premium paid.

(a) Calculate how much income tax Juma paid per month. **(7mks)**

(b) Juma's other deductions per month were cooperative society contributions of sh. 2000 and a loan repayment of sh. 2500. Calculate his net salary per month. **(3mks)**

18. Wainaina has two dairy farm A and B. Farm A produces milk with 3 ½ percent fat and farm B produces milk with 4 ¾ percent fat. Determine;

(a) The total mass of milk fat in 50kg of milk from farm A and 30kg from farm B. **(3mks)**

(b) The percentage of fat in a mixture of 50kg of milk from A and 30kg of milk from farm B. **(2mks)**

(c) Determine the range of values of mass of milk from farm B that must be used in a 50kg mixture so that the mixture may have at least 4 percent fat. **(5mks)**

19. A cupboard has 7 white cups and 5 brown ones all identical in size and shape. There was a blackout in the town and Mrs. Kamau had to select three cups, one after the other without replacing the previous one.

(a) Draw a tree diagram for the information. **(2mks)**

(b) Calculate the probability that she chooses.

(i) Two white cups and one brown cup. **(2mks)**

(ii) Two brown cups and one white cup. **(2mks)**

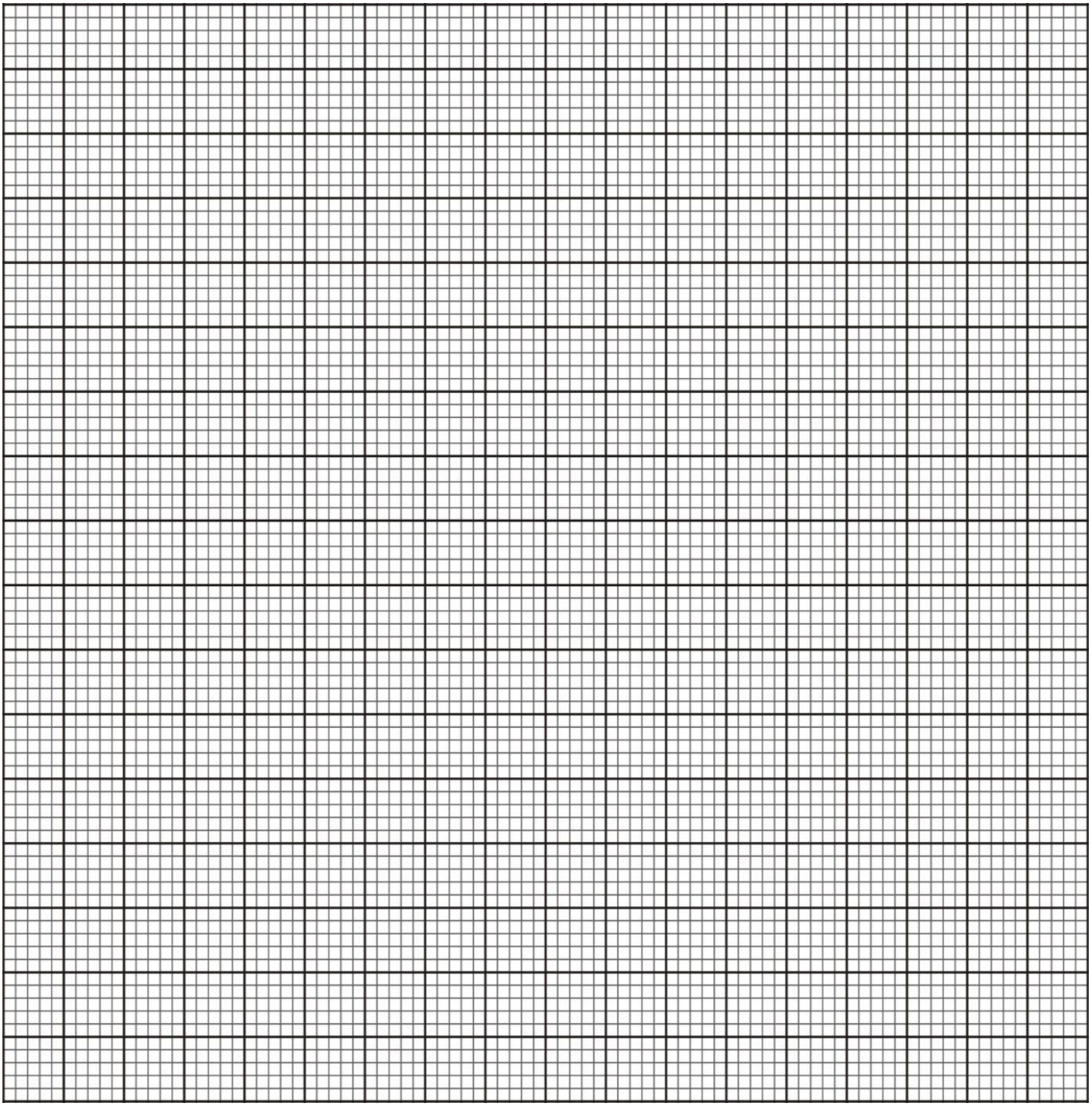
(iii) At least one white cup. **(2mks)**

(iv) Three cups of the same colour. **(2mks)**

20. (i) complete the table below, giving the values correct to 2 decimal places (2mks)

X^0	0^0	15^0	30^0	45^0	60^0	75^0	90^0	105^0	120^0	135^0	150^0	165^0	180^0
Cos $2X^0$	**1.00**	**0.87**		**0.00**	**-0.5**		**-1.00**		**-0.5**	**0.00**	**0.50**	**0.87**	**1.00**
Sin (X^0+30^0)	**0.50**	**0.71**	**0.87**	**0.97**	**1.00**		**0.87**	**0.71**	**0.50**		**0.00**		**-0.50**

(ii) Using the grid provided draw on the same axes the graph of $y=\cos 2X^0$ and $y=\sin(X^0+30^0)$ for $0^0 \leq X \leq 180^0$. (4mks)



(iii) Find the period of the curve $y=\cos 2x^0$ **(1mk)**

(iv) Using the graph, estimate the solutions to the equations;

(a) $\sin(X^0+30^0)=\cos 2X^0$ **(1mk)**

(b) $\cos 2X^0=0.5$ **(1mk)**

21. The For a sample of 100 bulbs, the time taken for each bulb to burn was recorded. The table below shows the result of the measurements.

Time(in hours	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74
Number of bulbs	6	10	9	5	7	11	15	13	8	7	5	4

(a) Using an assumed mean of 42, calculate

(i) the actual mean of distribution **(4mks)**

(ii) the standard deviation of the distribution **(3mks)**

(b) Calculate the quartile deviation **(3mks)**

22. (a) Using a ruler and a pair of compasses only, construct a parallelogram ABCD such that AB=9 cm, AD=7 cm and angle BAD=60^{o}. **(3mks)**

(b) On the same diagram, construct:

(i) The locus of a point P such that P is equidistant from AB and AD; **(1mk)**

(ii) The locus of a point Q such that Q is equidistant from B and C; **(1mk)**

(iii) The locus of a point T such that T is equidistant from AB and DC; **(1mk).**

(c) (i) Shade the region R bounded by the locus of P, the locus of Q and the locus of T. **(1mk)**

(ii) Find the area of the region shaded in (d)(i) above. **(3mks)**

23. The points A (1,4), B(-2,0) and C (4,-2) of a triangle are mapped onto $A^1(7,4)$, $B^1(x,y)$ and C^1 (10,16) by a transformation N = $\begin{pmatrix} a & b \\ c & d \end{pmatrix}$. Find

(i) Matrix N of the transformation **(4mks)**

(ii) Coordinates of B^1 **(2mks)**

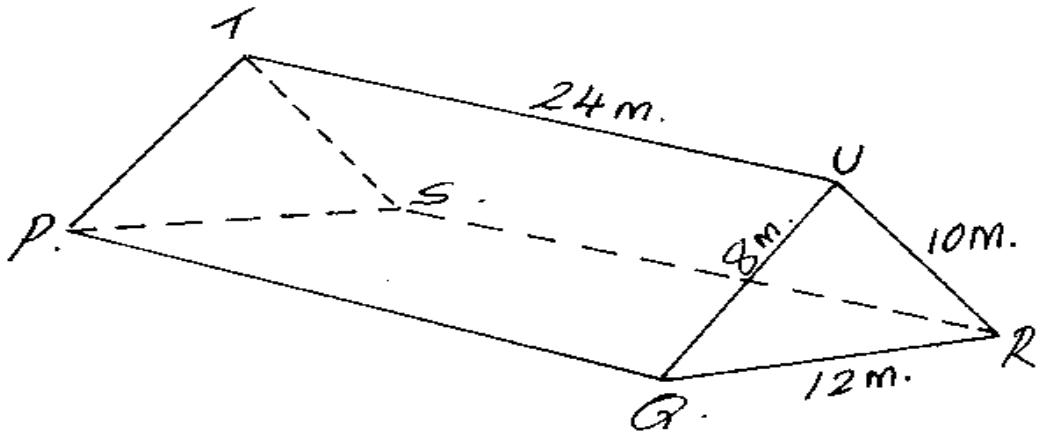
(iii) $A^{II}B^{II}C^{II}$ are the image of $A^1B^1C^1$ under transformation represented by matrix

M = $\begin{pmatrix} 2 & -1 \\ 0 & 0 \end{pmatrix}$ Write down the co-ordinates of $A^{II}B^{II}C^{II}$ **(2mks)**

(vi)A transformation N followed by M can be represented by a single transformation K.

Determine K **(2mks)**

24. The roof of a ware house is in the shape of a triangular prism as shown below



Calculate

(a) The angle between faces RSTU and PQRS **(3mks)**

(b) The space occupied by the roof **(3mks)**

(c) The angle between the plane QTR and PQRS **(4mks)**

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

451/ 1

COMPUTER STUDIES

PAPER 1

(THEORY)

TIME: 2½ HOURS

INSTRUCTIONS TO CANDIDATES:

- *Write your **name** and **Admission** number in the spaces provided above.*
- *This paper consists of **TWO** sections **A** and **B**.*
- *Answer **ALL** the questions in section **A.***
- *Answer question **16** and any other **THREE** questions from section **B**.*
- *All answer should be written in the spaces provided*
-

SECTION	QUESTIONS	CANDIDATE'S SCORE
A		
B	16	
	17	
	18	
	19	
	20	
TOTAL		

SECTION A (40 MKS)

Answer All the questions in this section in the spaces provided

1. Mention any TWO reasons why command-based operating systems are not common in today's business computer systems. **(2mks)**

……

……

……

2. (a) Name the type of scanner used to capture data from the following document format below **(1mk)**



……

(b) Mention any TWO features that are considered before buying a main memory module. **(2mks)**

……

……

……

3. Briefly describe how the following data security measures function **(3mks)**

a. ***Audit trail :*****……**

……

b. ***Log files:***

……

……

c. ***Fire walls :***

……

……

4. (a) Explain the following **(2 mks)**

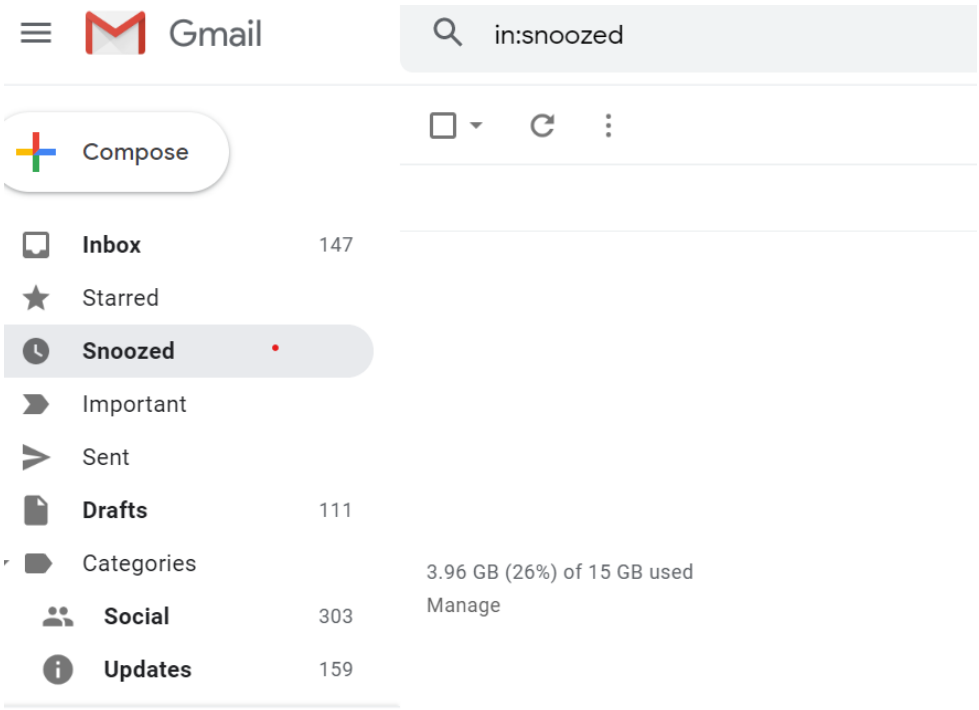
i. Search engine – **……**

……

ii. Web browser – ……

……..

(b) The diagram below shows an e-mail extract.



What is purpose of the following folders**?** **(2 mks)**

a) Inbox……

……

b) Drafts……

……

5. Describe two types of errors that may be detected during program testing **(2mks)**

……

……

……

6. Perform the following binary operation **(2 mks)**

11001 + 1101 – 1101

7. State two possible causes of fire outbreak in a computer laboratory. **(2mks)**

……

……

……

8. a) What do you understand by the term 'soft system' in a system development using an example? **(3mks)**

……

……

……

……

b) State **two** tools that a system analyst may use to design a system **(2 mks)**

……

……

……

c) List down any four characteristics of a system **(4 Mks)**

……

……

……

……

……

……

9. State three reasons why users may resist the introduction of information and communication Technology (ICT) to their place of work **(3mks)**

……

……

……

……

10. State **three** ways in which horticultural farmers can benefit from the use of information and communication technology (3 mks)

……

……

……

……

11. State four differences between an intranet and the internet **(2 mks)**

……

……

……

……

12. Differentiate between a **select** query and **action query** as used in databases. **(2 mks)**

……

……

……

……

13. The following is a spreadsheet was used by Mrs. Ngugi a farmer in Nakuru

	A	B	C
1	Crop	Amount	
2	Maize	150	
3	Bean	300	
4	Cashew nuts	850	
5	Cabbages	1036	

(i) A function = IF(B2<200,"Poor Yield", IF(B2>300, "Moderate", IF(B2>1000,"Great Yield"))).
Give the appropriate result returned in cells C2, C3, C4, and C5 **(2mks)**

……

……

……

……

14. A computer user may interact with a computer either through Graphical User Interface (GUI) or though typed commands

(a) Give one advantage of using GUI based operating system over a command line interface **(1 mk)**

……

……

(b) Some computer systems still use command line interfaces. State two advantages of command line interface **(2mks)**

……

……

……

……

15. (a) Distinguish between data verification and data validation as used in data processing **(2mks)**

……

……

……

……

(b) **List any two** file organization methods (1 mk)

……

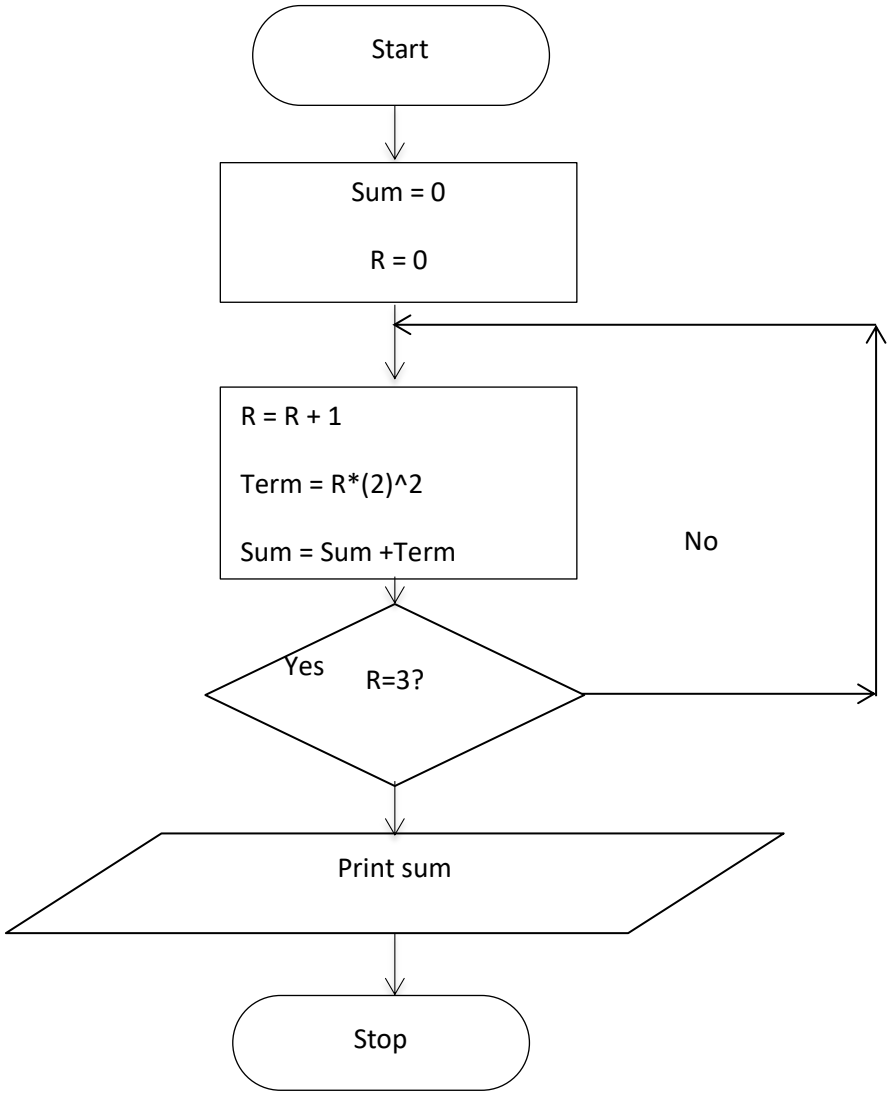
……

……

SECTION B (40 MKS)

Answer question 16 and any other THREE questions

16. a) Study the following flowchart and answer the questions that follow



i) Dry run the above flowchart clearly showing how the output will be arrived at **(4mks)**

ii) Convert the above flowchart into a pseudocode **(6mks)**

b) Explain three types of documentations that a programmer needs to prepare **(3mks)**

……

……

……

……

c) State two differences between a compiler and an interpreter **(2mks)**

……

……

……

……

17. a) Define data integrity **(1mk)**

……

……

b) Explain any four threats to data integrity in computer systems **(4mks)**

……

……

……

……

c) Giving examples differentiate between transposition and misreading errors **(3mks)**

……

……

……

……

d) The following records were extracted from two files contained in a students' database

File A

Registration Number	Student name	Gender	Address
3001	Tom Onyancha	M	4646 Kisii
3002	Amina Amima	F	4322 Garissa
3003	Jane Anita	F	2333 Nairobi
3004	Jack Kalweo	M	3822 Meru

File B

Registration Number	Fees Paid	Date of Payment
3001	12,090	04/01/2020
3002	11,000	06/02/2020
3003	12,000	07/01/2020
3004	15,000	08/01/2020

i) Which of the two files above represents a transaction file ? **(1mk)**

……

……

ii) Give reason for your answer in17 a) i) above **(2mks)**

……

……

……

……

iii) Name the other type of file represented above **(1mk)**

……

……

iv) Identify the most appropriate primary field from the above data **(1mk)**

……

……

e) Differentiate between multiprocessing and multitasking systems **(2mks)**

……

……

……

……

18. a) State three advantages of using a laptop over desktop computer **(3mks)**

……

……

……

……

b) Explain three ways computers would be made more friendly to people with physical disabilities like the blind and handicapped **(3mks)**

……

……

……

……

18 (c) I. Differentiate between system review and system maintenance. **(4 mks)**

……

……

……

……

II. Mention THREE characteristics of a good interface design **(3 mks)**

……

……

……

……

19. a. Rehema school electoral system clerk stores the results of elections in folders. The school has two streams (W and S) each in form one, form two, form three and form four. The student administrative structure is in three levels, school level, form level and class level. The school level student leadership positions comprise of the head boy, the head girl, dining hall captain, games captain and the library captain. The form level positions comprise form captains who are in charge of all the streams in their respective forms. The class level positions comprise of the class prefects who are in charge of their respective classes. A folder labeled 2020 is stored in a root directory C hold these information. Draw a tree directory to represent the information above. **(6 mks)**

b. What do you understand by the following terms as used in Operating Systems? **(4 mks)**

i) Deadlock……

……

ii) Interrupt……

……

c. i) Fill in the blank spaces with the most appropriate answers of the open systems interconnection (OSI) reference model layers. **(3mks)**

Layer no	Layer	Function
7	Application laye	User applications run here and generate request for data transmission or open received information
1		The data packets are finally transmitted via the network card through the transmission media in form of bits
4	Transport layer	
6		Adds formatting, display and encryption information to the data being sent.

ii) Differentiate between baseband and broadband transmissions. **(2 mks)**

……

……

……

20. a) i. List **THREE** possible threats to data in a network **(3 mks)**

……

……

……

……

ii. State **THREE** control measures that can be taken to mitigate the threats above **(3 mks)**

……

……

……

……

b) Explain **THREE** uses of information systems in an organization **(6 mks)**

……

……

……

……

……

……

……

……

c) Give **THREE** types of data that can be used to test a developed **system** **(3 mks)**

……

……

……

……

this is the last printed page

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

451/2

COMPUTER STUDIES

PAPER 2

PRACTICAL

TIME 2 ½ HOURS.

INSTRUCTIONS TO CANDIDATES

- *Type/Write your name and admission number at the top right hand corner of each printout.*
- ***Write your name and index number on the CD-R.***.
- *Answer all questions. They carry equal marks.*
- *All answers must be saved in your CD-R.*
- *Hand in all the **printout** and the **CD-R***

1. a) Type the following passage as it appears and save it as CFSK **(36 marks)**

Computer for Schools Kenya

Computers for Schools Kenya (CFSK), is a non-profit organization established in October 2002 with the vision of establishing an information-rich Kenyan society actively contributing to sustainable national development. CFSK seeks to empower youths and communities for life in a knowledge-based society by facilitating the development of ICT infrastructure and capacity.

CFSK believes in the power of education and that it is possible to teach, train, feed and ensure sustainable development for the nation through application of technology and the innovations it ensures.

The CFSK program thus creates a forum for community development that is led by community members and sustained by a multiplier effect

In the nine years of existence, CFSK has sourced over 45,000 personal computers that have been deployed in nearly 2,000 learning institutions. CFSK organizational and operational model has also been recognized as an exemplar, with ongoing efforts to replicate the same in other African countries. CFSK won the 2007 and 2008 African ICT Achievers Award in the category of top civil society organization to bridge the digital divide in Africa.

he annual awards for leadership in ICT in Africa were handed out in November 2007 and 2008 at a televised gala in Johannesburg, South Africa

During this period of time, we have also carried out training for over 12,000 heads of schools and Education Officers, teachers/tutors, and members of Schools' Boards of Governors and Parents/Teachers Associations. We have successfully developed digital multimedia teaching/ learning resources specifically intended for our national secondary school curriculum – providing both teachers and students with an invaluable modern tool that makes learning interesting and stimulating. We have also developed software tools for school administration and management.

The incorporation of e learning into the CFSK curriculum will be prime in increasing its capacity in encouraging sustainable practices to growing the curriculum in ICT even to rural Schools thus cutting out a new niche in the Information Technology Sector.

Website

http://www.cfsk.org

Year established

2002

Partnership types

- Doing business with the poor (1029)
- Project funding (4182)
- Provision of goods (1707)
- Get inspired
- Q & A
- Standards / guidelines / toolkits
- Country / territory
- Global issues
- Business sectors
- Yellow pages
- Stories
- CSR / Sustainable development
- Fair trade
- Social entrepreneurship
- Partnering options
- Requests
- Offers
- News
- Disasters

b) Apply 1.5 line spacing to the entire document **(3marks)**

c) Spell check the document to remove all the errors **2 marks)**

d) Page number the document as follows

i) Page number position: Bottom centre **(2 marks)**

ii) Number format: Capital roman numbers **(2 marks)**

e) Apply justify alignment to the entire document **(2 marks)**

f) Save the document as CFSK1 **(2 marks)**

h) Print the documents CSFK, and CSFK1 **(1 mark)**

2. The following table shows Kipevu Cargo Handlers Company annual collection of containers from different storage yards, on behalf of Kenya Ports Authority, in Mombasa. Assuming you are working for the company as a data analyst, study it and answer the questions that follow.

a) Using a Spreadsheet package, enter the above data exactly as it appears into a workbook and save it as CARGO DETAILS. Rename the worksheet as KIPEVU CARGO **(15mks)**

b) Calculate the Transport cost for each Transporter **(2mks)**

c) Each Transporter is awarded Royalty Bonus of Kshs 80 per Container. Type the value 80 in cell B15 then use it in a function to calculate each Transporter's Royalties **(2mks)**

d) Copy the data above in Sheet 2 and Rename it as **Transporter Payment** **(2mks)**

e) Each transporter is given a Gross pay depending on the zone they are working in as follows:

Zone	Gross pay (Kshs)
A	45,000
B	55,000
C	60,000

(i) Add the following data in the Transporter Payment sheet **(5mks)**

(ii) Each Transporter gets a 10% deduction from their gross pay. Use a formula to compute deductions for each Transporter **(2mks)**

(iii) Given that Net pay = Gross pay + Bonus - Deductions, use a formula to compute the Net pay for each Transporter **(2mks)**

f) Rank the Transporters is descending order of the Net pay **(4mks)**

g) Use Subtotals function to compute Total Net pay for each zone **(6mks)**

h) Use a pie chart to represent the Subtotals above as percentages of the Grand Net pay **(6mks)**

i) Print the following: **(4mks)**

i) The chart

ii) Kipevu Cargo sheet

iii) Transporter Payment Sheet

iv) All the formulas/functions used

KIPEVU CARGO HANDLERS									
ZONE	TRANSPORT NUMBER	TRANSPORT NAME	CONTAINERS DELIVERED	TRANSPORT AMOUNT PER CONTAINER (KSHS)	TOTAL TRANSPORT COST PER TRANSPORTER	TOTAL ROYALTY BONUS PER TRANSPORTER	DEDUCTIONS	GROSS PAY	NET PAY
A	142	William Ole Tumbo	123	2000					
B	143	Justus Boyen	870	2500					
B	144	Mary Mutua	1130	2500					
B	145	Benjamin Seth	982	2500					
A	146	Nelly Onyango	679	2000					
C	147	Hamisi Timu	560	3000					
A	148	Mike Rudisha	786	2000					
C	149	Faith Wanjala	598	3000					
A	150	Tim Bwire	740	2000					
C	151	Newton Mageto	944	3000					

FOR MARKING SCHEMES CONTACT *0746 222 000*

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

501/1

FRENCH

PAPER 1

(Listening Comprehension, Dictation & Composition)

TIME: 2 Hrs

Instructions to the candidates:

a. This paper consists of three sections.
b. Ensure that all the three sections are clearly indicated.
*c. This paper consists of **8** printed pages.*
*d. All your answers **must** be in French.*
e. Answer all the questions in sections I and II.
*f. In section III indicate the question that you will have selected e.g question **8a** or question **8b.***

For Examiner's Use Only

SECTION	MAXIMUM SCORE	CANDIDATE'S SCORE
I	15	
II	05	
III	15	
TOTAL SCORE	**35**	

SECTION 1 (15mks)

LISTENING COMPREHENSION

Write answers to Questions 1-6 in the spaces provided.

1. (a) Il s'agit d'une émission de télévision pour des

…….(½)

(b) On parle de combien d'émissions ?

…….(½)

(c) A quelle heure peut-on suivre l'émission de la condition féminine ?

…….(½)

(d) Michel Kamara est connu pour ses

…….(½)

2. (a) Dans cette annonce on parle de la compétition de …… qui est ouverte (½)

(b) Qu'est-ce qu'on doit donner avant le 30 novembre ?

……. (½)

(c) Pour avoir plus d'informations, il faut aller à

……..(½)

3. (a) Où est-ce qu'on fait cette annonce ?

…… (½) (b) Elle s'adresse aux …… (½)

(c) Selon l'annonce, on recevra …….(½) pour avoir dépensé ……...

……. euros. (½)

4. (a) Qu'est-ce que Mathilde fête ?

……. (½)

(b) Combien de personnes y aura-t-il pour sa fête ?

……. (½)

(c) Que faisait Nathalie quand Mathilde a appelé ?

……. ……(½)

(d) Nathalie n'a pas pu rejoindre Mathilde au téléphone parce que la ligne

……... (½)

(e) Donnez 2 détails sur le cousin de Nathalie

(i) …… (½)

(ii) …… ..(½)

5. (a) Où se trouve Francine ?

…… (½)

(b) (i) Quel moyen de transport utilisera-t-elle ?

……(½)

(ii) Avec qui ? ……(½)

(c) A quelle heure arrive-t-elle ?

…… (½)

6. (a) Où se passe la visite ?

……(½)

(b) Le /La guide s'appelle

……(½)

(c) Il y a …….. étages dans la nouvelle section. (½)

(d) (i) Le café se trouve au …… étage. (½)

(ii) On peut y acheter …….. (½)

(e) (i) On peut acheter …… au magasin du musée. (½)

(ii) Ce magasin est …… la sortie. (½)

SECTION II (DICTATION) (5mks)

7. Listen to the instructions before you start writing.

……

……

……

……

……

……

……

……

……

……

……

SECTON III (COMPOSITION) (15mks)

Imaginative writing

In this section choose ONLY one question.

In 150 -180 words, write a composition in French beginning with:

EITHER

Beginning as follows :

8. (a) Il faisait froid ce soir-là …

OR

Ending as follows :

(b) . ……Je n'oublierai jamais ce soir-là.

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

501/2

FRENCH

PAPER 2

(Reading Comprehension, Grammar and Functional Writing)

Instructions to candidates.

a. Write your name, school, class and admission number in the spaces provided above.

*b. This paper has **three** sections: **I, II, and III.***

*c. Answer **ALL** the questions in the spaces provided.*

d. This paper consists 8 of printed pages.

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

f. Candidates should answer the questions in French.

For Examiner's Use Only

SECTION	MAXIMUM SCORE	CANDIDATE'S SCORE
I	15	
II	15	
III	10	
TOTAL SCORE	**40**	

SECTION I

(Reading Comprehension 15 marks)

Read the passages below and answer the questions that follow each passage.

1. PASSAGE 1

L'école publique est gratuite.

Elle est obligatoire de 6 à 16 ans.

Le système français est très centralisé avec des examens sous contrôle du ministère de l'Éducation nationale.

Le but de l'école est de donner une bonne culture générale.

Les lycéens peuvent apprendre jusqu'à trois langues étrangères, mais la plupart d'entre eux n'en étudient que deux.

Le baccalauréat est un examen passe par la majorité des jeunes.

Cet examen permet d'entrer à l'université.

QUESTIONS

1. Combien est-ce qu'on paie à l'école publique ?.....1pt
2. Quel examen vous donne la permission d'entrer à l'université ? ……1pt
3. Du texte, donnez un autre nom qui signifie « élèves »……..1pt

2. PASSAGE 2

JOURNÉE NOIRE

Aujourd'hui ce n'était pas mon jour !..En sortant de chez moi, je suis tombée sur la voisine du dessous qui m'a agressée à cause du bruit de la fête d'hier soir.

Dans la rue, à un passage piétons, un chien m'a mordue et son maitre m'a insultée, tout ça parce que j'avais marché sur la patte de l'animal !mais ce n'est pas fini…En allant au travail, dans le métro, un jeune m'a bousculée et en a profité pour me voler mon portable. Je suis allée au commissariat le plus proche pour faire une déclaration de vol, et là on m'a ignorée pendant une demi-heure avant de me rediriger vers une autre poste de police.

QUESTIONS

1. Pourquoi était-elle agressée par sa voisine ?.....1pt
2. Par quel moyen est-elle allée au travail ?.....1pt
3. Est-ce qu'elle avait été aidée au commissariat ?.....1pt

3. PASSAGE 3

249 Euros

Hôtel Paradis 4 étoiles ,1 semaine

Départs de toute la France du 26 septembre au 14 octobre

Hôtel de luxe situé au cœur de la palmeraie, à 15 minutes du centre-ville

Courts de tennis, terrain de golf, piscine, spa avec salle de fitness, soirées dansantes et folkloriques.

Visites guidées, circuits dans le désert.

QUESTIONS

1. Quand passera le départ ?.....1pt

2. D'après ce texte, auquel sport pouvez-vous participer dans l'eau ?.....1pt

3. Combien coûte cette réservation ?.....1pt

4. PASSAGE 4

Un réveil pour se lever

Une serviette pour se laver

Une chemise pour s'habiller

Un bol pour déjeuner

Des chaussures pour se promener

Un manteau pour se chauffer

Un bonnet pour se cacher

Mon cartable est prêt

Mes devoirs sont faits

Où est-ce que je vais ?

A l'école, pour enseigner

Questions

1. Qui parle ?.....1pt
2. Mentionnez deux habits dans le poème……..1pt
3. Où va cette personne ?.....1pt

5. PASSAGE 5

Je vais souvent à l'opéra, j'aime beaucoup les spectacles de danse contemporaine et bien sur les opéras .Comme je prends toujours une place à Galleria c'est assez loin, bien sur je ne vois pas très bien la scène, les expressions des artistes sont invisibles, mais je me laisse charmer par la musique et l'ambiance du lieu. Je ne regrette jamais mon choix.

Questions

1. Où se trouve l'opéra ?……1pt
2. Pourquoi je ne vois pas bien ?.....1pt
3. Est -ce que j'ai des regrets ?.....1pt

SECTION II

Grammar (15 marks)

6. Rewrite the sentences below as guided, making appropriate changes. Avoid unnecessary repetitions.

1. As-tu regardé ces films fantastiques ?

Oui, je…….. 1pt

2. Les ivoiriens parlent le français.

Le français ……..1pt

3. Hier quand je suis sorti de la banque, j'ai vu un fou.

C'est en……1pt

4. 'Nous sommes les invités de l'ambassade' Les touristes ont dit.

   Ils ont dit…… 1pt

5. Pierre prend des médicaments ?

   Oui, il…….1pt

6. Les élèves font du bruit dans la salle à manger ?

   Non,……..1pt

7. Les voleurs, ont-ils volé quelque chose ?

   Non,……1pt

8. Enfant : Je voudrais rendre visite à ma tantine Mathilde.

   Papa : Bien sûr, il faut……1pt

7. Complete the text below by filling each blank space with ONE appropriate word. (4 marks)

Je viens (i)……..prendre un boulot et je ne suis pas (ii)……diplômé. Vous savez, (iii)……France, la situation économique est (iv)……favorable que personne n'est au chômage De temps en (v)……..on voit dans les journaux, les appels (vi)…….poser des candidatures aux postes variés.

Tant (vii)…….pour moi, j'aurai mon diplôme (vii)……six mois.

8. Match the sentences in column A with those in Column B (3 points)

Il vend des fleures	Coiffeur
Il s'occupe des cheveux	Maître
On va chez lui quand on est malade	Femme d'affaire
Elle a beaucoup de magasins	Avocats
Ils représentent les criminels	Médecin

Il enseigne à l'école	Fleuriste
	Epicier
	Homme d'affaire

ANSWERS

1	2	3	4	5	6

SECTION III

Composition (10 marks)

9. Write your composition in the spaces provided. Indicate clearly whether your choice is 9(a) or 9 (b)

In 120 to 150 words, write in French on:

Either

a).Votre camarade de classe est allé en Belgique pour les vacances, écrivez lui une lettre en lui demandant de son séjour là-bas.

Or

b) Vous aimeriez avoir plus d'argent de poche, écrivez une lettre à votre père en donnant les raisons pour votre demande.

……

……

……

……

……

……

……

FOR MARKING SCHEMES CONTACT *0746 222 000*

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

HOMESCIENCE

PAPER 1

(THEORY)

TIME: 2 ½ HRS

SECTION A (40 MARKS)

Answer all questions in the spaces provided

1. What is a dessert? Give one example **(1mk)**

……

……

2. Identify **two** types of vacuum cleaners. **(1mk)**

……

……

3. Mention **two** types of electronic money transfer used to pay for goods and services. **(1mk)**

……

……

4. State **two** symptoms of a person suffering from scurvy **(2mks)**

……

……

……

5. List **four** types of fabrics that are drip dried during laundry. (**2mks)**

……

……

6. Suggest **two** points to bear in mind when attaching buttons. **(2mks)**

……

……

7. State **two** advantages of owning a home. **(2mks)**

……

……

8. Mention **two** importance of melanin in the body. **(2mks)**

……

……

9. Give **two** reasons why lampshades are popular. **(2mks)**

……

……

10. What is the meaning of haberdashery **(1mk)**

……

……

11. Outline **four** ways of preventing cholera outbreak **(2mks)**

……

……

12. Identify **two** practices necessary for successful steaming in cookery **(2mks)**

……

……

……

13. What is the role of a 'U/S' bend in concealed drainage system **(1mk)**

……

……

14. Highlight **two** dangers of excess weight gain during pregnancy **(2mks)**

……

……

15. Identify **four** fabrics that should not be wrung. **(2mks)**

……

……

……

16. List **four** fastenings suitable for a toddlers garment. **(2mks)**

……

……

……

17. Highlight **two** benefits of studying home science to the community. **(2mks)**

……

……

……

……

18. State **two** reasons for blanching vegetables. **(2mks)**

……

……

……

19. Give **two** example of builders added to detergents during manufacture. (1mk)

……

……

……

20. State **four** advantages of regular cleaning of household items.

(2mks)

……

……

……

……

……

21. Distinguish between raglan and kimono sleeve. **(1mk)**

……

……

……

22. State **two** characteristics of incomplete or second class proteins. **(1mk)**

……

……

……

23. Identify **two** immunizable diseases caused by viruses. **(1mk)**

……

……

……

24. Identify **two** situations when a lactating mother produces little or no milk at all. **(1mk)**

……

……

……

25. Name **two** areas in the house where light fixtures can be found. **(1mk)**

……

……

26. Define the following in relation to weaning. **(1mk)**

(a) Basic mix

……

……

(b) Multi mix

……

……

SECTION B

COMPUSORY

27. Your sister has invited you to a stay with her over the holiday and she has an eight months old baby.

Write down the procedure of carrying out the following activities at her home.

a) Prepare a cot for her baby **(10mks)**

b) Clean her baby's plastic feeding bottle. **(5mks)**

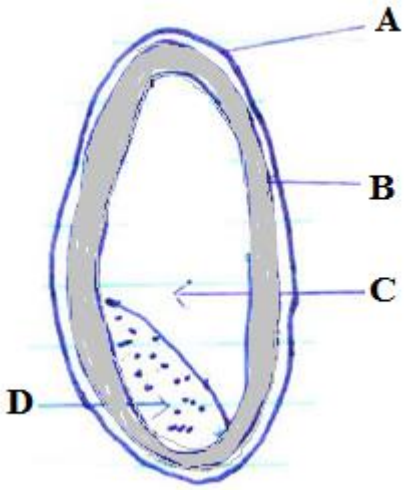
c) Thoroughly clean her calabash that she uses to serve porridge. **(5mks)**

SECTION C (40 MARKS)

Answer any two questions from this section in the spaces provided

28. a) Explain 6 dangers of land pollution to mankind **(6 marks)**

b) The diagram below shows a longitudinal section of a wheat grain



i) Label parts A,B,C,D **(4 marks)**

ii) Name two nutrients found in part A and two found in part D **(4 marks)**

c) Outline 6 advantages of proper ventilation in a house **(6 marks)**

29. (a) Name 4 agencies that protect consumers and their functions **(4marks)**

(b) Outline 4 preparations that one needs to carry out on a sewing machine in readiness for stitching **(4marks)**

(c) Explain 3 nutritional needs of the elderly **(6marks)**

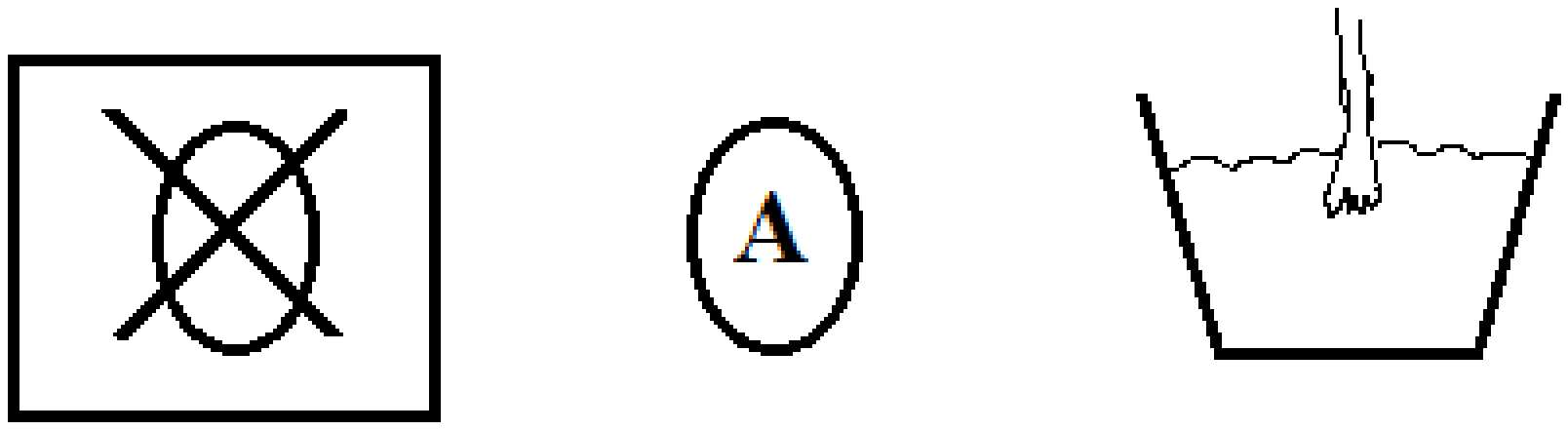
(d) Describe 3 factors to consider when choosing a seam in garment construction **(6marks)**

30. (a) Explain three factors you would consider when choosing flowers for a flower arrangement **(6marks)**

(b) Outline four practices to safeguard against occurrence of food spoilage and poisoning in the home **(4marks)**

(c) Describe 4 qualities of well made gathers **(4marks)**

(d) (i) Interpret the following care label symbols **(3marks)**



(ii) Explain three things to show the importance of advertisements to consumers **(3marks)**

………

………

………

………

………

………

………

………

………

………

………

………

………

………

………

………

………

………

………

………

………

………

………

………………………………………………………………………………………………………

………………………………………………………………………………………………………

FOR MARKING SCHEMES CONTACT *0746 222 000*

441/2

HOME SCIENCE

(CLOTHING CONSTRUCTION)

PAPER 2

441/2

HOME SCIENCE

CLOTHING AND CONSTRUCTION

PAPER 2

CONFIDENTIAL

1. Plain light weight cotton fabric 50 cm by 90 cm wide.
2. Sewing thread to match the colour of the fabric.
3. One large A4 envelope

FOR MARKING SCHEMES CONTACT *0746 222 000*

LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

441/2

HOME SCIENCE

CLOTHING CONSTRUCTION

Paper 2

Time: 2 ½ hours

A pattern of a girl's blouse is provided. You are advised to study the sketch, the question and the layout before the test.

MATERIALS PROVIDED

1. Pattern pieces

A - BLOUSE FRONT

B - BLOUSE BACK

C - FRONT YOKE

D - FRONT FRILL

E - BACK FRILL

F - BACK NECK FACING

2. Plain light weight cotton fabric 50 cm by 90 cm wide.
3. Sewing thread to match the colour of the fabric.
4. One large envelope.

THE TEST

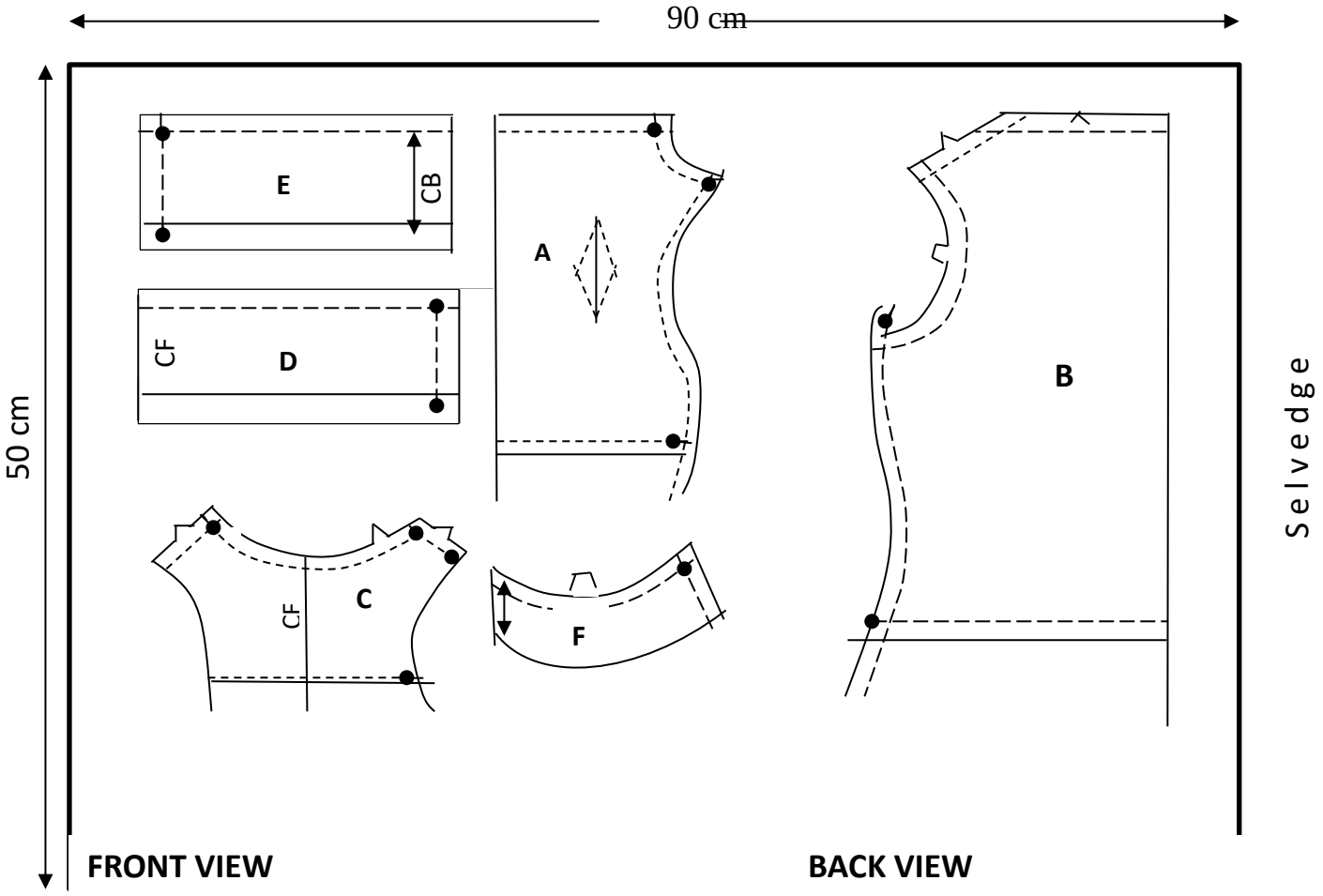
Using the materials provided, cut out and make up the **RIGHT HALF** of the child's blouse to show the following.

1. Cutting out. **(13 marks)**
2. The making of the double pointed dart. **(5 ½ marks)**
3. Making of the shoulder seam using double stitched seam. **(7 ½ marks)**
4. Joining the back facing to front facing and neatening the free edge. **(8 marks)**
5. Neatening the neckline using the joined facings. **(4 marks)**
6. Joining the front yoke to the blouse front using overlaid seam. **(11 marks)**
7. Working the side seam using an open seam. **(6 marks)**
8. Preparation of the frill to include:
   (a) Joining the back and front frill using a French seam. **(7 marks)**
   (b) Control of fullness. **(3 marks)**
   (c) Attachment of the frill to the lower part of the blouse using a plain seam. ***(Do not trim; Do not neaten)*** **(7 marks)**
9. Working of buttonhole using hand-worked stitches. **(6 marks)**
10. Management of the hem and holding it using long and short tacking. **(6 marks)**
11. Presentation. **(6 marks)**

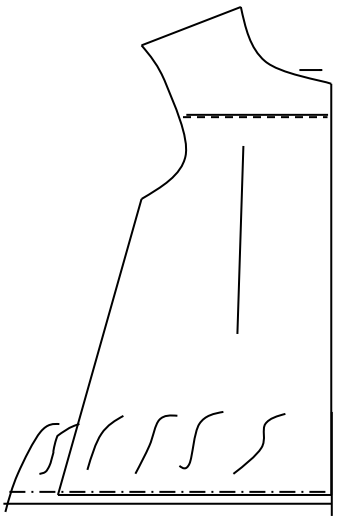
NOTE:

At the end of the examination, firmly sew on a single fabric a label bearing your name and index number, Remove the needles and pins from your work then fold your work neatly and place it in the envelope provided. Do not put scraps of fabric with your work.

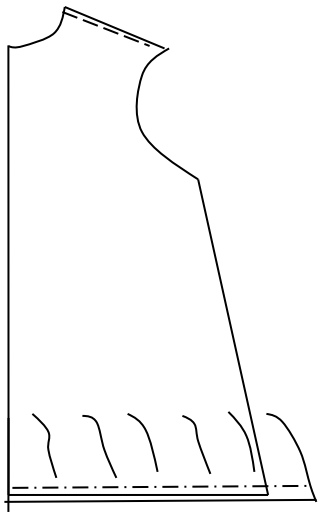
LAYOUT – NOT DRAWN TO SCALE



FRONT VIEW



BACK VIEW



LANJET JOINT MOCK

SERIES 001

NAME…….

SCHOOL…….. INDEX NO…….

SIGN……...

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

HOMESCIENCE

PAPER 3

FOODS AND NUTRITION (PRACTICAL)

1 ¾ HOURS

INSTRUCTION TO THE CANDIDATES

PLANNING SESSION: 30 MIN

PRACTICAL TEST SESSION: 1 ¼ HOURS

(a) Text books and recipe may be used during the planning session as reference materials.

(b) You will be expected to keep to your order of work during the practical session.

(c) You are only allowed to take away your reference materials at the end of the planning session.

(d) You are not allowed to bring additional notes to the practical session.

(e) Previously written plans are not allowed into the examination room.

(f) Candidates should answer the question in English.

FOR MARKING SCHEMES CONTACT *0746 222 000*

TEST

Using the ingredients listed below, prepare, cook and present a two course meal for you and your elder sister who is coming home from college over the weekend.

INGREDIENTS

- Fat/ oil
- minced meat/beef/chicken
- Salt
- Onion
- pineapple
- Wheat flour/ Irish potatoes/Rice
- Tomatoes
- Coriander
- lemon
- Spice of your choice
- Milk
- melon
- Capsicum
- Sugar
- Ripe bananas
- cabbage

PLANNING SESSION – 30 MINUTES

Use separate sheets of paper for each task below and carbon paper to produce duplicate copies. Then proceed as follows

1. Identify the dishes and write down their recipes.
2. Write down your order of work.
3. Make a list of the food stuffs and equipment you will require.

FOR MARKING SCHEMES CONTACT *0746 222 000*

FOR MARKING SCHEMES

CONTACT

0746 222 000

mwalimuagency@gmail.com

Mr Isaboke-Mwalimu Agency.

TO ALL KCSE CANDIDATES