## FORM 3 END OF TERM 3 EXAMS



Transparency, Honesty and Accountability Defined

# FORM 3 END OF TERM 3 EXAMS

Prefer Calling Sir Obiero Amos @

0706 851 439 for the Marking Scheme

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

by Amobi Soft Copy Publishers.

### ACTED SET BOOKS VIDEOS.

Details Inscribed in each. Delivered Via Telegram. WhatsApp/Sms/Call Sir Obiero Amos

0706 851 439





NAME:	•••••
ADM. NO: CLASS:	•••••
AGRICULTURE PAPER 1	
END YEAR EXAM FORM THREE	
<u>INSTRUCTIONS:</u> Answer ALL Questions in section A, B and any TWO Questions i	n section C.
SECTION A: (30 MARKS)	
1. State four characteristics of large scale farming system.	` '
•••••••••••••••••••••••••••••••••••••••	•••••
•••••••••••••••••••••••••••••••••••••••	•••••
•••••••••••••••••••••••••••••••••••••••	•••••
•••••••••••••••••••••••••••••••••••••••	•••••
	•••••
2. Outline four factors that can make shifting cultivation practical	ole. (2mks)
•••••••••••••••••••••••••••••••••••••••	•••••
••••••	•••••
••••••	•••••
	•••••
•••••	•••••
3. State two effects of high temperature on crop production.	(1mk)
•••••••••••••••••••••••••••••••••••••••	•••••
•••••••••••••••••••••••••••••••••••••••	•••••
	•••••
4. State two effects of sub-soiling in land preparation.	(1mk)

•••••	••••••••••••••••••••••••••••••••••••	••••••
•••••		•••••
5.	Differentiate between soil texture and soil structure.	
	•••••••••••••••••••••••••••••••••••••••	
	•••••••••••••••••••••••••••••••••••••••	
	•••••••••••••••••••••••••••••••••••••••	
•••••	•••••••••••••••••••••••••••••••••••••••	••••••••
	State two reasons why green manure is not commonly used larmers.	(1mk)
•••••		
•••••	•••••••••••••••••••••••••••••••••••••••	
	Enumerate four types of farm records kept by farmers.	(2mks)
•••••	•••••••••••••••••••••••••••••••••••••••	•••••••
•••••	•••••••••••••••••••••••••••••••••••••••	••••••
•••••	•••••••••••••••••••••••••••••••••••••••	••••••
•••••		••••••
•••••		• • • • • • • • • • • • • • • • • • • •
8.	Outline two importance of a title deed in land tenure system.	(1mk)
		•••••••
•••••	••••••••••••••••••••••••••••••••	••••••••
•••••	•••••••••••••••••••••••••••••••	• • • • • • • • • • • • • • • • • • • •

9.	State	reasons why it is difficult to control the following weeds. (4mks)	
		Oxalis –	
••••	•	Couch grass –	•••
•••••	• • • • • • • • • •	••••••	•••
••••	•	Black jack –	•••
•••••			•••
•••••	•	Nut grass –	•••
•••••			•••
•••••		••••••	•••
10	•	What is the meaning of the following terms as used in pest contribution Economic injury level – (1m	
			•••
•••••			•••
	ii)	Integrated pest management – (1m	ık)
•••••			•••

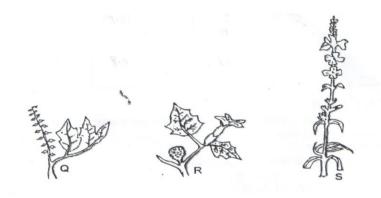
•••••		• • • • • • • • • • • • • • • • • • • •
•••••	••••••••••••••••••••••••••••••	•••••
11.	State two varieties of beans growth in Kenya.	(2mks)
	••••••	
12. grass	List two advantages of a grass-legume pasture over pur s pasture.	re stand (1mk)
	•••••••••••••••••••••••••••••••••••••••	
13.	Why is too much air undesirable in silage making?	(1mk)
14.		(2mk)
••••••	•••••••••••••••••••••••••••••••	•••••••
•••••	••••••••••••••••••••••••••••••	•••••••
•••••	••••••	••••••
•••••		•••••

15.	Outline two methods of breaking seed dormancy.	(1mk)
•••••		•••••
•••••		•••••
•••••		••••••
	List two demerits of using seeds as planting materials.	` '
•••••		•••••
	Give two importance of raising seedlings in polythene sleempared to direct establishment on the ground.	eeves (1mk)
•••••		•••••
-	(a) State three post harvesting practices carried out in croduction.	3mks)
•••••		•••••
•••••		•••••
(b) Li	st two limitations of using a traditional granary in crop stora	
•••••		•••••

#### **SECTION B: (20MARKS)**

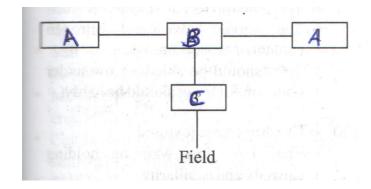
#### Answer ALL Questions in this section.

19. Below are diagrams of common weeds found in the farm. Use them to answer questions that follow.



••••••	
••••••	
•••••	
ii) Mention one harmful effect of weed Q and R.	(1mk)
•••••	
••••••	
iii) Give a reason why weed S is referred to as a	parasitic weed. (1mk)

20. The diagram below is an illustration of turning a certain type of manure. Use it to answer questions that follow.



	a)			the type of manure that is turned using the above method.	
	••••				
		b)	By us	se of arrows, show how the manure is turned.	(1mk)
		c)		is the significance of adding the following during the preparence:	aratior
•••	• • • • •	••••	i)	Adding well rotten manure.	(1mk)
•••	• • • • •				
			ii)	Adding garden soil.	(1mk)
			iii)	Adding ash.	(1mk)
• • • •					

21. Below are representations of certain pests that attack crops. Use them to answer questions that follow.



 •	Identify pests P and Q.	(2mks)
ii)	State two effects of pest Q in crop production.	(2mks)
iii)	Highlight three methods of controlling pest P.	(3mks)
iv)	At what stage do pest P attack crops?	(1mk)

#### **SECTION C: (40 MARKS)**

#### Answer any TWO Questions.

22.	(a) Explain five effects of soil erosion.	(10mks)
(b	Explain five methods used to control crop diseases.	(10mks)
23.	Describe production of maize under the following:	
	a) Ecological requirements.	(3mks)
	b) Seed bed preparation.	(4mks)
	c) Planting.	(5mks)
	d) Field management practices.	(5mks)
	e) Harvesting.	(3mks)
	c) Harvesting.	(OIIIIO)

- 24. (a) Describe ten (10) nursery management practices that are carried out after seed germination. (10mks)
  - (b) Explain five factors to be considered when designing a crop rotational programme. (10mks)

	NAME:				
	ADM. NO: CLASS:				
	END YEAR EXAM AGRICULTURE PAPER 2 FORM 3				
A	INSTRUCTIONS: Answer ALL Questions in section A, B and any TWO Questions in section C.				
	SECTION A: (30 MARKS)				
	1. List two biotic factors that affect livestock production in Kenya. (1mk)				
	•••••••••••••••••••••••••••••••••••••••				
	•••••••••••••••••••••••••••••••••••••••				
2.	Outline four reasons that enable camels to live in arid areas. (2mks)				
	•••••••••••••••••••••••••••••••••••••••				
	•••••••••••••••••••••••••••••••••••••••				
	•••••••••••••••••••••••••••••••••••••••				
	3. State four reasons for dehorning in livestock. (2mks)				
	•••••••••••••••••••••••••••••••••••••••				
4.	State four advantages of using a spray race over a plunge dip. (2mks)				
	•••••••••••••••••••••••••••••••••••••••				

•••••		• • • • • • • • • • • • • • • • • • • •
•••••	•••••••••••••••••••••••••••••••••••••••	• • • • • • • • • • • • • • • • • • • •
5.	State four reasons for seasoning timber.	(2mks)
•••••		• • • • • • • • • • • • • • • • • • • •
•••••		••••••
•••••		• • • • • • • • • • • • • • • • • • • •
•••••		• • • • • • • • • • • • • • • • • • • •
6.	State two types of bees.	(2mks)
•••••	•••••••••••••••••••••••••••••••••••••••	••••••
•••••	•••••••••••••••••••••••••••••••••••••••	•••••
7.	State four reasons for swarming of bees.	(2mks)
•••••	•••••••••••••••••••••••••••••••••••••••	
•••••	•••••••••••••••••••••••••••••••••••••••	••••••
•••••	••••••••••••••••••••••••••••••••••••	• • • • • • • • • • • • • • • • • • • •
8.	Define the term caponization as used in livestock production	, ,
•••••		
•••••	•••••••••••••••••••••••••••••••••••	••••••
9.	Outline four uses of water in animals on the farm.	(2mks)
•••••		• • • • • • • • • • • • • • • • • • • •

		••••••
		•••••
		•••••
		••••••
	10. Differentiate between steaming up and creep feeding.	(2mks)
		•••••
11.	State four routes through which pathogens enter the body of an ani	imal. (2mks)
	•••••••••••••••••••••••••••••••••••••••	
	•••••••••••••••••••••••••••••••••••••••	
	•••••••••••••••••••••••••••••••••••••••	
	•••••••••••••••••••••••••••••••••••••••	
		(2mks)
		•••••
		••••••
	•••••••••••••••••••••••••••••••••••••••	
	•••••••••••••••••••••••••••••••••••••••	
	13. State four advantages of Zero grazing unit in livestock produc	ction. (2mks)
		•••••

•••••		•••••
•••••		•••••
	•••••••••••••••••••••••••••••••••••••••	
•••••	•••••••••••••••••••••••••••••••••••••••	•••••
14.	Name the equipment used alongside each of the following:	(2mks)
i)	Trocar –	
	•••••••••••••••••••••••••••••••••••••••	
	Bull ring –	
•••••	<u> </u>	•••••
•••••		•••••
,	Elastrator –	
	•••••••••••••••••••••••••••••••••••••••	
iv)	Syringe –	
•••••		•••••
•••••		•••••
15.	State four reasons that show that a sow is about to furrow.	(2mks)
•••••		•••••
•••••		•••••
•••••	•••••••••••••••••••••••••••••••••••••••	•••••
•••••		•••••

16.	_	systems of breeding in livestock production. (2mks)
•••••		
•••••	••••••••••••	
SEC?	TION B: (20 MAR	<u>KS)</u>
Ansv	ver ALL questions	in this section.
_	hter decided to us n below Fish meal 50% D	
_	Cereal meal mixt	ure 12% DCP
(a) 90kg	How much of the bag?	two feedstuffs will Mr. Gatimu's daughter mix to get a (4mks)
(b)	The diagram belo	w illustrates a type of a digestive system.
		i)Name parts marked D and E (2mks)
	The state of the s	D
	D E	E

ii)State two functions of part F.	(2mks)
•••••••••••••••••••••••••••••••••••••••	••••••
•••••••••••••••••••••••••••••••••••••••	•••••
18. The diagram below shows a cross-section through a fis and answer questions that follow.	sh pond. Study it
a) Name parts A, B and C.	(1 ½ mks)
•••••••••••••••••••••••••••••••••••••••	••••••
•••••••••••••••••••••••••••••••••••••••	•••••
•••••••••••••••••••••••••••••••••••••••	••••••
••••••	•••••
b) What is the function of part labeled B.	( ½ mk)
•••••••••••••••••••••••••••••••••••••••	
State four factors that should be considered when siting a fis	
•••••••••••••••••••••••••••••••••••••••	•••••
•••••••••••••••••••••••••••••••••••••••	•••••
•••••••••••••••••••••••••••••••••••••••	•••••

c)

	ate four categories in which diseases in livestock are	
•••••	•••••	
•••••	••••••	
•••••		
	elow is an illustration of a livestock parasite. Study it as that follow.	and answer
\$30°	i)Name the parasite( ½ mk)	
	ate three symptoms that may be observed in an animal by the above parasite.	(1 ½ mks)
	••••••	
•••••		•••••
ii) St	ate the intermediate host of the parasite.	( ½ mk)
•••••	••••••	
•	ive two control measures of the above parasite.	(2mks)

•••••		• • • • • • • • • • • • • • • • • • • •
SEC,	ΓΙΟΝ C: (40 MARKS)	
	ver any TWO questions from this section.	
	escribe five factors to consider when selecting a breeding	g stock. (10ml
	escribe five control measures of diseases in livestock and	
of a	disease controlled by the measure.	(10mks
23. a) b) c) d)	Discuss mastitis disease under the following:- Causal organism. Symptoms. Causes. Control measures. State five reasons for keeping livestock healthy.	(1mk) (5mks) (4mks) (5mks) (5mks)
24.	(a) Explain five reasons why fences are important to a f	farmer. (10mk
(b)	Explain five modern technology methods that have help ty of livestock products in Kenya. (10ml	-

ons. Answers should be written
40 objective lens and X5 eye of view in micrometers. (2mks)
eells on the field of view (2mks)
(3mks)
ansport
1

3.	The lungs and ileum are adapted for a which facilitate absorption.	absorption. State <b>three</b> features they have in common (3mks)	
•••			
4.	The figure below represents a structure of the figure of	re obtained from the ileum of a mammal.  a) Give the identity of the structure.  b) What is the importance of the structure named in (a) above?  c) Name the parts labeled A, B and D.  A	(1 mk) (3mks)
d)	<ul><li>i) Name the juice secreted by the part</li><li>ii) List two enzymes present in the juice</li></ul>	labeled C	
•••			

5. Below is a diagrammatic summary of carefully and answer the questions that	the main biochemical events in photosynthesis. Study it t follow.	
SUN	a) Suggest the identify of molecule P.	(1mk)
Stage A—Chlorap Molecule P	b) Name the gases represented by the letters	(2mks)
Water Water	Q W	
Hydrogen atoms Gas Q	c) Name the specific site for the reactions in stage B	(1mk)
Gas w Glucose	d) Name reaction Z.	(1mk)
Reaction Z	Z	•••••
(i) Vitamin K:		
(ii) Thrombin:		
	•••••••••••••••••••••••••••••••••••••••	
(b) Comment on:	organia ()	
(i) Disadvantage of having blood	group O. (1mk)	
(ii) Advantage of having blood g	roup AB. (1mk)	
•••••		

7.	(a) State the reasons for the following adaptations of the xylem vessels.	(2mks)
	(i) Narrow lumen:	
		•••••
		••••••
	(ii) Lack of cross walls:	
		•••••
	(b) State <b>two</b> distinguishing features of the phloem sieve tubes.	(2mks)
0	(a) State two functional differences between enteries and voins in mammals	(2mlra)
	(a) State <b>two</b> functional differences between arteries and veins in mammals.	
	•••••••••••••••••••••••••••••••••••••••	
••••		•••••••••••
••••		•••••••••••
9.	a) List down <b>three</b> respiratory diseases in human beings	(3mks)
•••		
•••	•••••••••••••••••••••••••••••••••••••••	••••
•••		••••
•••		•••••

b) State the <b>three</b> theories that explain the mechanisms of opening and clo	
••••••	
10. Name the nitrogenous wastes excreted by a fresh water fish	(1mk)
11. State the function of septum in the heart (1mk)	
12. The equation below represents a metabolic process that occurs in the	mammalian liver.
Amino Acids — Organic compound	+ Urea
(a) Name the process	(1mk)
	••••••
(b) What is the importance of the process to the mammal?	(2mks)
•••••	
	••••••

13.	Below is a diagram of an	organism i) State the class which the organism b	elongs to (1mk)
		ii) State two observable characteristics the class you have mentioned in (i) a	above (2mks)
b)	Name <b>two</b> classes of physical in the classes of	lum arthropoda with cephalothorax.	(2mks)
	ii)		•••••••
14.	In mitosis in animals chro	omatids failed to separate and move to oppos	ite poles
•••••	a) Name the organelle that	at the cell was lacking	.(1mk)
b) Nar	_	here cells actively undergo mitosis	(2mks)
		•••••••••••••••••••••••••••••••••••••••	

15. a)	What is the mea	ning of the following te	rms		(2mks)
•••••	•••••	•	•••••	••••	
•••••	•••••	•••••	•••••	••••	
ii) Syn	necology				
b) below.		l distribution of stomata	on three different l	eaves are shown i	n the table
	Leaf	Number	of	stomata	
		Upper epidermis		Lower epidermis	
A		450		0	
В		185		270	
С		03		15	
Sugge	st the possible ha	bitats of the plants from	which the leaves w	vere obtained	(3mks)
A:	•••••		•••••	•••••	•••••
В:	•••••		••••••	•••••••••••••••••••••••••••••••••••••••	•••••
C.					

••••	c) Apart from predation, state <b>two</b> other biotic factors that will influence the distribution organism in an ecosystem.	(2mks)
•••••		••••••
	What is the function of the following structures in the human reproductive organa) Prostate gland	ns? (1mk)
	b) Uterus	(1mk)
	•••••••••••••••••••••••••••••••••••••••	•••••
	c) Epididymis	(1mk)
17.	Define the term <b>oxygen debt</b> as used in biology	(1mks)
•••••		•••••••
••••		••••••

18	18. a) Differentiate between incomplete and complete metamorphosis. Give example		
	in each case.	(4mks)	
••••		••••••	
••••		••••••	
••••			
••••		•••••	
19	. State <b>two</b> adaptations of a seed to its functions.	(2mk)	
••••			
••••		•••••	
••••			
••••		•••••	
••••			
20	. Name the causative agent of cholera	(1mk)	
••••			
••••		••••	
21	. Define the term resolution power as used in microscopy	(1mk)	
<b>41</b>	. Define the term resolution power as used in microscopy	(1mk)	
••••		••••••••••••••••••••••••	
••••		•••••	
••••			
22	. What is haemolysis	(1mk)	
		(=/	
••••		•••••	
••••			

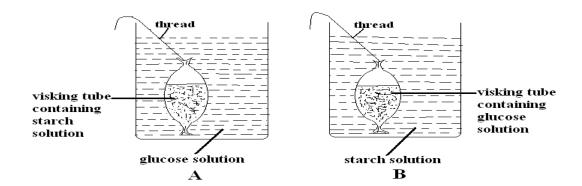
23. a) Name the compound that stores energy released during oxidation of glucose,	(1mk)
b) A goat weighing 15.2kg requires 216KJ while a rat weighing 50g requires 27 Explain. (2mks)	
24. Explain why plants do not require complex excretory organs.	(3mks)
25. Name the instrument used in measuring wind velocity	(1mk)
26. What is ecdysis	(1mk)
	•••••

Name:	
Adm no:	Class:
END TERM 3 EXAMS	
BIOLOGY PP2	

TIME: 2 HRS

#### **INSTRUCTIONS TO CANDIDATES:**

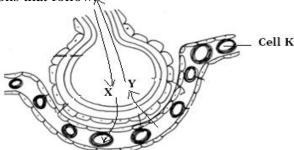
- Answer **ALL** the questions
- Answers should be written in the spaces provided
- 1. The following experiment was set up by a form one class. After an hour, the contents of the visking tubing and the beaker were tested using iodine solution and benedict's solution.



Record in the table below the expected observations after the contents in set up A and B were tested using iodine solution and benedict's solution. [8 marks]

	Visking tubing		Beaker		
Set up	<b>Iodine solution</b>	Benedicts solution	<b>Iodine solution</b>	Benedict's solution	
A					
В					

2. The diagram below shows the association between the alveolus and a blood capillary. Study it and answer the questions that follow,



a) State the physiological process by which the gas labeled X enters the cell labeled K. (1mk)

b)	Identify gases represented by letter X and Y	
	X	(1 mk)
•••		
•••	Y	(1 mk)
•••		
	ive <b>two</b> adaptations of cell K to its functions.	(2mks)
•••		
c)	State <b>three</b> characteristics of respiratory surfaces.	(3mks)
•••		
•••		
	a) Define the following terms as used in animal nutrition	
	i) Dentition	(1mk)
•••		•
••••		
	ii) Homodont and heterodont teeth	(2mks)
•••		
••••		••••••
••••		

State <b>two</b> functions of ileum		••••••	(2mks)
	•••••		
	•••••		••••••
(c) Explain the importance (i) Chlorophyll	of the follow	wing in the process of photosynthesis;	(2mks)
(ii) Light			
(d) State <b>one</b> use of Potassi		ion the body	(1mk)
•••••••••••••••••••••••••••••••••••••••	••••••	rough the female part of a flower.	
Style	a) Na	me the structures labelled W,X, and Y.	
Antipodal cells	X	••••••	••••••
· · ·	Y	••••••	••••••
	$\mathbf{Z}$	••••••	•••••
×		State two functions of the pollen tube.	

••••		c)	What happens	to antipodal cells	after fertilization.	(1	mk)
•••••	d)	Name	the structure la	belled K and state	their role.	(2mks)	••••••
•••••	5.	The f	figure below r	represents a tra	nsverse section o	f a young stem.	•••••
E D			(9 0) (9 0)	В	a) Name the pa	arts labelled <b>A</b> and <b>B</b> on t	he diagram.(2mks)
С	b) St	tate the f	functions of the	parts labelled <b>C, I</b>			
	C:	••••••					·······
	D.	••••••••••••	••••••	•••••••••••••••••••••••••••••••••••••••	•••••••••••••••••••••••••••••••••••••••	•••••••••••••••••••••••••••••••••••••••	••••••

from the root of the same plant.	(3mks)
•••••••••••••••••••••••••••••••••••••••	•••••

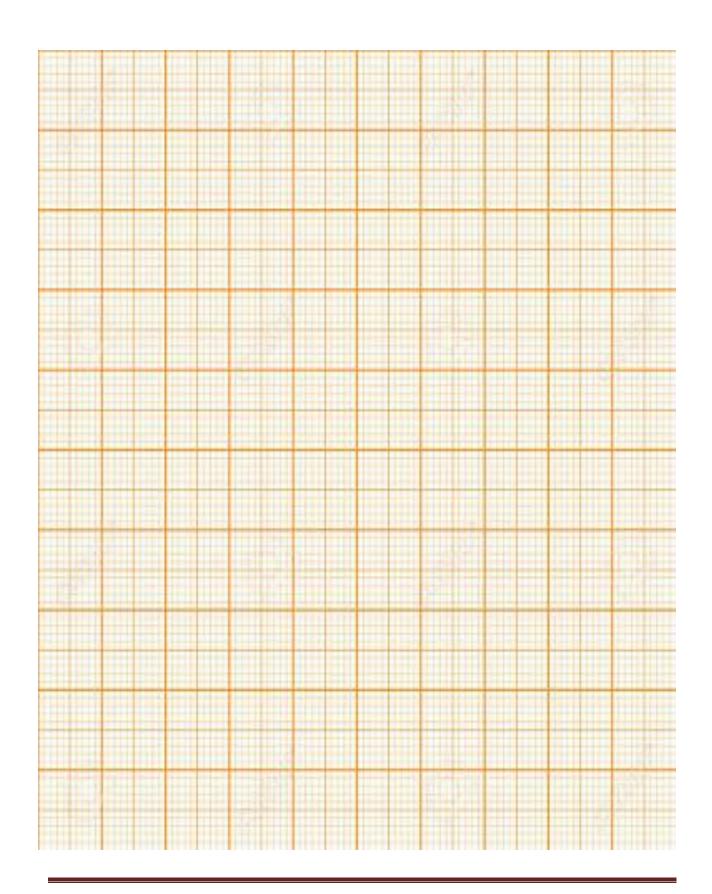
#### **SECTION B( 40 MARKS)**

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

6. The glucose level in mg per 100cm<sup>3</sup> of blood was determined in two person Y and Z. Both had stayed for six hours without taking food. They were fed on equal amount of glucose at the start of the experiment .The amount of glucose in their blood was determined at intervals .The results are shown in the table below.

Times in minutes	Glucose level in blood in mg/100cm <sup>3</sup>	Glucose level in blood in mg/100cm <sup>3</sup>	
	Y	Z	
0	85	78	
20	105	110	
30	105	110	
45	130	170	
60	100	195	
80	93	190	
100	90	140	
120	90	130	
140	88	120	

a) On the grid provided, plot graphs of glucose levels in blood against time on the same axes. (7mks)



b)	What	was the concentration of glucose in the blood of Y and Z at the $50^{\text{th}}$ minut	e? (2mks)
		Y	
•••••	•••••		••••••••
		Z	
••••••	•••••		••••••
	c)	Account for the level of glucose in person Y	
		i) During the first 45 minutes.	(2mks)
••••••	•••••		•••••••••••
••••••	•••••		••••••
••••••	•••••		
••••••	••••••		••••••
		ii) After 45 <sup>th</sup> minute to the end of the experiment.	(4mks)
••••••	•••••	•••••••••••••••••••••••••••••••••••••••	••••••
••••••	••••••		••••
••••••	•••••		•••••••••••
••••••	••••••		•••••••••••
	d)	Account for the decrease in glucose level person Z after 60 minutes.	(2mks)
••••••	••••••		••••••
••••••	•••••		•••••••••••
••••••	•••••		•••••••••••
••••••			••••••••••
	e)	Low blood sugar level in harmful to the body. Explain	(3mks)
••••••	•••••		••••••
•••••	•••••		•••••

••••••		
••••••		•••••••••••
7.a)	State the various causes of seed dormancy.	(8mks)
b)	Describe various factors that affect the process of seed germination.	(12mks)
8.	Discuss the adaptations of the mammalian skin to its functions.	(20mks)

Name:	
Adm no:	Class:
231/3	
BIOLOGY PP3	
FORM THREE	
TIME: 1 <sup>3</sup> / <sub>4</sub> HOURS	
INSTRUCTIONS TO CANDIDATES:	
Answer ALL the questions	
Answers should be written in the spaces provided	
<ol> <li>Take 2 clean test tubes and into each add 5cm³ of dilute h and B. Cut 2 cubes of irish potato measuring 1cm³ each. Bo for about 5 minutes. Drop the boiled cube into test tube your observations</li> </ol>	oil one cube in a boiling tube with some water
(a) Test tube <b>A</b>	(1mk)
Test tube <b>B</b>	(1mk)

## Account for your observations in: Test tube A (1mk) Test tube B (2mks) (b) Take a small piece of substance Z provided and add to it 2cm3 of sodium hydrogen carbonate. (i) State your observations (1mk) (ii) Which physiological process in the body is illustrated above (1mk) (iii) State the part of the body where the process takes place. (1mk) (iv)What is the significance of the process (1mk)

(c) Put 2cm³ of liquid labelled as C into a test tube. Squeeze some juice from specimen X into a beaker. Draw some of the juice into a dropper. Add 3 drops of the juice into the test tube with solution C.

(	i)	State your observation.	(1mk)
•••••	•••••		•••••
(	(ii)	State the part of the human body where the physiological process demandove occurs and the enzyme that carriers out the process.	onstrated (2mks)
		Part of body:	•••••
		Enzyme:	•••••
(	(iii)	Which gland produces the enzyme stated in (ii) above.	(1mk)
•••••	•••••		••••••
(iv) Whi	ich h	ormone stimulates the production of the enzyme stated in (ii) above.	(1mk)
2. Study	the k	cidney diagrams below	
Man a survey of the survey of		FIGURE II  B. FIGURE II	

Page **41** of **218**Prefer Calling Sir Obiero Amos @ 0706 851 439 for the Marking Schemes

	a)	i) Name the parts labeled <b>A</b> , <b>B</b> , <b>C</b> and <b>D</b> in figure 1	(4mks)
		A	•••••
		В	•••••
		C	•••••
		D	
		ii) Name the processes that take place in the parts labeled	(2mks)
		v	•••••
		X	
	b)	State three adaptations of the part labeled <b>W</b>	(3mks)
•••••	••••		•••••
•••••	••••		•••••
•••••	••••		•••••
•••••	••••		•••••
••••••	•••••		••••••
	c)	On the diagram name the part where counter current flow occurs	(1mk)
	d)	State two homeostatic functions of the diagram above	(2mks)
•••••	••••		•••••
•••••	••••		•••••
•••••	••••		•••••

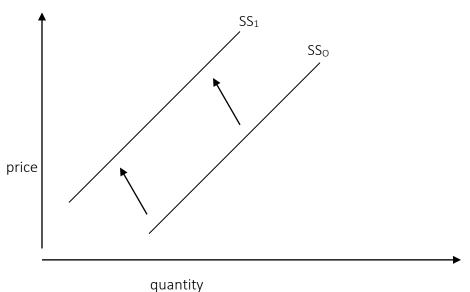
3. Examine the seedlings below and use them to answer the questions that follow:  $R_1$ (a) Name the parts labeled C, D, E and state their importance for the seedling. (1mk) **Imprtance** (1mk) (1mk) (2mks) **Importance** (ii) (lmk) Importance. (lmk)

	(b)	The <b>R</b> series of seedlings on the roots later swell in its life:  (i) What is the name of the swelling:	(lmk)
••••••	••••••		
(ii)	Name	the organisms that would be found in the swellings	(1mk)
(iii)	Explai	n the relationship that exists between the named organisms and the plant.(1mks	)
•••••	•••••••		
(c) ( i)	State t	he type of germination exhibited by <b>R</b> series of the seedlings. (1mk)	
	(ii)	Give a reason for your answer in (c) (i) above.	(1mk)
•••••			
(d)	State a	any <b>two</b> external factors necessary for germination.	(1mk)

NAME:				
ΑC	DM: CLASS:	•		
В	USINESS FORM THREE PAPER 1 END TERM 3			
<u> An</u>	swer all the question in the spaces provided after each			
1.	Outline four circumstances under which a business person would allow a customer to			
aco	quire goods on credit. (4mks)			
••••		•••••		
••••		•••••		
••••		•••••		
••••		•••••		
	State any four errors that will not affect the balancing of a trial balance. (4mks)			
		•••••		
3.	Highlight four demerits of using machines in carrying out office activities. (4mks)	•••••		
••••		•••••		
••••		•••••		
••••		••••		

••••••	Name the factor that each	of the following resources relate to	(4mks)
Reso	ource	Factor of production	
a.	Manager		
b.	Water		
C.	Owner		
d.	Vehicle		
••••	Outline four ways in which	h warehousing promotes trade in Kenya.	(4 marks)

**6.** The diagram below shows a shift in supply curve from  $S_0S_0$  to  $S_1S_1$ 



Identify four factors that have made the supply curve to shift from $S_0S_0$ to $S_1$ $S_1$ (4mks)

7. State the type of advertising that each of the following statements relate to (4mks)

	Statement	Type of advertising
i.	Persuade consumers to buy a product	
i.	Promotes a particular brand of a product	
i.	Create awareness about a product	
<b>/</b> .	Promotes the name of the manufacturer	

**8.** For each of the following transactions, state the account to be debited and the account to be credited. (4mks)

		Transaction	Account to debit	Account to credit
	а.	Paid a creditor from private source		
	b.	Brought in cash from private source		
	C.	Withdrew cash for personal use		
	d.	Bought goods and paid by cheque		
<b>9.</b> State		four reasons why consumers have to make	e a choice between compet	ting needs. (4mks)
	10.	State four limitations of containerization		(4mks)

11.	Highlight four ways in which prices of goods and services may be de	etermined in the
market	other than the forces of demand and supply.	(4mks)
••••••		
••••		
12.	Outline four uses of balance sheet by a business.	(4mks)
•••••		
13.	Outline four reasons why government may find it necessary to prot	tect consumers.
••••••		
••••••		
••••••		

vate company	Public company
<b>15.</b> Highlight four benefit: manufacturer (4mks)	s that nay accrue to a customer who buy goods from a
5 5	s that nay accrue to a customer who buy goods from a
5 5	s that nay accrue to a customer who buy goods from a
5 5	s that nay accrue to a customer who buy goods from a
manufacturer (4mks)	
manufacturer (4mks)	s that nay accrue to a customer who buy goods from a  ces under which a seller would issue a credit note to a buyer(4mks)
manufacturer (4mks)	

17.	Outline four roles of an entrepreneur in a business.	(4mks)
produ	Illustrate with simple diagram, four channels a local farmer would uce. (4 mks)	
••••••		
<b>19.</b> operat	Outline four benefits that will accrue to a firm as a result of increas	ed scale of
••••••		
20.	Give two examples of products that would face the following types	of demand.(4mks)
a)	Derived demand	

b)	Joint demand	
,		
c)	Composite demand	
d)	Competitive demand	
21.	Outline four roles of filing in an office.	(4mks)
22.	Outline four effects of an ageing population on an economy.	(4mks)
23.	Indicate the balance sheet items and show how they would be affected by	the following
transa		J
a.	Purchase of a motor bicycle by cheque	
••••••		••••••

b. Sale of goods on cr	edit to Baraka		
c. A debtor pays his d	ebt in cash		
d. The owner convert	ed his personal house into bu	siness use	
<b>24</b> . The following trial bal	ance was incorrectly prepared		
	KALWAL TRADE	RS	
	TRIAL BALANC AS at 31-Dec-200	E	
	DR		CR
Capital	11000	31000	
Cash in hand	11000		
Creditors	14000		
Insurance		12000	
Debtors	13000		
Drawings		15000	
Bank over draft		6000	
Bank loan	18000		
Stock		18000	
	560	000_	<u>56000</u>

25. Outline four differences between a monopoly	y and a monopolistic competition as product
market	(4mks)
lonopoly	Monopolistic competition

(4 marks)

Required: Prepare the correct trial balance

NAM	E:	
ADM:	: CLASS:	
BUSI	NESS FORM THREE PAPER 2 END TERM 3	
Ansv	ver any five questions	
1.	(a) Explain five principles of insurance	(10mks)
(b)Ex	xplain five ways through which containers may be in effective as a	way of
movi	ing goods <b>(10mks)</b>	
2.	(a) Explain five internal economies of scale that may be experien	nced by the
firm <b>(</b>	(10mks)	
(b) E	xplain five factors to be considered when setting up an office layo	ut for a
busir	ness organization (10mks)	
3.	(a) Explain five causes of unemployment (10mks)	
b)	Explain five benefits of preparing a business plan to a firm	(10 marks)
<b>4.</b> (a)	Explain five factors that influence choice of product promotion	(10mks)
b)Exp	plain five roles played by commercial attaches in trade promotion	(10
mark	cs)	

- **5.(**a) Describe five differences between a movement along a demand curve and a shift of a demand curve **(10mks)**
- b) The following information relates to Maralal Traders for the month of May 2014.
- May 1: Balance brought forward:

Cash Shs. 180,000

Bank Shs. 450,000 (Cr)

- 3: Received a cheque of 1,500,000 from Mpasha, a debtor
- 7: Cash sales Shs. 280,000
- 11: Jolloimat, a creditor of Shs.600, 000 was paid by cheque of sh 400,000 and the balance

by cash.

- 14: Received commission in cash sh. 150,000
- 17: A debtor, Leteipa, paid his account of 185,000 by cheque less 2% cash discount.
  - 19: Paid the following expenses by cheque:

Rent Shs. 75,000

Electricity Shs. 32,000

Water Shs. 25,000

- 21: Withdrew Shs. 100,000 from bank for personal use
- 24: Paid cash Shs 133,280 to Kinai after deducting a cash discount of 2%
- 25: Received a cheque of sh. 200,000 from Kiyapi, a debtor
- 28: Paid Salaries Shs. 120,000 by cheque.
- 31: Banked all cash except sh. 50,000.

## Required:

Record the above transactions in a three column cash book. (10marks)

- **6.** (a) Explain five reasons that may limit use of pipeline transport in a country **(10mks)**
- (b) Kavetsa had the following balances on 1st January 2010

sh

Motor vehicle	210,000
Debtors	20,000
Cash	90,000
Stock	25,000
Creditors	40,000
Cash at Bank	50,000

During the month, the following transactions took place

2010 January 4: paid sh 12,000 to creditors by cheque

" 13: purchased stock worth sh 18,000 on credit

" 26: deposited sh 6,000 into the business bank account from cash

till

Record the above transactions in the relevant ledger accounts and balance them off (10mks )

NA	ME:
AD	OM NO: CLASS:
FO	D YEAR EXAMINATIONS  ORM THREE IEMISTRY PAPER1 CODE: 233/1
	TIME 2 HOURS INSTRUCTIONS TO CANDIDATES
	<ul> <li>Write your name, class and Admission Number in the spaces provided above.</li> <li>Answer ALL questions in the spaces provided.</li> </ul>
	<ul> <li>Mathematical tables and electronic calculators may be used.</li> <li>All workings MUST be clearly shown where necessary.</li> </ul>
	<ol> <li>Explain why burning magnesium continues to burn in a gas jar full of sulphur (IV) oxide while a burning splint would be extinguished. (3 marks)</li> </ol>
2.	Draw structural formulae and name two positional isomers with molecular formula $C_4H_8$ . (2 marks)

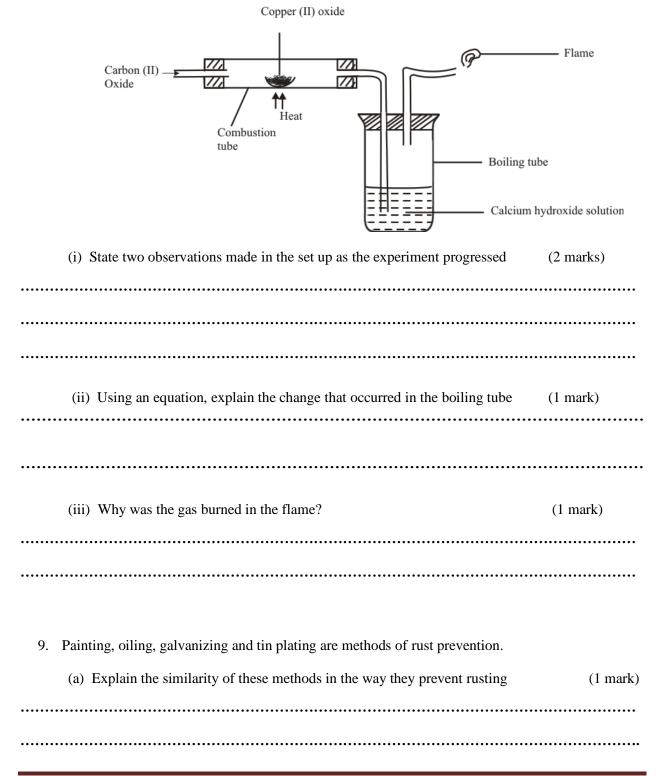
3.	Dry Hydrogen chloride gas was made to dissolve in water using the set of a	pparatus shown
	below  Dry hydrogen	
	Chloride	
	Funnel  Blue litmus paper  Water	
	(a) What is the use of the inverted funnel?	(1 mark)
•••••		•••••
•••••		
	(b) State and explain the observations made on the litmus paper	(2 mark)
•••••		•••••
•••••	•••••••••••••••••••••••••••••••••••••••	••••••
	(c) State and explain the observation made on the litmus paper if methylbenzene	is used instead of
	water in the above set up.	(2 mark)
•••••		••••••
•••••		•••••
• • • • • •		•••••
•••••	•••••••••••••••••••••••••••••••••••••••	•••••
4.	Using sodium hydroxide solution, describe a chemical test that can be used to dis	-
	copper (II) ions and iron (II) ions	(2 marks)
•••••		•••••
•••••		

The flow chart be questions that follows:		ory preparation of chlorine	gas. Study it and answ
Mn O₂ + W Heat	Cl <sub>2(g)</sub>	Water	Y
(a) Name substan	nces		<b>♦ Dry chlorine gas</b> (2 marks)
W		Y	
(b) What is the f	function of water in t	he above set up?	(1 mark)

		-									
	Ι								Q	M	
		J								N	
	K	L				P					
a) Giv	e the far	nily nam	ne to which	elements <b>N</b>	M and N be	long			(1 m	ark)	
•••••	• • • • • • • •	• • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • •	•••••	•••••	•••••	•••••	•••••	•••••	•••••
	• • • • • • • •		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	•••••	•••••	•••••	•••••	•••••	•••••	•••••
(b) Compare the reactivity of elements <b>I</b> and <b>K</b> . Give a reason (2 mark)											
•••••											
•••••	• • • • • • • • •	•••••	••••••	•••••	• • • • • • • • • • • • • •	•••••	•	• • • • • • • •	• • • • • • •	•••••	••••••
(c) W	rite the	formula	of the comp	ound form	ned when P	reacts w	vith <b>Q</b>			(1	mark)

7. Below is a sample of the periodic table

8. Study the experimental set up of apparatus shown below.



(b) Explain why galvanized iron objects are better protected even when scratche	
<ol> <li>The chemical equations below are the main reactions in large scale manufa carbonate.</li> </ol>	cture of sodium
$NH_{3(g)} + CO_{2(g)} + H_2O_{(l)} \longrightarrow NH_4HCO_{3(aq)}$	
$NH_4HCO_{3(aq)} + NaCl_{(aq)} \longrightarrow NaHCO_{3(s)} + NH_4Cl_{(aq)}$	
(a) Explain how the two products NaHCO <sub>3</sub> and NH <sub>4</sub> Cl are separated	(1 mark)
	••••••
	•••••
(b)How sodium carbonate is finally obtained from NaHCO <sub>3</sub> ?	(1 mark)
	••••••
	•••••
(c) Explain how ammonia is recovered in this process.	(1 mark)
	•••••

		O seconds. How long will it take the same conditions? ( $N = 14$ ,	
12. Filtration is carried out in the	e apparatus shown  — Filter paper  — X  Funnel  — Beaker  — Y		
Name:  X  13. Two carbonates <b>P</b> and <b>Q</b> are below.		(2 marks Yating. The results are given in the	••••
Carbonate	Mass in grams		7
	Before heating	After heating	
P	15.0	15.0	
Q	15.0	10.0	
			_
Which one is likely to be so	dium carbonate? Explain.	(2 marks	s) 

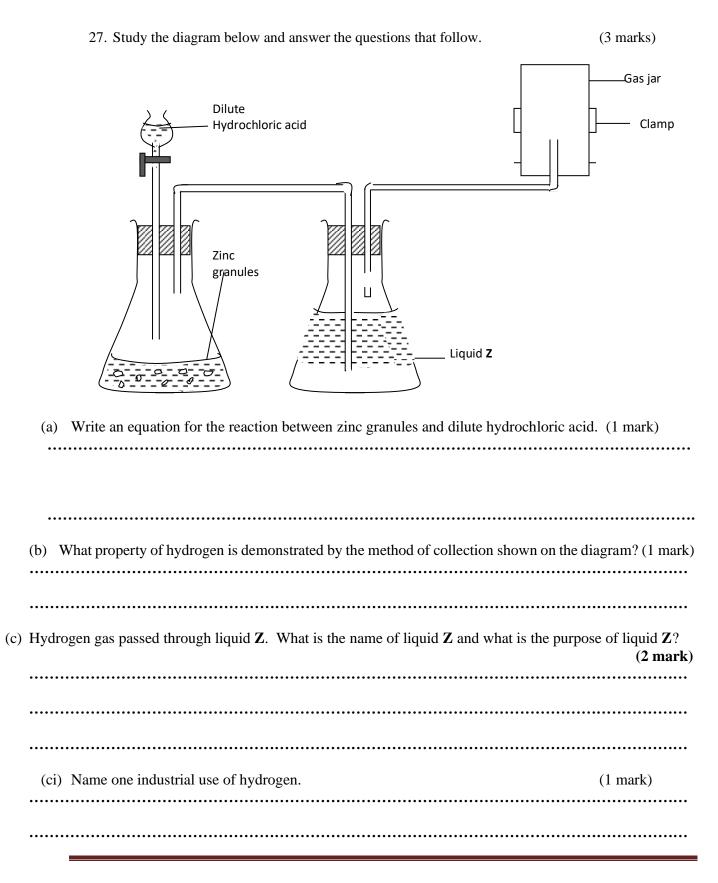
14.	Describe how	you would separ	ate a solid mixture of	lead (II) chloride	and copper (II)	oxide (3 marks)
••••	••••••	••••••	•••••	••••••	• • • • • • • • • • • • • • • • • • • •	••••••
••••	•••••	•••••	••••••	•••••	•••••	•••••
••••	••••••	•••••	••••••	•••••	• • • • • • • • • • • • • • • • • • • •	•••••
••••	•••••	•••••	•••••	•••••	•••••	
15	5. The general f	formula for a hon	nologous series of org	ganic compounds	in $C_nH_{2n+2}$	
	(a) Give the	e name and struct	tural formula of the fo	ourth member of	the series	(2 marks)
	(i) Name:					
	(ii) Structur	ral formula:		••••		
	(b) Write an	equation for the	combustion reaction		ecule	(1mark)
••••						
16		below shows son	ne reactions sequence			
			Solution P	Few drops of NH <sub>3</sub> (aq)	White precipitate	
	Solid N	Dil HCl(aq)			Excess	NH₃(aq)
			Gas R which explodes With a pop sou	ınd	Colourless solution Q	
a) I	dentify solid N					
••••	••••••	•••••	•••••	•••••	•••••	••••••
••••	•••••	•••••	• • • • • • • • • • • • • • • • • • • •	•••••	• • • • • • • • • • • • • • • • • • • •	•••••

b) Write the equation for the formation of the colourless solution Q	(1 mark)
c) Give the identity of gas R	(1 mark)
	••••••
17. In an experiment, a gas jar containing moist sulphur (IV) oxide was inverted containing hydrogen sulphide gas.	over another gas jar
(a) State and explain the observation that was made	(2 marks)
	•••••
	•••••
(b) State the precautions that should be taken when carrying out this experim	nent (1 mark)
	•••••
	•••••
18. The graph below shows the behavior of a fixed mass of a gas at constant temp	perature
Pressure (Atmospheres)  Volume (litres)	

(a)	(a) What is the relationship between the volume and pressure of the gas? (1 m					(1 mark)
	·		_	-	_	o atmospheres at
co	nstant temperatui	e. Calculate th	ne new volume	e occupied by t	he oxygen gas.	(2 marks)
	e table below shown $M_2$ of element $N_2$		e atomic mass	es and percenta	ages abundance o	f the isotopes M
		Relative a	abundance		% abundance	
	$M_1$	60.57			59.71	
	$M_2$	62.83			40.29	
Calculate (	he relative atomi	c mass of elem	ent <b>M</b>		(2 r	narks)
20. The	e table below sho	ws the pH valu	es of solutions	s A,B,C and D		
	solution	A	В	С	D	
	pН	2	7	11	14	

(a) Which solution is likely to be that of calcium hydroxide	(1 mark)
(b) Select the solution in which a sample of aluminum oxide is likely to disso	olve. Give a reason for your (1 mark)
21. Name one property of neon that makes it possible to be used in electric	lamps. (1mark)
22. Distinguish between ionic bond and covalent bond	(2 marks)
23. Explain why the boiling point of hexane is higher than that of ethane. ethane is <b>30</b> while that of hexane is <b>86</b> )	

	affected	student was stung by a nettle plant, a teacher applied an aqueous solution of area of the skin and the student was relieved of pain. Explain	(2 marks)
			•••••
25.	Using d	lots(.) and crosses (x) show the bonding $\mathrm{NH_4}^+$	(3mks)
•••••			
	(ii)	Carbon (IV) oxide.	
•••••	•••••		
	(iii)	Potassium chloride	
•••••	•••••		•••••
26.		applete combustion of a hydrocarbon gas $X$ , 1.32g of carbon (IV) oxide and te the empirical formula of $X$ ( $C = 12.0$ , $H = 1$ , $O = 16.0$ )	d 0.54g of water. (3 marks)



28.	Three liquids were mixed together accidentally and this included lubricating oil, kerosene and wat	ter
	The table below gives information about the properties of the liquids.	

Constituent	Boiling point in <sup>0</sup> C	Solubility in water	Solubility kerosene
Lubricating oil	350 – 400	Insoluble	Soluble
Kerosene oil	175 – 250	Insoluble	
Water	100		Insoluble

Suggest a method you would use to separate the three liquids.	(2 marks)
29. a) Define the term allotropy	(1mk)
	•••••••••••••••••••••••••••••••••••••••
b) Name the two allotropes of sulphur	(2 mks)
A concentrated solution of Sulphuric (VI) acid contains $70\%$ H <sub>2</sub> SO <sub>4</sub> and Determine the molarity of Sulphuric (VI) acid solution. (H= I, S=32, 0=16)	

30.

NAME							
CLASS:	CLASS: ADM NO:						
END '	END YEAR EXAMINATIONS FORM THREE CHEMISTRY PAPER 2 233/2						
TIME	: 2 HOURS						
INSTE	RUCTIONS TO CANDIDATI	<u>ES</u>					
<b>*</b>	Answer ALL questions in the spendathematical tables and electrical workings MUST be clearly stated to the table below shows the info	ronic calculators <b>MAY</b> be used	U, V, and W. the letter are not				
2.	Element	Period	Formula of oxide				
	S	2	S <sub>2</sub> O				
	Т	3	T <sub>2</sub> O <sub>3</sub>				
	U	3	UO <sub>2</sub> or UO <sub>3</sub>				
	V	3	Does not form oxide				
	W	4	W <sub>2</sub> O				
(a)	Write down:-  (i) The electronic arrangen  (ii) The formula of the ion f	nent of the element W	44.13				
	( ,		νγ				

(b)	Two of the oxides, S₂O and UO₃ are apparently dissolved in distilled water. Compare the PH value				
	of the resulting solutions.	(2mks)			
		•••••••••••••••••••••••••••••••••••••••			
(c)	Compare with an explanation the following.	/2males			
	(i) The reactivity of S with that of W.	(2mks)			
••••••					
••••••					
	(ii) The electrical conductivity of T with that of magnesium.	(2mks)			
••••••					
	(iii) The melting point of U with that of X which is just below U in the group.	(2mks)			
••••••					
(d)	Write the electronic configuration of V	(1mk)			
(4)	The the electronic comigaration of V.	(±1111)			
(e)	<b>Select two</b> elements which are non – metals.	(1mk)			
••••••		•••••••••••••••••••••••••••••••••••••••			
••••••					

	(f)	Select two elements which belong to the same group.	(1mk)
	3.	The set up below is used to prepare and collect dry samples of hydrogen sulphide gas.	
		s	
		me suitable substances for use as	(2mks)
	(ii) S:		
b)	Comp	plete the diagram to show how dry hydrogen sulphide gas is obtained and collected	. (3 mks)
	c) W <sub>1</sub>	rite a balanced equation for the reaction between L and S named in (a) above.	(1mk)
	d) (i)	State the effect of hydrogen sulphide gas on litmus.	(1mk)

	(ii) State a chemical test for hydrogen sulphide gas.	(1mk)	
			•••••
(iii)	What do you observe when hydrogen sulphide gas is passed through aqueous zin		(1mk)
	e) (i) Name the process used to extract sulphur from the ground in Louisiana and	1 Tayas	
	c) (1) Traine the process used to extract surplut from the ground in Louisiana and	······	••••••
	(ii) State the uses of the following materials during extraction of sulphur.	••••••	•••••
	I - Super heated water.	•••••	(1mk)
		••••••	•••••
	II - Hot compressed air.		1mk)
			•••••
		•••••	
	f) (i) Name the process used to manufacture Sulphuric (VI) acid.		(½mk)
		•••••	•••••

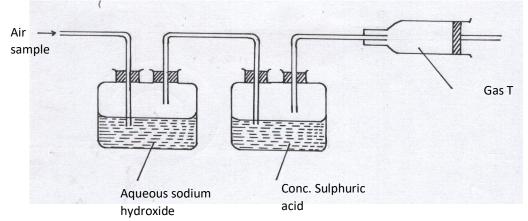
(ii) Calculate the mass of S 125.2 tons of ammonium s	sulphuric (VI) acid required t sulphate fertilizer.	o react with excess ammor	nia gas to produce (3mks)
iii) State the property of S	Sulphuric (VI) acid that is		
the questions that	ow shows how nitric (v) acid follows.	Heat	Catalytic Chamber (C)
	Hot water  Absorption  tower	Reaction Chamber	Purified Air
<ul><li>a) State the functions of</li><li>(i) Purifier</li></ul>	of:		(1mk)

(ii)	Heat ex	changer	(1mk)
b)	Identify (i)	Gas A:	( ½ mk)
	(ii)	Gas B:	(½ mk)
	(iii)	Catalyst C:	( ½ mk)
c)	(i) In o	quations for the reaction that take place. catalytic chamber.	(1mk)
	(ii) In a	bsorption tower.	(1mk)
-		ne molarity of the commercial nitric (v) acid, given that it is 68% pure =14, H=1,)=16)	e and has a density of ( 2 ½ mks)

Observation	
observations made using:	
llphate.	(1mk
	(1mk
	(21110
	e observations made using: ulphate.

e) (i) Complete the table below to show the observations made when concentrated nitric (v) acid is

5. In order to find out the proportion by volume of one of the main constituents of air, the following set up was established



a) (i) Name two constituents of gas <b>T</b>	(1mk)
(ii) Suggest a reason for passing air through:	
I Aqueous sodium hydroxide	(1mk)
II Concentrated sulphuric acid	(1mk)

b) The volume of the gas collected in the syringe was 60cm<sup>3</sup>. This was passed repeatedly over hot copper powder in the combustion tube until no further change of volume took place. When cooled to the original temperature, the volume was reduced to 47.4cm<sup>3</sup>

(i) What observation was made in the combustion tube?

(1mk)

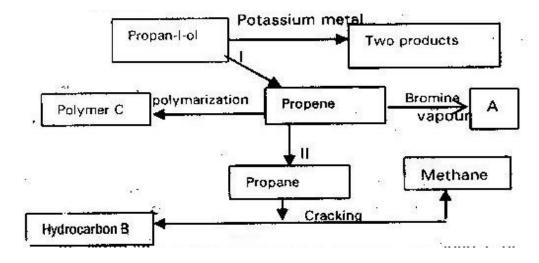
(ii) Which constituent of air was removed by copper powder?	(1mk)
(iii) Calculate the percentage of the gas in (ii) above in the sample of air	(2 mks)
c) The remaining gas in the syringe was repeatedly passed over hot Magnesium metal in the	e second
combustion tube	
(i) Name the main component in 47.4cm <sup>3</sup> of the remaining gas	(1mk)
(ii) Write an equation for the reaction in the second combustion tube	(1mk)
(iii)Name two of the gases still in the syringe at the end of the experiment.	(2 mks)

<ul><li>d) Iron roofing sheets are coated with Zinc as a sacrificial metal</li><li>(i) What is meant by the term "sacrificial"</li></ul>	(1mk)
(ii) Give the name given to the process by which iron sheets are coated with Zinc	(1mk)
(iii) Write the equation of the reaction in which Iron rusts	(1mk)
(iii) Zinc is higher than Iron in the reactivity series yet it does not corrode as fast as Iron	on. Explain (1mk
6. In an experiment to determine the percentage of impurity in Sodium carbonate Sodium carbonate was reacted with excess 2M Hydrochloric acid. 340cm³ of dry Carbo was collected during the experiment at room temperature and pressure. (Na=23, 0=16 gas volume at r.t.p=24dm³)	on (IV) oxide gas
a) Why was excess 2M Hydrochloric acid used in the experiment?	(1mk)
b) Write an equation for the reaction that produced Carbon (IV) oxide	(1mk)

c) Calculate  i. The number of moles of Carbon (IV) oxide produced	(2mks)
ii. The number of moles of Sodium carbonate that reacted with the acid	(2mks)
iii. The mass of Sodium carbonate that reacted with the acid	(2mks)
iv.The percentage of impurities in the sample of Sodium carbonate	(2mks)
<ul> <li>7. a)Write down the structural formula of the following compounds</li> <li>(i) 2, 2 – Dimethypropane</li> </ul>	( 1 mk)

	(ii) 2 – C	Chloropropen	e		( 1 mk)
	iii) Tetra	a chloro meth	nane		(1 mk)
b)	A,B,C ar	e three home	ologous seri	es of organic compounds	
		Series		General formula	]
	_	A		$C_nH_{2n-2}$	1
		В		$C_nH_{2n}$	-
		С		C <sub>n</sub> H <sub>2n+2</sub>	_
(i) Wha	nt is the n	ame given to	series C		(1 mk)
•••••	••••••		•••••••••••		
(ii) Wri	ite down	the name an	d structural	formula of the third member of series "B"	(2mks)
	Name: .		••••••		
	Structur	re:			
(iii) W series	"B"			the products of reaction between HBr with secon	(2 mks)
••••••	••••••				
			•••••		•••••

c) Study the scheme given and answer the questions that follow



i.	Write an equation for the reaction in process II	( 1mk)


231/3

**BIOLOGY PP3** 

**FORM THREE** 

OCT

TIME: 13/4 HOURS

#### **CONFIDENTIAL**

### Each candidate will require the following:

- 10cm<sup>3</sup> of dilute hydrogen peroxide.
- 1 piece of Irish potato.
- 1 boiling tube
- Source of heat
- Small piece of Cooking fat labeled as substance Z
- 2cm³ of milk in test tube labeled as solution C
- 1 piece of lemon labeled X
- 2 clean test tubes
- 2cm³ of sodium hydrogen carbonate solution.

NAME:	••••	• • • • • • • • • • • • • • • • • • • •	•••••
ADM NO:	CLASS:	•••••	•••••
CHEMISTRY PAPER 3 FORM	THREE END OF	YEAR EXAM	
TIME: 1 ¾ HOURS			
<ol> <li>You are provided with:         <ul> <li>Dilute hydrochloric acid labe</li> <li>Solution B containing 3.15g solution.</li> <li>Sodium hydroxide solution labe</li> </ul> </li> </ol>	of dibasic acid H <sub>2</sub> C <sub>2</sub> C	04.2H <sub>2</sub> O dissolve	d to form 500cm <sup>3</sup> of
You are required to:  Standardize the sodium hy Use the standardized solution		concentration of s	solution A.
Procedure:  (i) Place solution B in a clean burette (ii) Using a pipette and a pipette filler two drops of phenolphthalein indicate 1.	r, place 25cm <sup>3</sup> of solu		
Table 1 Volume of pipette used =	(1 mk)		
	I	II	III
Final burette reading (cm <sup>3</sup> )			
Initial burette reading (cm <sup>3</sup> )			
Volume of solution B used (cm <sup>3</sup> )			
(a) Calculate the:		1	(4 mks)
(i) Average volume of solutio	on B used.		(1 mk)

(ii) Concentration of the dibasic solution B in moles per litre. (H = 1, O = 16, C = 12) (4 mks)			
(ii) Concentration of the sodium	n hydroxide solutio	n C in moles.	(4 mks)
Procedure II:  (i) Using a clean measuring cylinder, movelumetric flask.	neasure 25cm <sup>3</sup> of so	olution A and transfe	er into 250ml
<ul> <li>(ii) Use distilled water to top up the sol</li> <li>(iii) Mix the solution well and label it a</li> <li>(v) Clean the burette and place solution</li> <li>(v) Using a pipette and pipette filler, pladrops of phenolphthalein indicator.</li> <li>(vi) Titrate the concentration in the con</li> <li>Repeat the titration two more times and rec</li> </ul> TABLE 2	solution K.  K.  ace 25cm <sup>3</sup> of solution  ical flask with solution	ion C into a conical	flask and add two
Volume of pipette used =	(	(1 mk)	
	I	II	III
Initial burette reading (cm <sup>3</sup> )			
Final burette reading			
Volume of solution K used (cm <sup>3</sup> )			

(a) What is the average volume of solution K used?	(1 mk)
(b) Calculate the concentration of solution K in moles per litre.	(4 mks)
(c) Determine the concentration of solution A in moles per litre.	(3 mks)

2. You are provided with solid D. Carry out the tests below and record your observations and inferences in the spaces provided.  a) Place solid D in a boiling tube. Add about 8cm <sup>3</sup> of distilled water to dissolve the solid. Divide the solution into four portions. (3 mks)		
Observations	Inferences	
b) To the first portion, add ageous soc	dium hydroxide dropwise until in excess. (3 mks)	
Observations	Inferences	
(c) To the second portion, add ageous and Observations	ammonia dropwise until in excess. (2 mks)  Inferences	

(3 mks)
(2 mks)
S

NAME:
ADM. NO: CLASS:
CHRISTIAN RELIGIOUS EDUCATION END YEAR EXAM END OF TERM 3
<b>FORM THREE PAPER ONE</b> 1. a) Name <b>six</b> books that belong to minor prophets. (6mks)
b) Give <b>eight</b> reasons why the Bible was translated into different languages . (8mks)
c) Outline <b>six</b> ways in which the teaching of Christian Religious Education enhances national unity. (6mks)
<ul> <li>a) Outline eight ways in which Abraham demonstrated his faith in God. (8mks)</li> <li>b) State six instructions of God to Abraham regarding circumcision. (6mks)</li> </ul>
c) Explain <b>six</b> factors that have undermined traditional African circumcision (6mks)
<ul> <li>3. a) State seven characteristics of the local Canaanite religion. (7mks)</li> <li>b) Explain seven forms of punishment prophesized by Elijah on King Ahab and Jezebel. (7mks)</li> <li>c) Give six reasons why killing was condemned in traditional African communities. (6mks)</li> </ul>

2.

4.	Explain <b>five</b> reasons why God sent	prophets in Israel	(10 mks)
	b) State <b>six</b> teachings of prophet A (6mks)	Amos on hypocritical religion	on in Israel.
c)	State <b>four</b> lessons Christians leant al (4mks)	bout God from the visions	of Prophet Amos.
5.	a) Give <b>six</b> reasons why the rebuild Nehemiah's people. (6mks)	ling of the wall of Jerusaler	n was important to
	b) Explain the suffering and lamenta	ations of Jeremiah	(7mks)
c) (	Give <b>seven</b> reasons why it is difficult to	to have reforms in Kenya.	(7mks)
	6. a) Explain factors which pro	omote harmony and mutua	l responsibility in (8marks)
b)	Identify <b>six</b> importance of observin (6 marks)	ng taboos in African tradition	onal Communities?
c)	Identify six factors which have led to	o decline in observance of ta	boos in Traditional
	African Communities.	(6 marks)	

NAME:	••••••
ADM No:	Date:
313/2	
CRE	
TIME: 2 ½ hours	
FORM THREE	
PAPER 2	

#### **Instructions to Students**

- 1. This paper consists of 2 pages.
- 2. Answer any five questions
- 3. All the questions carry equal marks
- 4. Use English when answering questions
- 1. a) Outline Isaiah's prophecy concerning the Messiah according to Isaiah 61:1-2 (6mks)
- b) State **six** similarities between the Magnificat and the Benedictus. (6mks)
- c) In what ways do Christians express their gratitude to God? (8mks)
- 2. a) Describe the incident when Jesus healed the paralytic in Luke 5:17-25 (8mks)
  - b) List down six methods that Jesus used to spread the gospel (6mks)
  - c) How is the church in Kenya helping the sick (6mks)
- 3a) Outline **six** teachings of Jesus on the sermon on the plain on how human beings should relate to one another.(6 marks)

- (b) Describe the incident in which Jesus forgave the sinful woman (7 marks)
- (c) List **seven** reasons why Christians should ask for forgiveness from God. (7 marks)
- 4. a) Identify six groups of people who can be described as unfortunate in St. Luke's Gospel (6mks)
  - b) Relate the parable of the prodigal son in Luke 15:11-32
  - c) Give lessons Christians learn from the parables of the lost according to Luke's Gospel.6mks)
- 5. (a) Describe the incident in which Jesus had the last supper with His disciples (Luke 22:14-38). (7 marks)
- (b) Give reasons why Jesus used bread and wine during the last supper. (6 marks)
- (c) Outline the seven importance of celebrating the Holy Communion in the church today. (7 marks)
- 6.(a) Give six ways in which the Holy Spirit manifested Himself on the day of Pentecost. (6mks)
- b) Explain the new testament teaching on the people of God. (8mks)
- c) How can Christians in Kenya prevent divisions in the Church today. (6mks)

NAME	••
ADM NO CLASS	•
101/1 ENGLISH PAPER 1 (FUNCTIONAL SKILLS, CLOZE TEST AND ORAL	
SKILLS) TIME 2HRS	
END OF TERM 3 EXAM	
1.FUNCTIONAL WRITING	
Imagine that you are organizing secretary of Ruth Kerubo's Graduation Party. Ruth has just graduated with a First Class Honour's from Kenyatta University.	
(a)Design an invitation card to be sent to the guests (10mks)	
b) Write a congratulatory note to Ruth to be presented that day (10mks)	
2.CLOZE TEST (10mks)	
Read the passage below and fill in each blank space with the most appropriate word.	
Passing National Examination in Kenya has become a matter 1 This is prima	arily
because , more often than not , examination 2 the future of the student .	
From our collective experience this is very clear . A standard eight pupil must 3	_
well secure a place in a good 4 school . Similarly , a form four candidate must	not
just pass, but must also be among the students who score public 5 The rev	erse
often has painful consequences for the student, 6 means falling by the	
wayside and in a country with limited employment 7, chances of a decent	
livelihood become severely compromised .It is precisely because of those stark realities that	
students find 8 under seething pressure to pass 9 On	the
other hand, parents who know all too well that failing to score good grades could mean that	the
end of the road of their children's 10 are willing to cut all corners to ensu	ıre
the children pass their exams.	

#### 3.ORAL SKILLS (30mks)

(a) Read the narrative below and answer the questions that follow.

#### THE COCK AND THE KITE

(The setting of the story is in Kibiro, Uganda in the Western Rift Valley near Lake Albert)

A long time ago, there lived cock and his family as well as kite and his family. The former was hard working while the latter was lazy. It happened that the place was hit by a famine. People from far used to travel a long way to go to Kibiro to barter food for salt. It also happened that both families ran out of salt. Cock's wife informed her husband that they had ran out of salt and asked him to take some finger millet to Kibiro. He agreed, went to Kibiro, obtained salt and set upon the return journey.

The other family got wind of this .Mrs.Kite also asked her husband her husband to go to Kibiro and try to get salt since the lazy family did not have anything to take to Kibiro .On the way , he met the cock resting on his way home with the salt behind him .He was standing on one leg having hidden one of his leg in his wing , as cocks do many times when resting .Kite asked cock how he managed to get the salt , where upon cock told kite that the salt miners ad cut off one of his legs in exchange for the salt .Kite accepted the lie and proceeded towards Kibiro ready to do the same .Cock continued on his journey and got home safely .

On arrival at Kibiro, Kite offered his leg for a bundle of salt which the miners readily accepted . His leg was consequently amputated, rendering him immobile, even unable to carry home salt poor kite flew back home, where he was received by his family in much grief, especially when he narrated to them the ordeal he went through. Later, kite's family was to receive the traumatizing news that cock had actually ill-advanced Kite, leading to loss of his leg.

Hence forward, great enmity ensued between the two families with Kite's family swearing to retaliate by hunting Cock's family down and eat them. This goes -+on to date.

(i)The narrator notices signs of in attentiveness among the audience during the story telling session What could be the problem? (4mks)
•••••••••••••••••••••••••••••••••••••••
•••••••••••••••••••••••••••••••••••••••
••••••
(ii) Explain how you would make the narration of the first two paragraphs effective. (3mks)
•••••••••••••••••••••••••••••••••••••••
•••••••••••••••••••••••••••••••••••••••
(iii)Mention three ways in which you would know that your audience in this story is fully participating in the performance. (3mks)
•••••••••••••••••••••••••••••••••••••••
(b)Underline the silent letter in the words below (4mks)
Pseudo
Subtle
Deign
Damn

(c)Explain the meaning brought out by stressing the underlined word in each of the following sentences. (3mks)
(i <u>) Muriithi</u> spoke to Gatwiri yesterday .
(ii) Muriithi spoke to Gatwiri yesterday .
(iii)Muriithi spoke to Gatwiri <u>yesterday.</u>
(d)Read the following conversation and answer the questions that follow. (7mks)
MBAIRE:hi Mr.Katana, long time no see.
MR .KATANA: hello Mbaire , how have you been for so long ?
MBAIRE:I'm fit as you can see .
MR.KATANA: What a surprise to see you here! Do you live around this area?
MBAIRE:Hi , just popped in to have a glimpse of some associates of mine .And you ?
MR.KATANA: Well, I came to visit a colleague who has been ailing for some time. You
remember Mr. Kwach ?
MBAIRE:Yes, the leopard!Who can forget him? He used to
MR.KATANA:Well , I must be going .Goodbye.
MBAIRE:See you.
(i)Identify one short coming in Mbaire's responses.(2mks)
•••••••••••••••••••••••••••••••••••••••

(ii)Give four aspects of speech that Mbaire needs to consider so as to communicate effectively and in an appropriate manner.(4mks)
(iii)Give two possible reasons for MrKatana's exit before Mbaire finishes speaking .(2mks)
(e)Write another word pronounced the same way as the word given below. (3mks)  Call-
Awe-
(f)In the words given below .Underline the part that should be stressed.(2mks)
(i)Excuse (verb)
(ii)Reject (noun)

## FORM 3 END TERM 3 EXAM ENGLISH PAPER 2

#### 1. Read the passage below and then answer the questions that follow.

#### THE DETOX DEBATE

Detox kits and supplements are recent health fads. But can they really help you lose weight fast? Online weight loss coach Andrew Cate investigates.

We'veheard a lot about the need to detox lately. It is the term used to describe a strict program of elimination and supplementation that is meant to rid your body of impurities, cleaning your liver and kidneys, and flushing your bowel. It is suggested that toxins build up from consuming too much fat, sugar, alcohol, caffeine, preservatives and pollution.

There's no shortage of detox books, kit and programs claiming to help you shed weight, improve your well-being, cause your skin to radiate and make you feel younger. The kits usually contains a dietary program which is supplemented with a variety of vitamins, minerals, tonics, digestive aids and <u>laxatives</u>. They are particularly popular in January as people feel the urge to begin the New Year afresh after overindulging during the festive season.

People will make drastic changes when they go on a detox diet and often feel better for starting a structured regime. However, detox kits made up of herbal laxatives and diuretics are unnecessary and have generally no proven benefit. Detox regimes do not improve kidneys and liver function. These organs are designed to filter your blood fats, alcohol and other nasties- all without the help of a fancy box from your local pharmacy. There is no scientific evidence to support specific detox diets. Programs or supplement kits. However, there's no debate about the fact that eating less junk food, cutting out cigarettes and your alcohol intake etc will benefit your health. For example drinking more water and cutting out caffeine will improve your bowel function. These changes will enhance your well-being but there's nothing magical about the detox diet itself. Rather it's the associated lifestyle changes that benefit your health.

Detox kits that contains laxatives and diuretics to encourage you to fast could, potentially, do more harm than good. Laxatives speed up your bowel motions, but also prevent absorption of nutrients, while diuretics can result to partial dehydration.

The fasting component of a detox should only be minimal, and not extend beyond a day or two. By eating next to nothing, you are not getting enough nutrients for the essential functions of your

body. Supplements are no substitute for real food, and relying solely on them can result in vitamin <u>deficiencies</u>. Fasting is also known to slow down your metabolic rate, which encourages your body to store fat, making it harder to lose body fat in the future.

If you've spent weeks, months or years overindulging, drinking and smoking you can't hope to fix yourself in a few days. Detox diets aren't an instant cure to health and wellness. Short-term changes to your diet and lifestyle only result in short-term changes to your health and wellness. If you can't stick to the lifestyle changes you make over the long term, there's no point starting them as they won't have any serious impact upon your health.

# a) What is detoxing? (2marks)

Questions.

b) 	From the information given in the passage, what builds up toxins in the body? (2mks)	
		••

)	Give the contents of a detox kit. (2 marks)
••••	

d)	When do detox kits sell most? (1 mark)
••••	

e) In about 80 words summarize the writer's argument on whether we need to de (5marks)			
	f)	Outline the dangers of detox diets. (3marks)	
	•		
	•		
	g)	Detox diets aren't an instant cure to health and wellness. (Write in the affirmative)(1 mark)	
	•		
h)	•	We've heard a lot about the need to detox lately. (Re-write the sentence into passive) (1 mark)	
	i) I.	Explain the meaning of the following words as used in the passage. (3marks) Laxatives	

II.	Overindulging	
••••		••••••
••••		
II. 	Deficiencies	
••••		

#### 2. Read the following excerpt and answer the questions that follow.

Her dream was rudely and violently interrupted by a thunderous bang and a loud roar of laughter. She woke up with a start, jumped up to her feet and stared at the door with wide panic-stricken eyes. For a moment she could not figure out her surroundings and called out the name of her sister Taiyo. She was terrified. The door flung open and Olarinkoi staggered in. He was stone drunk. Resian stared at him **unblinkingly** as he walked towards her and she backed off terrified, squeezing herself flatly against the wall. He followed her there and got hold of her shoulders and shook her violently glaring at her with his glittering eyes.

"You silly thing," he thundered angrily. "I tell you to prepare food and you refuse to do so, eh? Today you will know who is the owner of this home. If you are still in doubt, let me tell you frankly that from today on you are my wife, hear that, eh? You are my wife. For a long time you have been sneering at me, showing how highly educated you are. Today we shall see how educated your body is! Yes, we shall see!"

He got hold of her hand and began dragging her into the other room. At first she did not understand his intention until he began unfastening her buttons with his rough trembling hands. Then the truth came, and with it, terror and panic. She tried to get away from him, but he held her **effortlessly** as he brutally continued fumbling with her dress, trying to loosen it. She screamed as loudly as she could while she pushed him away and thrashed frantically about. But that did not deter him and he totally ignored her screams holding her more firmly with his strong arms. Against her loud protest, he tore her garments and began to push her towards the bed.

Then desperately she took the last chance of self-defense and self-preservation. **Mustering** all her strength, she thrust his thumb into her mouth; sunk her teeth into the flesh like a ferocious animal and tenaciously held onto it, tugging at it fiercely like a lioness. She could feel the flesh tearing and she tasted the salt of his blood as it filled her mouth but she clung unto the thumb as Olarinkoihowled with pain.

;	a)	What are the contents of Resian's dream?	(4 marks)
•••••	••••		
	••••		
•••••	••••		
	••••		
	••••		
•••••	••••		
1	၁)	Discuss one character trait of Resian in this excerpt.(2 marks)	
	••••		
	••••		
•••••	••••		
	••••		
	c)	What has greatly changed in Olarinkoi in this excerpt compared	to his parlier conduct in
•	-)	the novel? (3 marks)	to his earlier conduct in
	••••		
	••••		
•••••	••••		
	••••		
	1/	Identify and illustrate two aspects of style in this events (4 ma	rlsc)
		Identify and illustrate two aspects of style in this excerpt. (4 ma	
•••••	••••		
	••••		
•••••	••••		
	••••		•••••

e)	Explain two themes in the excerpt. (4 marks)
••••	
••••	
••••	
••••	
••••	
f)	Explain what happens immediately after the excerpt. (3 marks)
••••	
••••	
••••	
••••	
••••	
g)	"Today we shall see how educated your body is." Rewrite in reported speech. (1 mark)
••••	
••••	
••••	
	Explain the meaning of the following expressions in the passage. (4 marks)
•••••	
Effo	ortlessly
•••••	
•••••	

(iii) Mustering	
(iv)Howled	

#### 3. Read the following oral poem and then answer the questions that follow.

Listen
My husband
In the wisdom of Lang'o
Time is not stupidity split up
Into seconds and minutes.

It does not follow Like beer in a pot That is sucked Until it is finished.

....

It does not resemble
A loaf of millet bread
Surrounded by hungry youths
From a hunt
It does not get finished
Like vegetable in the dish.

A lazy youth is rebuked
A lazy girl is slapped
A lazy wife beaten
A lazy man laughed at
Not because they waste time
But because they only destroy
And do not produce

And famine
Invades your villages
And women take their baskets
To go and beg, food,
Strangers will sleep with them.
They will have your wives
And what can you say?

_							
O		Δ	ct	ы.	$\boldsymbol{n}$	n	c
u	ч	C	31	ч	u		3

	a)	Classify the above song.	(2 marks)
	••••••		
	b)	Who is the singer?	(2 marks)
	••••••		
,			
c)	Expla	in two economic practices by the community from which the song	g is derived. (4 marks)
	•••••		
	••••••		•••••••••••••••••••••••••••••••••••••••
	•••••		

-	Identify and illustrate three aspects of style found in this s	_	(6 marks)
••••••			
••••••			
e)	Contrast the Africans and Westerners in view of: - Time		(2 marks)
••••••			
	- Concept of hard work		
••••••			
f)	Giving examples, state the dominant tone of this song.	(2 marks)	

	g) Identify the moral lesson in this song.	(2 marks)
	GRAMMAR	
a)	Answer the following questions according to the	e instructions given after each. (3marks)
	I. In the 16 <sup>th</sup> century, shake spears wrote m	nany plays. (Underline the adverbial phrase
II.	If you come to the arena, you will meet the gre	eat Isukuti dancers. (Re-write using Unless)
II. The pri	incipal advised the students to consider the conseque	nces of their behavior. (Rewrite in direct speech)
•••••		
b)	Complete each of the following with the correct brackets. (2 marks)	t phrasal verb formed from the word given in
	I.Don't worry, the police will	the matter. (look)
	II. Njoroge is not reliable. He promised to sulast minute. (back)	upport our plan butat the
c)	Use the correct form of the words in bracke	ets to fill the blanks. (2 marks)
•	I.The inmates took advantage of the	
	II.The matter should be handled	(caution)

d)	Fill in the blank with the appropriate choice between the two given in brackets. ( 3 marks)
I	.No criterion been established. (has/have)
II.	The mother had just down to rest when the baby cried. (laid/lain)
III	.The number of excelling in English books in our library increased. (has/ have)
<b>e)</b> I.	
II.	
f)	Explain the meaning of the underlined idiom. (1 mark)
	The chairperson ate the humble pie and returned to the negotiation table.
g)	Explain the difference between the following sentences.(2 marks)  i. I like you better than him.
	III. I like you better than he.

NAM	IE:
ENG FOR END	SS:
1.	COMPULSORY: IMAGINATIVE COMPOSITION (20 MARKS)
Either,	
a)	Write a story beginning with the words:
I had n	ot thought it was a big problem until I got involved
Or	
b)	Discuss the measures you would take to curb flooding in our Kenyan urban areas.
	Compulsory Set Text.
	interest is a vice that whoever engages in it is bound to fail." Using <i>Blossoms of vannah</i> , write an essay to support this assertion. (20 marks)
A	E COMPULSORY SET TEXT  DOLL'S HOUSE by Henrik Ibsen (20 marks) all, trust none." Show how this is portrayed using illustrations from the play, "A DOLL'S SE'."

NAME:	
CLASS:	ADM NO:
312/1	
GEOGRAPHY	
PAPER 1	
FORM 3	
END OF YEAR EXAM	
TIME: 2 <sup>3</sup> / <sub>4</sub> HOURS	

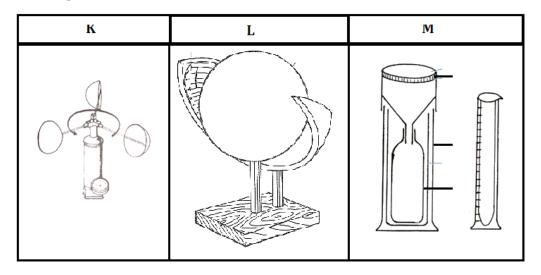
### **INSTRUCTIONS**

2.

- This paper two sections: **A** and **B**
- > Answer <u>all</u> the questions in <u>section A.</u>
- $\triangleright$  In section **B** answer **question 6** and any other **two** questions.
- > All answers must be written in the foolscaps provided.
- Candidates must answer the questions in English.

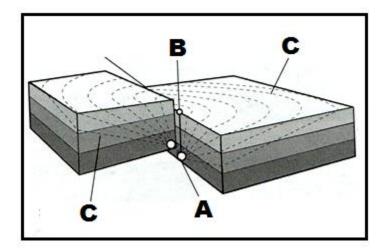
#### **SECTION A**

1. The diagram below shows some weather station instruments.



(a)	Identify the instruments marked K, L and M.	(3 marks)
(b)	Outline <b>two</b> modern methods of weather forecasting.	(2 marks
(a)	Give the <b>two</b> main movements of the earth.	(2 marks)

(b) State three reasons why the interior of the earth is very hot. (3 marks) 3. The diagram below show the occurrence of an earthquake



(a) Name the parts marked A, B and C

(3marks)

- (b) List **two** scales used to measure the magnitude of an earthquake (2 marks)
- 4. State **five** characteristics of coniferous forests.

(5 marks)

5. (a) What is soil catena?

(2 marks)

(b) State **three** factors that influence soil colour.

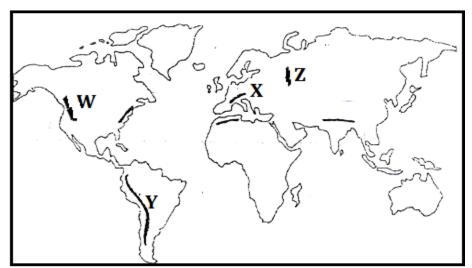
(3 marks)

# **SECTION B**

- 6. Study the map of Oyugis (1:50, 000, sheet 130/1) provided and use it to answer the following questions.
  - (a) (i) Identify **two** relief features at grid square 7342. (2 marks)
  - (ii) Measure the distance of road E 212 from its junction with road C 18 to the junction at grid square 7542. Give your answer in kilometres. (2 marks)
    - (iii) Determine the six figure grid reference of Kitweru School.(2 marks)
  - (b) (i) What is the vertical interval of the map? (1 mark)
    - (ii) Determine the bearing of a jaggery factory at grid reference 788237 from a church at grid reference 806188. (2 marks)

	(c)	(i)	Draw a square 10cm by 10cm to represent the region ea	ast of easting		
85			from northing 30 to northing 40. On the square, mark a	nd name.		
			Kodera forest.			
			Oriang' hill			
			A district boundary.			
			<ul><li>All weather road-bound surface.</li><li>A seasonal swamp</li></ul>	(6 marks)		
		(ii)	What is the scale of the sketch that you have drawn?	(1 mark)		
	(d)	(i)	Citing evidence from the map, identify <b>four</b> crops grown covered by the map.	n in the area (4 marks)		
	map.	(ii)	Describe the distribution of settlement in the area cover	red by the (5 marks)		
7.	(a)	(i)	What is a mineral?	(2 marks)		
		(ii)	Give <b>three</b> ways used to classify rocks.	(3 marks)		
	(b)	(i)	Describe how igneous rocks are formed.	(5 marks)		
	(ii)	List <b>th</b>	<b>rre</b> e examples of mechanically formed sedimentary rocks	s. (3 marks)		
	(c)	Explai	in <b>three</b> types of rock metamorphism.	(6 marks)		
	(c)	Suppo	ose you were to carry out a field study on rocks in the are	a surrounding		
	your	school				
		(i)	State <b>three</b> characteristics that you would look for while	e identifying		
			different rock types	(3marks)		
		(ii)	State <b>three</b> follow up activities for the field study.	(3marks)		
8.	(a)	(i)	Differentiate between faulting and folding.	(2 marks)		
		(ii)	Name <b>five</b> features formed as a result of faulting.	(5 marks)		

(b) The world map below shows the location of some fold mountains. Use it to answer question (a) (i)



- (i) Identify the fold mountains marked W, X, Y and Z (4marks)
- (ii) Citing relevant examples, explain how Fold Mountains were formed according to the plate tectonics theory. (6 marks)
- (c) Explain the effects of Fold Mountains on the following
  - (i) Transport. (2 marks)
  - (ii) Agriculture. (2 marks)
  - (iii) Tourism. (2 marks)
  - (iv) Mining. (2 marks)

9.	(a)	Give <b>t</b>	<b>three</b> examples of West coast deserts.		(3 marks)
	(b)	(i)	Apart from rock pedestals, name four other wind erosion in arid regions.	features for	med due to (4 marks)
		(ii)	With the aid of well labelled diagrams, description formed.	ibe how a r	ock pedestal is (7 marks)
	(c)	Expla	in <b>four</b> factors that influence the rate of wind	transport.	(8 marks)
	(d)	State	three negative influence of desert features.		(3 marks)
10.	(a)	(i)	What is a lake?		(2marks)
(ii)	Givet	<b>hree</b> pi	rocesses that lead to formation of Lakes. (3	marks)	
(b)	Descr	ibe hov	w Lake Victoria was formed	(6mar	·ks)
(c)	Expla	in <b>thre</b>	<b>e</b> factors why some Lakes in the Rift Valley in	Kenya are s (6mar	
(d)	Expla	in <b>four</b>	ways in which lakes influence the climate of t	he surroun (8mar	-

NAME:		•••••	
<b>ADM NO:</b>	CLA	ASS:	
312/2			
GEOGRAPHY			
PAPER 2			
FORM THREE			
TIME: 2 ¾ HOUR	<b>S</b>		
INSTRUCTIONS TO	<u>CANDIDATES</u>		
This paper has	s two sections: A and B.		
* Answer all the	questions in section B.		
❖ Answer questi	on 6 and any other two qu	estions from section B.	
❖ Answer ALL of	questions on the provided	foolscaps.	

# For Examiner's Use only.

Section	Questions	Max. Score	Candidate's Score
Section	Questions	TVIAM SCOTE	50010
A	1-5	25	
	6	25	
	7	25	
В	8	25	
	9	25	
	10	25	
	TOTAL	100	

# **SECTION:**

### Answer ALL the questions in this section.

1. (a) Name <b>TWO</b> places where diamond mining is done in the Republic of South Africa.(2 mks)			
(b) State THREE problems facing gold mining in South Africa.	(3 mks)		
2. (a) Name <b>TWO</b> major wheat growing counties in Kenya.	(2 mks)		
(b) Give <b>THREE</b> uses of wheat.	(3 mks)		

- 3. State **FIVE** characteristics of shifting cultivation. (5 mks)
- 4. Identify the characteristics of nomadic pastoralism. (5 mks)
- 5. (a) Name **THREE** ways in which placer mining can be done. (3 mks)
  - (b) State **TWO** problems facing Trona mining on Lake Magadi. (2 mks)

#### **SECTION:**

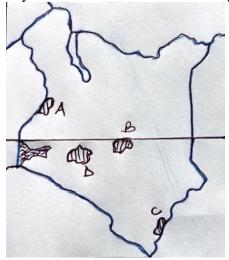
#### Answer question 6 and any other two questions from this section.

6. The table below shows the estimated exports of fruits from Kenya to the European market in '000 of tones between 2000-2004. Use it to answer the questions that follow.

Crop	2000	2001	2002	2003	2004
Oranges	50	45	42	38	30
Apples	20	25	32	28	25
Tangerines	32	35	40	38	35
Melons	22	24	36	30	34
Total	124	129	150	134	124

- (a) (i) Use a cumulative bar graph to present the date. (Use 1cm to represent 20 tonnes)(10 mks)
  - (ii) Give two disadvantages of using cumulative bar graphs in data presentation. (2 mks)
  - (b) Name five areas in Kenya where horticulture is practiced. (5 mks)
  - (c) Explain four reasons why horticultural produce is exported by air to the European markets. (8 mks)
  - 7. (a) State four characteristics of coniferous forests which favour their exploitation.(4 mks)
    - (b) Explain five factors that favour the growth of natural forests on the slopes of Mt. Kenya. (10 mks)

(c) Use the map of Kenya below to answer the following questions.



- (i) Name the forest reserves marked A, B, C and D. (4marks)
- (ii) Name **TWO** hardwoods commonly exploited in the forest reserve marked A. (2 mks)
- (d) State**FIVE** problems facing forestry in Kenya. (5 mks)
- 8. (a) (i) What is agriculture? (2 mks)
  - (ii) Identify **FOUR** characteristics of plantation farming in Kenya. (4 mks)
  - (b) Give **FOUR** physical factors that influence the growing of tea in Kenya. (4 mks)
  - (c) Explain **FOUR** problems facing small scale tea farming in Kenya. (8 mks)
  - (d) You plan to carry out a field study on a tea farm.
    - (i) Give **FIVE** reasons why you need a route map. (5mks)
    - (ii) Give **TWO**methods the class may use to gather data. (2 mks)
- 9. (a) Name **FOUR**sugarcane growing areas in Kenya. (4 mks)
  - (b) Give **FOUR** human factors that influence successful sugarcane production (4 mks)
  - (c) (i) Describe the stages involved in the processing of sugar cane at the factory.(6 mks)

(ii) Give <b>THREE</b> by-products obtained from sugarcane.	(3 mks)
(d) Your class visited a sugarcane plantation for a field study on land prepar planting.	ation and
(i) Outline <b>FOUR</b> activities that you are likely to identify.	(4 mks)
(ii) Give FOUR methods you would use to record data during the study	. (4 mks)
10. (a) (i) Define mining.	(2 mks)
(ii) Clearly state FOUR formations in which minerals occur.	(2 mks)
(b) (i) Name THREE methods of underground mining apart from shaft me	ethod.(3 mks)
(ii) Describe how shaft method is carried out.	(6 mks)
(c) Explain <b>THREE</b> benefits of the oil mining to the local community in Tu	rkana. (6 mks)

ADM NO:
HISTORY AND GOVERNMENT FORM THREE PAPER 1 END TERM THREE EXAM  TIME: 2 <sup>1</sup> / <sub>2</sub> HOURS <u>SECTION A (25 MKS)</u> Answer all questions in this section.  1. Give two limitations of using anthropology as a source of information on History and Government. (2mks)
SECTION A (25 MKS)  Answer all questions in this section.  1. Give two limitations of using anthropology as a source of information on History and Government. (2mks)
Answer all questions in this section.  1. Give two limitations of using anthropology as a source of information on History and Government. (2mks)
Government. (2mks)
2. Give <b>one</b> evidence to show the Chinese reached the East African Coast. (1mk)
3. List <b>two</b> communities that comprise the highland Nilotes. (2mks)
4. Give <b>two</b> factors which influenced Seyyied Said to develop agriculture in Zanzibar. (2mks

	5. Give the main reason why the colonial government created reserves in Kenya. (1mk)
6.	State <b>two</b> characteristics of independent churches in Kenya during the colonial period. (2mks)
	7. Identify <b>one</b> method used by trade unionists to demand for their rights during the colonial period. (1mk)
	8. Name the first person to be appointed as a prime minister in Kenya. (1mk)
	9. Give <b>two</b> functions of the principal secretary in Kenyan government. (2mks)
	10. State <b>two</b> reasons why Nabongo Mumias of Wanga collaborated with the British. (2mks)

11. Give <b>one</b> reason why corruption is being discouraged in Kenya.(1mk)
12. State <b>one</b> way in which the government of Kenya has addressed the problems of landlessness. (1mk)
13. Identify <b>two</b> political events which threatened the stability if Kenya 1975 to 1978. (2mks)
14. Give <b>one</b> reason why Africans who lived in towns formed social welfare organizations during the colonial period. (1mk)
15. What was the main ideological difference between KANU and KADU before independence in 1963? (2mks)
16. Name the President of the Supreme Court in Kenya. (1mk)

17.	Give the main reason why KANU refused to form a government after the 1961 election. (1mk)
	SECTION B (45 MARKS)  Answer any three questions from this section.
	18. a) Give <b>three</b> reasons which contributed to the development of trade between the Kenya Coast and the outside world by the 16 <sup>th</sup> Century. (3mks)
	b) What reasons led to the decline of the Portuguese rule along the Kenyan Coast during the 16 <sup>th</sup> century. (12mks)
	19. a) Give <b>five</b> reasons why Christian missionaries established mission stations in Kenya during colonial period. (5mks)
	b) Describe five factors which undermined Christian missionaries' activities in Kenya during the 16 <sup>th</sup> century. (10mks)
	20. a) Identify <b>three</b> African women who participated in the MauMau Movement. (3mks)
	b) Describe the role of African women in the struggle for Independence in Kenya. (12mks)
	<ul><li>21. a) State <b>five</b> common grievances of the political organizations in Kenya up to 1939. (5mks)</li><li>b) Explain <b>five</b> roles played by women in the Mau Mau Uprising. (10mks)</li></ul>

### **SECTION C (30MKS)**

Answer any **two** questions from this section.

- 22. a) State **five** special groups that monitor human rights. (5mks)
  - b) Explain five principles of democracy. (10mks)
- 23. a) Why are parliamentary elections held regularly in Kenya? (5mks)
  - b) Explain **five** functions of the Executive committee in a county government in Kenya. (10mks)
- 24. a) State five ways through which the constitution of Kenya promotes national unity. (5mks)
- b) Explain **five** factors which make it difficult for the correctional department in Kenya to work effectively. (10mks)

NAME:
ADM NO: CLASS:
311/2 END OF TERM THREE HISTORY AND GOVERNMENT FORM THREE PAPER TWO
TIME: 2 <sup>1</sup> / <sub>2</sub> HOURS
SECTION A (25 MKS)  Answer all questions in this section.  1. Give one contribution of archaeology to the study of History. (1mk)
2. Identify <b>two</b> activities that influenced early man to set up permanent settlement. (2mks)
3. Identify <b>one</b> area in Africa where agriculture began. (1mk)
4. State <b>two</b> disadvantages of human transport. (2mks)

5. State <b>two</b> uses of bronze in ancient Benin. (2mks)	
	••••
C Cive the main reason for the decline of Marco (1ml)	•••
6. Give the main reason for the decline of Meroe. (1mk)	••••
7. State <b>two</b> advantages of mobile phone as a means of communication. (2mks)	•••
7. State two advantages of mobile priorie as a means of communication. (2111x3)	••••
	••••
8. Give <b>two</b> uses of steam power in Europe during the 19 <sup>th</sup> Century. (2mks)	
	••••
9. State <b>one</b> function of the Lukiko in the Buganda Kingdom in the 19 <sup>th</sup> Century. (1mk)	
110. Mention <b>two</b> methods used by European powers to acquire colonies in Africa. (2m	ıks
	••••
	••••

Senegal.	privileges enjoyed by the assimilated Africans in the four French communes in (2mks)
	causes of the Ndebele war of 1893. (2mks)
	military wing of the African National Congress in South Africa. (1mk)
	person who convened the Berlin Conference. (1mk)
•••••	
15. Give <b>one</b> 6	early urban centers in pre-colonial Africa. (1mk)
	missionary chosen to represent Africans in the legislative council under the terms on shire white paper of 1923. (1mk)
17. Name the	commission mandated in matters concerning Election in Kenya. (1mk)
•••••	

#### **SECTION B**

Answer any three questions from this section.

- 18. a) State **five** factors which led to the development of early agriculture in Mesopotamia. (5mks)
  - b) Explain **five** effects of Agrarian Revolution in Europe. (10mks)
- 19. a) State **three** results of the inventions of the textile industry in Britain. (3mks)
  - b) Explain **six** factors that led to Industrialization in Japan. (12mks)
- 20. a) State **five** causes of the Maji Maji Rebellion in Tanganyika (1905 1907). (5mks)
  - b) Explain five effects of the Chimurenga war of 1896 1897. (10mks)
- 21. a) State three roles of Kwame Nkurumah in the struggle for independence in Ghana. (3mks)
- b) Explain **six** challenges faced by FRELIMO in the struggle for independence in Mozambique. (12mks)

#### **SECTION C (30 MAKS)**

Answer any two questions from this section

- 22. a) Outline **five** factors which contributed to the growth of Buganda Kingdom in the 19<sup>th</sup> Century. (5mks)
  - b) Describe the social organization of the Asante Kingdom. (10mks)
- 23. a) Name **three** leaders charged alongside Nelson Mandela in the Rivonia trial of 1964. (3mks)
  - b) Explain problems encountered by Nationalists in South Africa. (12mks)
- 24. a) State three privileges which were enjoyed by assimilitated Africans in the four communes of Senegal. (3mks)
  - b) Explain six results of the French policy of assimilation in Senegal. (12mks)

JINA		
NIA NADA DI	DADAGA	
NAMBARI	DARASA	

# MTIHANI WA MWISHO WA MUHULA WA TATU,

### 102/1

KISWAHILI KIDATO CHA TATU KARATASI YA 1 INSHA

MUDA: SAA 13/4

#### **MAAGIZO KWA WATAHINIWA**

- a) Andikainsha mbili.
- b) Insha ya **kwanza** ni ya <u>lazima.</u>
- c) Chagua insha nyingine moja kutoka kwa hizo tatu zilizobakia.
- d) Lugha ya Kiswahili sanifu itumike kujibu maswali
- e) Kila insha isipungue maneno 400.
- f) Kila insha ina alama 20.
- g) Unadhifu wa hati unachangia kueleweka rahisi.
- h) Karatasi hii ina kurasa mbili.
- i) Watahiniwa ni lazima waangalie kama kurasa zote za karatasi hii zimepigwa chapa sawasawa na kuwa Maswali yote yamo.

4	•	•	
		azın	ท๑
	14	17.11	110

Wewe uulifuzu kutoka chuo kikuu miaka mine iliyopita na shahada ya ualimu. Andika barua ya kuomba kazi ya ualimu na uiambatanishe na wasifukazi.

- 2. Usalama umekuwa changamoto nchini kwa muda sasa. Pendekeza hatua ambazo serikali yafaa kuchukua ili kuimarisha usalama.
- 3. Mstahimilivu hula mbivu
- 4. Andika insha itakayomalizika kwa maneno haya .... Niliyakumbuka maneno ya mwalimu mkuu, machozi yalinitoka njia mbilimbili. Hayawi hayawi huwa.

JINA	
DARASA	NAMBARI

### MTIHANI WA MWISHO WA MUHULA WA TATU,

102/2 KISWAHILI KIDATO CHA TATU KARATASI YA PILI LUGHA MUDA: SAA 2½

#### **MAAGIZO**

- **1.** Jibu maswali **yote**.
- 2. Andika majibu yako katika nafasi ulizoachiwa katika kijitabu hiki cha maswali.
- **3.** Karatasi hii ina kurasa **kumi**. Watahiniwa ni lazima waangalie kama kurasa zote za karatasi hii zimepigwa chapa sawasawa na kuwa maswali yote yamo.

#### 1. UFAHAMU (ALAMA 15)

Soma taarifa ifuatayo kisha ujibu maswali yanayofuata.

Kwa kipindi cha miezi kadha iliyopita tumeshuhudia vyombo vya dola vikitia makali yake kwenye upekuzi na hata kupiga doria usiku na mchana katika jitihada za kulinda nchi.

Mpango huu ni kweli umeonekana kufanya kazi hivi kwamba hata magaidi wenyewe wameshindwa kupenya katika miji na sasa kuhiari kijinga kushambulia magari ya abiria, kitendo ambacho ni cha kuonyesha uwoga. Kwa hatua hiyo, navipa vyombo vya dola kongole. Jambo ambalo lafaa kujulikana ni kwamba mikakati ya kulinda nchi haifai kuwa ni ya wakati mmoja tu, mbali inafaa kuwa ni zoezi la kila siku.

Magaidi nao huwa macho huku yakijua bayana kwamba wakati wa kulala kwa walinzi unapokuwepo, basi wanapata nafasi ya kututupia 'viazi' ukipenda grunedi.

Kama ilivyo kawaida katika mataifa mengi barani Afrika, ni bayana kwamba bado kungali na mianya mingi ambayo magaidi wa kimataifa huendelea kutumia. Dosari bado zipo. Kwa mfano, mipaka mingi ya nchi hizi huwa kama lango kuu la ugaidi wa kimataifa, kwani kuenea kwa saratani ya ufisadi halimo tu maofisini mbali pia kwenye mipaka yetu.

Kama kupata kitambulisho, pasipoti na stakabadhi zingine za kusafiri nchini Kenya ashakum si matusi ziligeuzwa 'maandazi' ya Kariakoo basi niambie ni nani hawezi kuingia na kutoka nchini bila usumbufu wowote ule bora tu anayehitaji ana hela mkononi? Kwa kuikubali hongo kuwa ufunguo wa kila kitu, Wakenya wenzangu hapo naona ni kama tumejiweka kwenye kikaango kilicho juu ya moto mkali. Hapa hakuna aliye na bahati, tajiri kwa masikini wamo kwenye mtego huu hatari.

Kwa mtindo ambao tunafuata wa kutoa ajira katika idara mbalimbali za ulinzi, inabidi serikali iwe na uangalifu sana hasa kwenye suala nzima la kuhakikisha stakabadhi wanazohitaji si ghushi.

Pasina kufanya hivyo hapo tena tunaweza kuwapata maadui wanaopenya na kujifanya walinzi wetu kumbe ni majasusi wa magaidi. Kila Mkenya anafaa kujihisi kulindwa. Miji, vijiji na hata vitongoji vinafaa kuwa na usalama wa kutosha, kwani kila Mkenya ni mlipa ushuru na hatufai kuona labda tabaka la juu likipendelewa huku mitaa ya mabanda ikiachiwa mbwa koko kama walinzi wao.

Suala lingine muhimu ni kuangaziwa upya usalama kwenye magari ya usafiri.

Juzi tulishuhudia mabasi mawili yakilipuliwa kwenye barabara ya Thika huku tukijua fika kwamba, mpango wa walinda nchi ungalipo.

La kusikitisha ni kuona kwamba, madereva na utingo wao walikamatwa na kufunguliwa mashtaka kwa kutozuia shambulizo hilo. Je, hii ni sheria gani? Dereva ataendesha gari au atachukua jukumu la walinda usalama?

Waswahili walinena kwamba ukubwa ni jaa na kwa hivyo Rais wa taifa ndiye anayefaa kubeba mzigo mzima wa usalama wetu bila kubananga wasaa. Wengine ambao wanafaa kuwajibika ni wakuu wote wa idara mbalimbali za usalama.

Usalama wako na wangu ni muhimu, elewa bayana kwamba bila usalama watalii hawawezi kuja kututembelea. Bila ya usalama maendeleo ya taifa kamwe hayawezi kupatikana, ndiposa kila jitihada sharti zifanywe ili wote waweze kuendelea kuyafurahia matunda ya uhuru wetu.

Ada ya mja kunena muungwana ni vitendo, hatufai tu kuimba wimbo wa 'linda nchi' ilhali mabasi barabarani hayana usalama. Hebu na tuuone ulinzi endelevu na hapo tutawakomoa magaidi kwa yakini.

<u>Maswali</u>	
Ipe taarifa hii anwani mwafaka.	(alama 1)
Kwa nini magaidi wanashambulia magari ya abiria?	(alama 1)
Kulingana na taarifa pamoja na maoni yako, eleza njia tatu amb	oazo zinatumiwa na magaidi
ili kufanikisha utekelezaji wa unyama wao.	(alama 3)
Ni njia gani ambazo magaidi hutumia kuingia katika nchi wana	poazimia kutekeleza uhalifu
(alama 3)	

Kwa nini sual	a la usalama kwenye magari ya usafiri muhimu?	(alama 1)
Ni njia zipi mwandishi?	zinazoweza kutumiwa kupunguza mashambulizi ya kiga (alama 2)	idi kulingana n
Eleza athari z	a utovu wa usalama.	(alama 2)
Eleza neno au Vyombo vya	mafungu ya maneno kama yalivyotumiwa katika kifungu. dola	(alama 2)
Jaa		

#### **2. UFUPISHO** (ALAMA 15)

#### Soma taarifa ifuatayo kisha ujibu maswali.

Ponografia ni tendo, maandishi, picha au mchoro unaoonyesha au kueleza uchi wa mtu au vitendo vya ngono kwa ajili ya kuchochea ashiki ya kuifanya. Mambo haya machafu huwasilishwa ana kwa ana kupitia sinema, video, magazeti, vitabu, muziki, televisheni. DVD, n.k.

Ponorafia imekuwepo tangu jadi, hasa katika nchi za magharibi. Lakini sasa limekuwa tatizo sugu. Hii ni kwa sababu imeenea ulimwenguni kote mithili ya moto katika mbuga wakati wa kiangazi. Uenezi umechangiwa na mambo kadha wa kadha. Mchango mkubwa zaidi umetokana na kuimarika kwa vyombo vya teknolojia ya habari na mawasiliano. Matumizi ya tarakilishi, mdahilishi na viungambali vya picha yamesambaza ponografia ilivyoanza. Hata hivyo, hubuniwa au kutengenezwa na makundi mbali mbali ya watu. Miongoni mwa hawa ni watu wasiojali maadili. Pili, kuna wale wenye matatizo ya kisaikolojia na kijamii. Wao hutengeneza na kueneza uchafu huu kwa lengo la ama kuvuruga maadili katika jamii au kuchukiza wanajamii waadilifu. Kundi lingine ni lile la wanaoichukulia ponografia kama nyenzo ya kutosheleza ashiki zao. Hivi sasa, kundi kubwa ni lile la wanotumia matusi haya kama njia ya kuchuma. Kwa mfano, wanamziki ambao hutumia ponografia kuvutia wateja na hivyo kuzidisha mauzo yao.

Kushamiri kwa wimbi na uonyeshaji ponografia kuna athari kubwa kwa jamii na hasa watoto. Ingawa watu wengine hudai picha hizi haziwaathiri, upo ushahidi kuonyesha kuwa wanaotazama picha za ngono hupata matatizo. Lazima ieleweke kuwa kinachoonekana na jicho au kusikika kwa sikio huathiri fikira au hisia. Picha za matusi zinachangia kwa kiasi kikubwa kuharibu akili. Badala ya kuzingatia mambo muhimu kama masomo watu huanza kutafakari mambo machafu.

Vijana wengi ni kama bendera. Hivyo basi huanza kuiga wanayoyaona na kusikia. Hili ni tatizo linalowafanya kuacha mkondo wa maadili. Kutokana na uchafu huu, watu wengi hushawishiwa kuingilia shughuli za ngono mapema kabla hawajakomaa kimwili, kiakili na kihisia. Matokeo yake ni mengi. Haya ni pamoja na ukahaba, utendaji mbaya shuleni,

mahudhurio mabaya darasani na mimba zisizotarajiwa. Vijana wengi huacha shule kabisa. Wengine nao huambukizwa magonjwa ya zinaa ambayo huwaletea mauti.

Inasemekana kuwa akili za binadamu hunata zaidi mambo yanayowasilishwa kwa picha. Si ajabu vijana huyadumisha matusi haya katika kumbukumbu zao na kuyasanya sehemu ya maisha yao. Wengi huanza kuandama tabia mbovu kama ushoga, ubasha na usagaji. Kuna wale ambao huanza kujichua. Kujichua ni hali ya mwanamke au mwanaume kumaliza haja za kimaumbile bila kufanya mapenzi na mtu mwingine. Ponografia imechangia pakubwa kuenea kwa haya.

Jambo hili limegeuza mielekeo ya vijana. Wanaiga mitindo mibaya ya mavazi yanayoanika uchi wao. Hali kadhalika, huiga lugha, ishara na miondoko inayohusiana na ngono. Yote haya yanapingana na desturi za Mwafrika. Si ajabu visa vya ubakaji vinaongezeka kila kukuchapo.

Utazamaji wa picha chafu aghalabu huandamana na maovu mengine kama unywaji pombe, matumizi ya dawa za kulevya, uvutaji sigara na utumiaji wa dawa za kuchochea uchu wa ngono. Mambo haya huwapa vijana kutazama tabia za unyama.

Jambo hatari ni kuwa kuendelea kutazama picha hizi huzifanya nishai na hisia za watu kuwa butu, yaani huondoa makali. Hata katika utu uzima, mtu atapoteza mhemko wa kawaida na kugeuzwa kuwa mtegemezi wa ponografia. Tatizo hili linaenea kwa vishindo mijini na vijijini. Ipo haja ya dharura kuikinga jamii kutokana na maenezi haya yasio na kizuizi.

Jambo la kwanza ni kuongeza ufahamu wa umma wote kuhusu uovu wa picha hizi. Kwa namna hii itawezekana kupunguza mahitaji na uuzaji wa ponografia. Tatizo hili linaenea kwa vishindo mijini na vijijini. Ipo haja ya dharura kuikinga jamii kutokana na maenezi haya yasiyo na kizuizi.

Tatizo la kuenea kwu ponografia limeendelea kuwepo kwa sababu ya udhaifu wa sheria. Kilichoko basi ni kuweka sheria za kuzuia utengenezaji wa upujufu huu. Kuambatana na haya, hatua kali zichukuliwe kwa wanaovunja sheria hizi. Hali kadhalika, ushirikiano wa karibu baina ya wadau uimarishwe katika ulimwengu mzima. Serikali na wanaohusika wakabiliwe ipasavyo. Jamii ingependa kuona michakato ya kuharamisha utengenezaji, usambazaji na utangazaji wa ponografia ikiwekwa.

Wazazi nao wasijipweteke tu bali nao wasaidie. Ni muhimu washikilie kwa sharti juhudi zao za kuwaelekeza na kuwashauri watoto kuzingatia uongofu na kukwepa picha hizi najisi. Watoto lazima waeleweshwe kuwa haifai kutazama picha au michoro michafu. Itikadi na imani za kidini na utamaduni wa Kiafrika unakataza vikali mtu kuona uchi wa mtu mwingine. Matokeo ya kuasi makatazo haya yana madhara makubwa kwa watu na jamii.

	umbe wa aya ya pili na ya tatu kwa maneno 20 – 25 (alama 6, 1 ya mtiririko
Matayaris	ho
Nakala sat	fi

Kw	wa kutumia maneno 55 – 60, eleza mambo muhimu yanayojitokeza katika aya ya r	ne ha
a tisa		
kuł	husu athari za ponografia . (alama 9, 1 ya mtiriril	ko)
Ma	atayarisho	
_		

Nakala safi			
	 	 <del></del>	

MATUMIZI YA LUGHA (ALAMA 40)	<i>(</i> <b>. . . . . .</b>
Andika sifa bainifu za / <b>d</b> / na / <b>f</b> /.	(alama 2)
andika kinyume cha sentensi hii.	(alama 2)
Iama alianika nguo zilizofuliwa na Kitwana.	(/
andika neno 'kuja' katika hali ya kuamuru.	(alama 1)
arama neno maja mama ya mamara.	(didiiid 1)
Veka shadda katika neno 'nta'.	(alama 1)
veka shadda katika heno ika .	(didilid 1)

5.	Yakinisha sentensi ifuatayo. Wanafunzi wasipopita mtihani huo mwalimu hatalaumiwa.	(alama 2)
6.	Kwa kutolea mifano, eleza miundo mitatu ya silabi za Kiswahili.	(alama 3)
 7.	Andika kwa udogo.	(alama 2)
	Chaka la Samba halilali paka.	(4.4 2)
8.	Changanua sentensi ifuatayo kwa kutumia jedwali. Kiongozi aliyeng'olewa mamlakani amekufa.	(alama 4)

9.	Mzizi ni nini? Toa mfano.	(alama 2)
10.	Bainisha aina za virai vilivyopigiwa mstari.	(alama 2)
	Mjadala <u>huo mzuri</u> uliisha <u>usiku wa manane</u> .	
11.	Tofautisha sentensi hizi:	(alama 2)
a)	Ningeondoka sasa ningefika mapema.	
b)	Ningaliondoka sasa ningalifika mapema.	
12.	Toa maana mbili za sentensi hii.	(alama 2)
	Aliletewa ng'ombe na mtoto wake.	
13.	Tunga sentensi moja kubainisha.	(alama 2)
	Kivumishi cha pekee cha kusisitiza.	

14. a)	Nyambua vitenzi vifuatavyo katika kauli zilizo kwenye mabano. la (fanyia)	(alama 2)
b)	suka (tendata)	
15.	Fafanua aina ya hali zilizotumika katika sentensi hizi. Mumo akacheka, akafurahia na akalala.	(alama 3)
b)	Mtoto wa Maria hulia kila mara.	
c)	Mwalimu aandika ubaoni.	
16. a)	Tumia neno 'karibu' katika sentensi kama: Kihusishi	(alama 2)
b)	Kihisishi	

	Onana	
18.	Bainisha yambwa katika sentensi hii.	alama
	Simu aliyonunuliwa Ali na mjombake imepotea.	
19.	Tumia kivumishi kionyeshi cha mbali pamoja na nomino katika ngeli ya I–	- <b>I.</b> (ala
_	TGT 71 71 717 (17 12 12 12)	
4.	ISIMU JAMII (ALAMA 10)	
		alama
<b>4.</b> a)		alama
		alama
		alama
		alama

b) Fafanua sifa za sajili ya matanga.	(alama 5)

102/3

**KISWAHILI** 

Karatasi ya 3

**FASIHI** 

Octoba

Muda: Saa 2 ½

# MTIHANI WA MWISHO WA MWAKA

#### KIDATO CHA TATU

# **Maagizo**

- (a) Jibu maswali **manne** pekee.
- (b)Swali la kwanza ni la lazima.
- (c)Maswali hayo mengine **matatu** yachaguliwe kutoka sehemu **tatu** zilizobaki..
- (d)Usijibu maswali **mawili** kutoka **sehemu moja**.
- (e)Majibu yote lazima yaandikwe kwa lugha ya Kiswahili.
- (f)Karatasi hii ina kurasa 7 zilizopigwa chapa.
- (g)Watahiniwa ni lazima wahakikishe kwamba kurasa zote za karatasi hii zimepigwa chapa sawasawa na kuwa maswali yote yamo.

#### SEHEMU A: RIWAYA

# CHOZI LA HERI( ASSUMPTA K. MATEI)

- 1. "Wewe ni mfuata mvua..."
- a) Eleza muktadha wa dondoo hili. ( alama 4)
- b) Taja na ufafanue sifa tano za msemezwa. ( alama 10)
- c) Je, ukabila umeathiri vipi jamii inayosawiriwa katika Riwaya hii? ( alama 6)

#### **SEHEMU B: TAMTHILIA**

### TAMTHILIA YA KIGOGO (PAULINE KEA)

- 2. "Ukitaka kula asali,kaa na nyuki."
- a) Eleza muktadha wa dondoo hili. ( alama 4)
- b) Bainisha mbinu ilivyotumika katika dondoo hili. (Alama 2)
- c)Eleza jinsi wahusika wafuatao walivyofaidika kwa kukaa na nyuki. (Alama 14)
- i) Chopi
- ii) Kenga
- iii) Ngurumo
- iv) Mamapima

au

3. Tamthilia ya Kigogo ni kioo cha uhalisia wa maisha ya jamii nyingi za Kiafrika. Thibitisha.

#### SEHEMU D: USHAIRI

#### 4 . SHAIRI LA KWANZA

# Soma shairi hili kisha ujibu maswali.

Jukwani naingia, huku hapa pasokota, Kwa uchungu ninalia,hii tumbo nitaikata,

Msiba mejiletea, nimekila kiso takata,

We tumbo nitakupani, uwe umetosheka?

Wazee hata vijana, wote umewasubua,

Huruma nao hauna, heshima kawakosea,

Ukambani na Sagana, hata mbwa wararua,

We tumbo nitakupani, uwe umetosheka?

Wahasibu ofisini,kibwebwe mejifunga,

Miaka mingi vitabuni,ili wasikose unga,

Nadhari wanadhamini,hesabu wanazirenga, We tumbo nitakupani, uwe umetosheka?

Wapenzi wa kiholela,pia wanakuogopa, Baada yao kulala, wana wao wanatupa, Wakihitaji chakula,wanachokora mapipa, We tumbo nitakupani,uwe umetosheka?

Wafugaji hata nao,kama dawa wakwamini, Hawajali jiranio,wamesusia amani, Wanaiba ng'ombe wao,na kuzua kisirani, We tumbo nitakupani,uwe umetosheka?

Nayo mizozo ya maji, kaonekana kwa mara, Hiyo nayo ni dibaji,sababu sio harara, Njaa wahepe wenyeji, huo ndio mkarara, We tumbo nitakupani,uwe umetosheka?

Ningeweza kukuuza,ingekuwa siku njema, Tena kwa bei ya meza,sokoni nimesimama, Wala tena singewaza,kuhusu wali na sima, We tumbo nitakupani,uwe umetosheka?

Hatima umefikika,naenda zangu nikale, Mate yanidondoka,kwa mnukio wa wale, Naomba kwenda kukaa,wala sio nikalale, We tumbo nitakupani,uwe umetosheka?

#### Maswali

- i Lipe anwani mwafaka shairi hili. (Alama 2)
- ii Shairi hili ni la aina gani? Toa sababu. (Alama 2)
- iii Huku ukitolea mifano mwafaka, taja arudhi zilizotumiwa katika ubeti wa tatu. (Alama 4)
- iv Andika ubeti wa nne kwa lugha nathari. (Alama 4)
- v Thibitisha kuwepo kwa idhini ya ushairi. (Alama 2)
- vi Taja madhila anayoelezea mtunzi wa shairi hili yaletwayo na tumbo. (Alama 4)
- vii Elezea maana ya maneno yafuatayo. (Alama 2)
- (a) Dibaji
- (b) Harara

au

#### 5. SHAIRI LA PILI

# Soma shairi lifuatalo kwa makini kisha ujibu maswali.

Niokoa Muokozi, uniondolee mashaka.

Kuyatukua siwezi, mjayo nimedhikika

Nimekithiri simanzi, ni katika kuudhika

Mja wako nasumbuka, nipate niyatakayo.

Mja wako nasumbuka, nataka kwao afua

Nirehemu kwa haraka, nami nipate pumua

Naomba hisikitika, na mikono hiinua

Mtenda ndiwe Moliwa, nipate niyatakayo.

Mtenda ndiwe Moliwa, we ndiwe Mola wa anga

Mazito kuyaondoa, pamoja na kuyatenga

Ukauepusha ukiwa, ya pingu zilonifunga Nikundulia muwanga, nipate niyatakayo

Muwanga nikundulia, nipate toka kizani Na huzuni n'ondolea, itoke mwangu moyoni Mambo mema niegheshea, maovu nisitamani. Nitendea we Manani, nipate niyatakayo.

Igeuze yangu nia, dhaifu unipe mema Nili katika dunia, kwa afia na uzima Moliwa nitimizia, yatimize yawe mema Nifurahike mtima, nipate niyatakayo.

- (a) Shairi hili ni la bahari gani? Eleza. (alama 2)
- (b) Taja madhumuni ya shairi hili. (alama 3)
- (c) Eleza muundo wa shairi hili. (alama 4)
- (d) Thibitisha namna uhuru wa kishairi unaibuka katika shairi. (alama 4)
- (e) Andika ubeti wa pili katika lugha sufufu. (alama 4)
- (f) Toa maana ya:
  - (i) Nimedhikika
  - (ii) Muwanga nikundulia
  - (iii) Nifurahike mtima (alama 3)

6.

Ewe kilizi

Ulozowea kujificha
Nyuma ya mama kujikinga, dhidi ya milio
Ya radi lo juu mbinguni
Jua kesho ni siku ya siku
Siku ya kujua mbichi na mbivu
Kutofautisha jogoo na vipora,

ngariba taposhika, chake kijembe

Ndipo utakapojua bayani
Ukoo wetu si wa kunguru
Ikiwa hu tayari
Kisu kikidhihaki
Sithubutu kamwe, wanjani kuingia
Sije kuniaibisha miye, amiyo na akraba nzima!

- a) Nani anaimba wimbo huu? Thibitisha. (alama 2)
- b) Wimbo huu ni wa aina gani? (alama 2)
- c) fafanua sifa tano za nyimbo za aina hii. ( alama 5)
- d) Nyimbo za aina hii zina majukumu gani katika jamii? (alama 5)
- e) Thibitisha mbinu tatu za kifasihi zilizotumiwa katika utungo huu. ( alama 6)

au

7. "Dhima ya pekee ya hadithi ni kuburudisha." Jadili. ( alama 20)

NAME:	
ADM NO:	
<ol> <li>Use tables of square roots and reciprocals tables to evaluate the problem below.</li> </ol>	luate to 3 decimal
$\frac{10}{\sqrt{0.625}} + \frac{4}{\sqrt{164}}$	(3marks)
<ol> <li>The heights of two similar pails are 12cm and 8cm. hold 2 litres.</li> </ol>	
What is the capacity of the smaller pail?	(3 marks)

3.Find the equa	tion of the pe	erpendicular	bisector o	of the line	AB who	ere A is (3,
9) and B is (7,	5) giving yo	ur answer in	the form	ax + by +	c=0.	(3 marks)

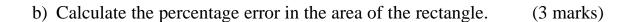
4. Mr. Ochuodho who deals in electronics sells a radio to a customer at Kshs. 1,440 after giving him a discount of 10% but finds that he still makes a 20% profit. Find the profit Mr. Ochuodho would make if he does not give a discount. (3mks)

5. Simplify the expression

$$\frac{9t^2 - 25a^2}{6t^2 + 19at + 15a^2}$$
 (3marks)

6. Solve for x in 
$$\left(\frac{4}{9}\right)^x \times (8)^{1-x} = 486$$
 (4marks)

- 7. The length and width of a rectangle are stated as 18.5cm and 12.4cm respectively. Both measurements are given to the nearest 0.1cm.
  - a) Determine the lower and upper limit of each measurement. (1 mark)

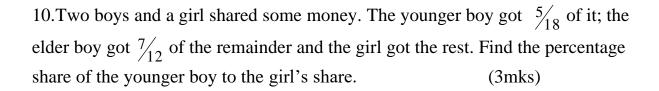


8. In a regular polygon, each interior angle is  $x^o$  and each exterior angle is  $\left(\frac{x-36}{3}\right)^o$ 

(i) Find angle 
$$X^o$$
 (1mk)

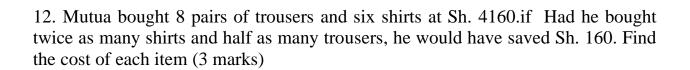
(ii) Find the number of sides of the polygon (2mks)

9. Find the integral values of x which satisfy the following inequalities; 2x + 3 > 5x - 3 > -8 (3mks)



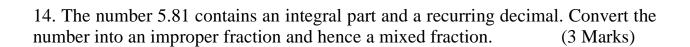
11. Simplify the expression below leaving your answer in rationalized surd form of  $a + b\sqrt{c}$ 

$$\frac{1 + \tan 120^{o}}{1 + \cos 330^{o}}$$
 (3mks)



13.A solid block in the shape of a cylinder has a height of 14cm and weighs 22kg. If it is made of material of density 5g/cm<sup>3</sup>, find the radius of the cylinder.

Take 
$$\pi = \frac{22}{7}$$
 (3mks)



15. Using a pair of compasses and a ruler only construct a triangle ABC such that AB= 4cm, BC = 6cm and angle ABC =  $135^{\circ}$ . (3mks)

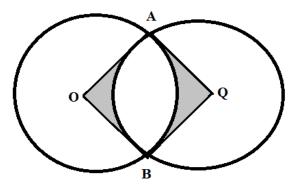
16. The curved surface area of a cylindrical container is 1980cm2. If the radius of the container is 21cm, calculate to one decimal place the capacity of the container in litres (3 mks)

(Take 
$$\pi = \frac{22}{7}$$
).

# **SECTION II ANSWER ANY FIVE QUESTIONS**

17(a)	Train A leaves a station 45 minutes before train B. Both trains travel in the same direction and their speeds are 36km/h and 48km/h respectively.		l in the same
	i)	How long will it take train B to catch up with train A?	(3 marks)
	ii)	How far from the start were the two trains when they met.	(2 marks)
b)	this ve	accelerated from rest to a velocity of 10m/s in 10 seconds. It telocity for 20 seconds and then came to a stop in 5 seconds. Finitial acceleration.	
	ii) The	distance travelled.	(2 marks)
	iii) The	average velocity.	(1 mark)

18. Two circles with centres O and Q and radii 8cm intersect at points A and B as shown



below.

Given that the distance between O and Q is 12cm and that the line AB meets OQ at X, find:

(a) the length of the chord AB.

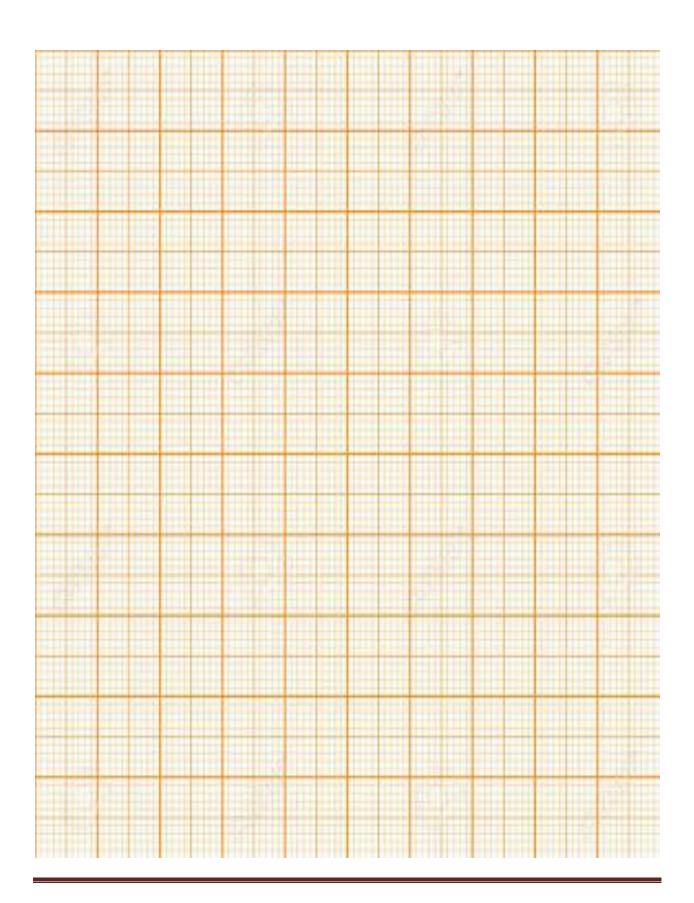
(3marks)

(b) the reflex angle AOB.

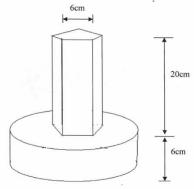
(3marks)

19.A triangle whose vertices are A(1,4) B(2,1) and C(5,2) is given the following transformations.

- i) A reflection along the line y = x to  $A^1B^1C^1$
- ii)  $A^1B^1C^1$  is given a rotation of a positive quarter turn about the origin  $A^{11}B^{11}C^{11}$
- iii)  $A^{11}B^{11}C^{11}$  is given an enlargement of linear scale factor -2 about (1,2) to  $A^{111}B^{111}C^{111}$
- a) Using the grid provided, plot the triangle ABC and its image  $A^1B^1C^1$  (3mks)
- b) Locate the image  $A^{11}B^{11}C^{11}$  from the grid hence state its co-ordinates. (3mks)
- c) Find the co-ordinates of  $A^{111}B^{111}C^{111}$  hence plot it on the grid (4mks)



20. The figure below shows a prism whose cross section is a regular pentagon of side 6cm and whose length is 20cm joined to a cylinder of radius 14cm and height 6cm to form a the model of a solid



(a) Calculate the cross section area of the pentagon

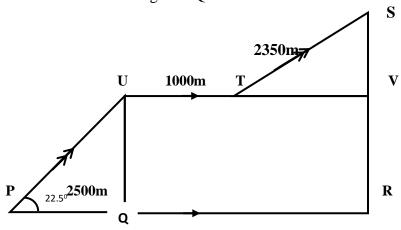
(3mks)

(b) Calculate the total volume of the solid

(4mks)

(c) The model represents a pillar of total height 5.2m, calculate the volume of the actua	ol solid in m <sup>3</sup> (3mks)
21. An expedition has 5 sections AB, BC, CD, DE and EA. B is 200m o	on a bearing of 050 <sup>0</sup>
from A. C is 500m from B. The bearing of B from C is 300°. D is 400° from C. E is 250m on a bearing 025° from D.	m on a bearing 230°
(a) Sketch the route	(1 Mark)
(b) Use the scale of 1cm to 50m to draw the accurate diagram representing the route	. (5 Marks)
	) SCALE
	O SCALE  (2 Marks)

22. In the figure below PQ = 2500m, U T= 1000m and TS = 2350m. PQR is a straight line. Parallel to UT and angle  $UPQ = 22.5^{\circ}$ .



Calculate to the nearest meter

- (a) (i) UQ (2marks)
  - (ii) T V (2marks)

(iii) V S (2marks)

(iv) P	U	(2marks)
(b) Find	the perimeter of the figure.	(2marks)
21% t	ular lawn is surrounded by a path of uniform width of 7m. The a hat of the lawn.  lculate the radius of the lawn.	area of the path is  (4 mks)
(b)	Given further that the path surrounding the lawn is fenced on barbed wire on posts at intervals of 10 metres and 11 metres or outer sides respectively.  Calculate the total number of posts required for the fence.	

(c)	Calculate the total cost of the posts if one post costs sh 105.	(2 mks)
-----	---	---------

24. A surveyor recorded the measurements of a field book using XY=400m as the base line as shown below.

	Y	
To E 200	320	
150	210	To D
To F 250	170	150 To C
	50	225 To B
	X	100 To A

a) Use a scale of 1cm to represent 50m to draw the map of the field. (5mks)

b) Find the area of the field in hectares	(5mks)

NA	ME:	••••••
AD	OM NO:	••••••
EN	ND OF TERM 3 MATHEMATICS PAPER 2	
TI	ME: 2½ HOURS	
<u>SE</u>	CTION I (50 MARKS)	
An	swer ALL questions in the spaces provided.	
1.	Evaluate using mathematical tables only.	(3 marks
	_6.373log4.948	
	$\sqrt{0.004636}$	
	$\sqrt{0.004636}$	

Determine the inverse of the matrix  $\begin{pmatrix} 4 & 3 \\ 5 & -2 \end{pmatrix}$ . Hence find the coordinates of the point at which the two lines 4x - 18 = -3y and 5x - 2y = 11intersect. (4 marks)

**3.** Solve the equation.

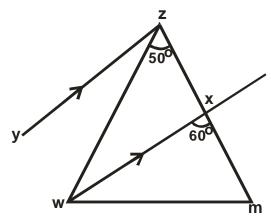
$$5^{2x+1} - 3(5^{x+1}) + 10 = 0$$

(4 marks)

4. Solve for x in the equation  $\cos x = \sin (3x - 30)$ . Hence determine the value of  $\tan x$  leaving your answer in surd form. (3 marks)

5. In the figure below, YZ is parallel to WX. Angle WZX =  $50^{\circ}$  and angle WXM =  $60^{\circ}$ .

Determine the size of angle YZW. (2 marks)



- **6.** Kaula has two types of coffee, costing Ksh.120 and Ksh.200 respectively. He mixed them in the ratio 6: 5 by weight.
- a) Determine to the nearest shilling the cost of one kilogramme of the mixture. (2 marks)

b) Find the percentage profit on the cost price if the mixture was sold at Ksh. 250. (Give your answer in 2 d.p). (2 marks)

7. Rationalise the denominator and simplify leaving your answer in the form  $\sqrt{a} + b$ . (3 marks)

$$\frac{\sqrt{2} + 2\sqrt{5}}{\sqrt{5} - \sqrt{2}}$$

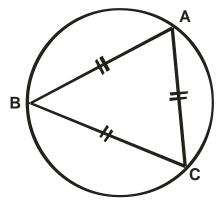
**8.** Use squares, square roots and reciprocals tables only to evaluate;

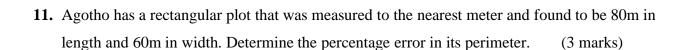
$$\frac{3}{\sqrt{42.15}} + \frac{4}{(3.152)^2} \tag{4 marks}$$

9. Make h the subject of the formula in

$$m = \frac{p}{\sqrt{h} + k^2}$$
 (3 marks)

10. The diagram below shows an equilateral triangle ABC inscribed in a circle of radius 9cm.Calculate the length of the sides of the triangle (2 d.p) (2 marks)





12. A circle of radius 3cm has its centre at 
$$(3, -2)$$
. Express the equation of the circle in the form  $x^2 + y^2 + mx + ny + c = 0$ . Where m, n and c are constants. (3 marks)

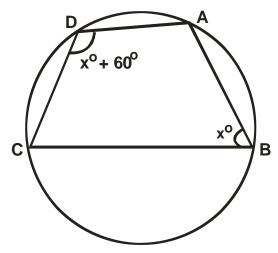
13. Wambua invested Sh. 6400 at 15% per annum compound interest for 3 years. Muinde invested twice that amount at 12½% per annum simple interest for the same period of time. Find whose investment earned more interest and by how much. (4 Marks)

**14.** a) Expand 
$$\left(1 - \frac{1}{2}x\right)^5$$
 (1 mark)

b) Use the expansion upto  $x^3$  in (a) above to evaluate  $(0.98)^5$  correct to 4 d.p (2 marks)

**15.** The figure below shows a quadrilateral ABCD which is cyclic. Solve for x.

(2 marks)



**16.** Solve for x in the equation  $\log (x-1) = \log 12 - \log (x-2)$  (3 Marks)

# **SECTION II (50 MARKS)**

Answer only FIVE questions from this section in the spaces provided.

17. Mr. Kobe is a civil servant who earns a monthly salary of Ksh.21200. He has a house allowance of Ksh.12000 per month, other taxable allowances are commuter Ksh.1100, medical allowance Ksh.2000. He is entitled to a personal relief of Ksh.1240 per month. Using the income rates below, solve the questions that follow.

Income in Ksh. per month	Rates in Ksh per sh 20
1 - 8,400	2
8401 – 18,000	3
18001 - 30,000	4
30001 – 36,000	5
36001 – 48,000	6
Above 48,000	7

Determine;

a) i) His monthly taxable income.

(2 marks)

ii) Net tax (PAYEE)

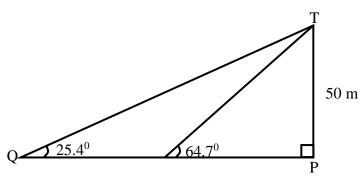
(5 marks)

b)	In addition to the PAYEE, the following deductions were made. Ksh.250 for NHIF, Ksh.120 service charges,he repays a loan at sh.4500 and contributes towards savings at sh.1800 every			
	month. Calculate his net salary per month.	(3 marks)		
18	a) From whole numbers 1 to 10, a number is selected at random, find the pro	nd the much chility that		
10.	the number selected is a prime or a multiple of 3.	(2 marks)		
	b) A tetrahedron is thrown and a coin is tossed.			
	i) List down all the possible events in the probability space.	(1 mark)		
	ii) Find the probability of getting at least 2 and a head.	(2 marks)		

	c) i) A bag contains 6 white marbles and some brown ones. If the probability of picki			
	brown	marble is 0.6, find the number of marbles in the bag.	(3 marks)	
	::) True mendales			
		s are then picked, one at a time from the bag in c(i) above,	-	
	Find the p	probability that the marbles picked are of different colours	. (2 marks)	
1	9 Kennedy hough	ht three cows and twenty-five goats spending a total of Sh	75000. If he had	
_	_	ws and thirty three goats, he would have saved Sh. 5400. I		
	_	at a profit of 40% per cow and 50% per goat.	termedy later sold	
		at a profit of 40% per cow and 30% per goat.		
	Determine;	history has been also as in a l	(5 Mayles)	
	(a) the cost at w	hich he bought each animal.	(5 Marks)	

(	b)	the total amount of mone	v Kenned	v received after	selling all	I the animals.	(5 N	Marks)
•	$\sim$ ,	the total annount of mone	, 110111100	, received area	Delling and	tile allillais.	(0 1	in its

**20.** The figure below shows the position of a boat Q which is observed sailing directly towards the pier P at the base of a vertical cliff PT. The angle of elevation of the top of the cliff from Q is 25.4°. After 14 seconds the boat is at point R, and the angle for elevation of T is now 64.7°.

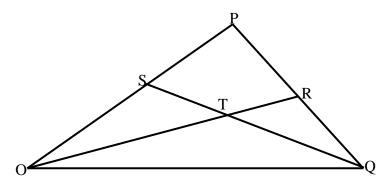


If the cliff is 50m high, calculate

(a) The distance PQ (2 Marks)

(b) The distance QR	(4 Marks)
(c) The speed of the boat in km/h	(4 Marks)

21.



In the figure above, OPQ is a triangle in which QS =  $\frac{3}{4}$ QP and PR: RQ = 2:1

Line OR and SQ meet at T.

(a) Given that  $\overrightarrow{QP} = \underline{p}$  and  $\overrightarrow{QQ} = \underline{q}$ , express the following vectors in terms of  $\underline{p}$  and  $\underline{q}$ .

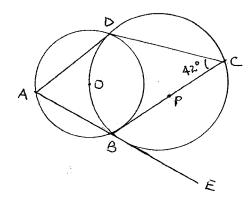
(i) PQ (1 Mark)

(ii) OR (2 Marks)

(iii) SQ (1 Mark)

(b) You are further given that ST = mSQ and OT = nOR. Determine the values of m and n. (6 marks)

		and B	are con	nnected by the equation. $A=kB^n$ Where k a	nd n are
constants					
The table b					
A. 1.5	1.95	2.51	3.20	4.50	
B. 1.59	2.51	3.98	6.31	11.5	(2.15.1.)
(a) Find a	iinear e	equation	i conne	cting A and B	(2 Marks)
(b) On the in (a) above			rovided	l draw a suitable straight line graph to represe	nt the relation
(c) Use yo	our grap	h to est	imate tl	he values of k and n in to one decimal place.	(3 Marks)
<b>23.</b> (a)					



Giving reasons, determine the size of:

a) Angle CBD

(2 marks)

b) Angle ODB

(2 marks)

c) Angle BAD

(2 marks)

d) Angle ABC

(2 marks)

e) Angle ODA

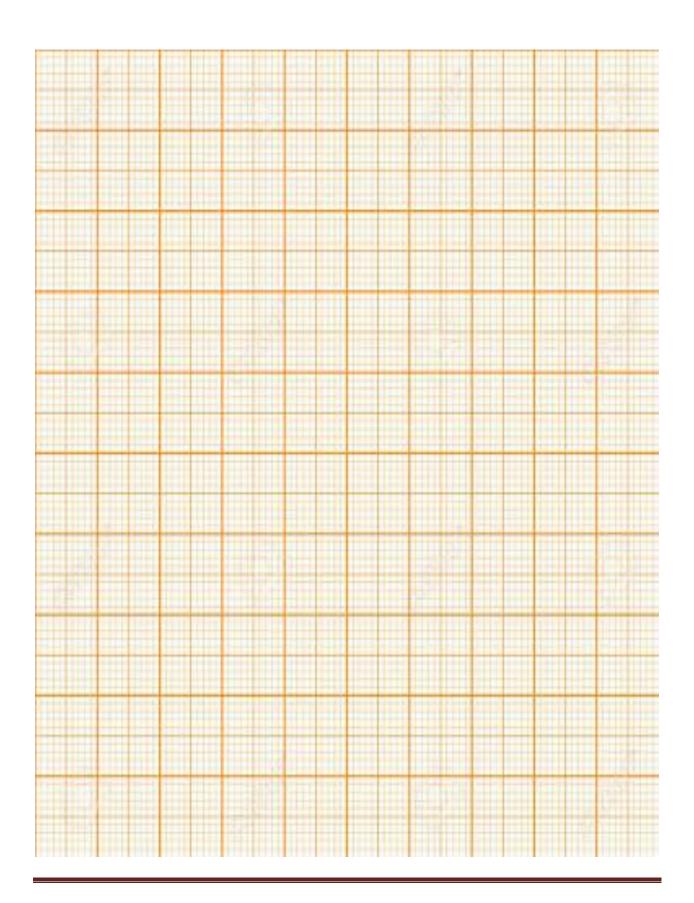
(2 marks)

24. (a) Draw the graph of the function below on the grid provided

$$y = 2x^2 - 7x - 2$$
 for the values of  $-1 \le X \le 6$ 

(5 marks)

- (b) From your graph determine the roots of the function.  $2x^2 7x 2 = 0$ . (1 marks)
- (c) By drawing a suitable graph of function y = 2x 7 on the same axis, solve the simultaneous equations  $y = 2x^2 7x 2$  and y = 2x 7. (4 marks)

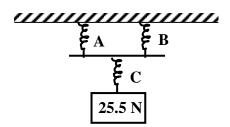


	NAME:
	CLASS: ADM NO:
	PHYSCIS PAPER 1 FORM 3 – TERM 3 END OF YEAR EXAM TIME : 2 HOURS
	SECTION A (25MARKS)
	INSTRUCTIONS.
	Answer all the questions in the spaces provided.
	<ol> <li>State the reading shown on the scale of a vernier calipers in the diagram below. (1mk)</li> </ol>
2.	State the reason why electricity transmission cables are left sagging between the pylons. (1mk)
••••	
••••	
	3. The reading on a mercury barometer at the foot of a hill. Density of air = $1.25 \text{kg/m}^3$ , density of mercury = $1.36 \times 10^4 \text{kg/m}^3$ . (3mks)

4.	The figure below shows the	displacement time graph for the	motion of an object.
	Displacement(m)		
		Time (s)	
Sketch	the velocity time graph for t	the object.	(2mks)
5.	State two factors that would	d raise the boiling point of water.	(2mks)
•••••			
6. the bu	The level of water in a bure rette, what would be its new	tte is 25cm <sup>3</sup> . 40 drops each of volu reading. (2mks)	ume 0.05cm³ are added t

		e is replaced	w the efficier I with a doub	le-walled m	netal surfac	e.	(2mks)	_	
	8. distan	A body mo	ving at 50m/	s decelerate	es uniforml	y at 2m/s² ι	until it come	s to rest. Wh	nat
9.	Sketch	ı a graph of p	oressure vers	sus volume t	for an ideal	gas at cons	stant temper	rature. (3mk	s)

10. Three identical springs A, B, and C are used to support 25.5N weight as shown below. The weight of the horizontal bar is 2.5N, determine the extension on each spring given that 6N causes an extension of 2cm. (2mks)



- 11. State the property of Freon that makes it useful as a refrigerant liquid. (1mk)
- 12. The diagram below shows a spinning ball as it moves through air in the direction shown.

Direction of spinning ball movement

Draw the streamlines of air around the ball and show the direction in which it spins such that an upward force is created. (2mks)

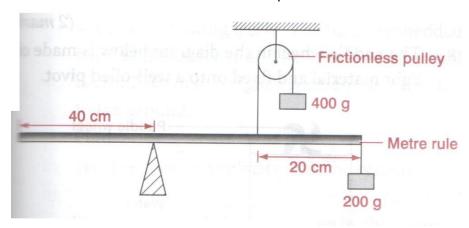
13. State the law of conservation of energy.	(1mk)
	•••••••
SECTION B (55 MARKS)	
14. State one renewable source of energy.	(1mk)
h. An electric grape lifts a load of 2000kg through a vertical distance of 2m in 6 co	ocondo
b. An electric crane lifts a load of 2000kg through a vertical distance of 3m in 6 so Determine:	econus.
· The cold decay	(2 1 -)
i. The work done.	(2mks)
ii. The power developed by the crane.	(2mks)
"" The officiency of the council of a control by a color of a control	(2 1 -)
iii. The efficiency of the crane if operated by an electric meter rated 12.5kw.	(2mks)

	c. A pulley system has two pulleys on the lower block and one pulley on the upper block. Sketch the system showing the direction of the robe, the load and the effort. (3mks)
	15. Define the term friction. (1mk)
	b. A spherical steel ball is released from rest just above the surface of a column of oil which is in a long wide tube.
	i.State three forces affecting the movement of the ball as it falls in the oil. (3mks)
i	i.Explain which of the forces in b (i) above varies as the ball falls. (1mk)
ii	i.What is the net force acting on the ball that is moving at terminal velocity? (1mk)

v.Sketch a graph to show the variation	on of resultant force on the ball with velocity from the
moment it was released.	(2mks)

	c. State the principle of movements.	(1mk)
••••••		•••••••••
•••••		

i. The diagram below shows a uniform metre rule in equilibrium under the forces shown.



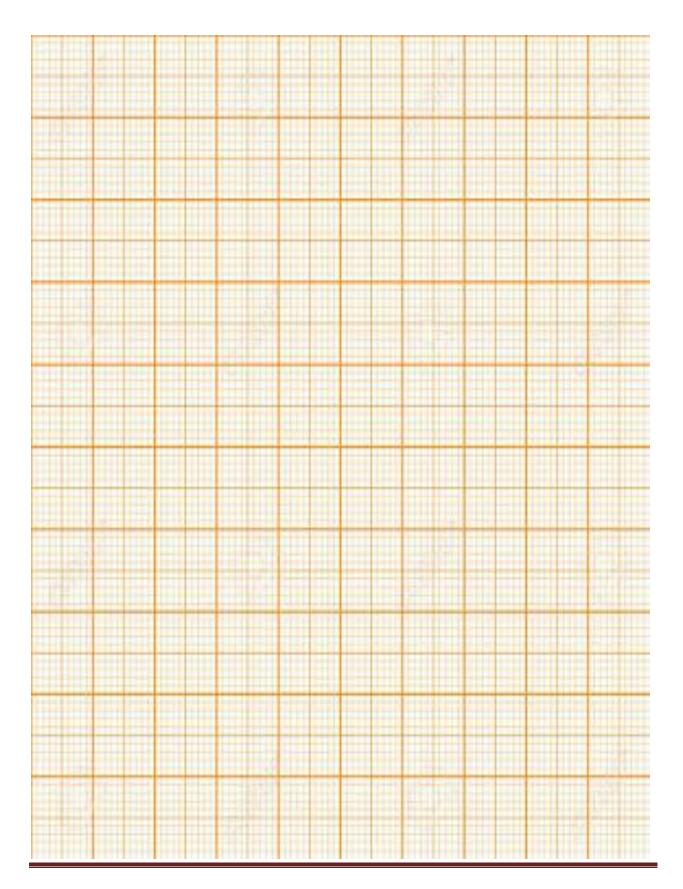
ii.Determine the weight of the metre rule.

(3mks)

16.	A 4kg mass is receiving heat at a rate of 100KJ per minute and its temperature at
various	times recorded as follows.

Temp (°C)	230	250	270	270	270	270	310	350	390	390	390
Time	0	1	2	6	9	13	18	23	28	29	30
t (min)											

a. Plot a graph of temper	ature against time.		(5mks)
b. Use you graph to deter i.Specific heat capacity of the se			(3mks)
ii.Specific heat capacity in its liq	uid state.	(3mks)	
<b>.</b>	(1mk)		
v.Its boiling point	(1mk)		
v.Specific latent heat of fusion.	(2mks)		



Page 194 of 218
Prefer Calling Sir Obiero Amos @ 0706 851 439 for the Marking Schemes

	17.	In an experiment to der	monstrate Brownia	an motion, smok	e was put in a smoke	cell and
	i.	ed under a microscope. State and explain the ob	servation made		(2mks)	
					•	
		•••••	•••••	•••••	•••••	
	••••••					
	•••••		••••••	••••••	•••••••••••	••••••
	ii.	Give a reason for using s	small particles like	smoke particles	in the experiment.	(1mk)
		_	•	·		
			•••••	•••••		
			1			(4 1)
III.	wnat	bservation would be ma	de if the tempera	ture of the smoke	e cell is raised?	(1mk)
	•••••		••••••	••••••	•••••••••••	••••••
	•••••	•••••		•••••		
		il drop of average diame		s out into a circul	lar patch of diamete	r 75cm
		surface of water in a tro Ite the thickness of the m	_		(3mks)	
'	.Calcul	ite the thickness of the h	iolecule.		(311183)	
ii	.State a	ny two sources of error i	n b (i) above.		(2mks)	
		,			·····	
		•••••	•••••	•••••		

	At 30°C, the pressure of a gas is 100cmHg. At what temperature fall by 20cm of mercury. Give the temperature in °C.	would the pressure of (3mks)
force on	e of area 4.0cm <sup>2</sup> at the bottom of a tank 5m deep is closed with a the cork when the tank is filled with water. (g=10m/s <sup>2</sup> , density o /m <sup>3</sup> ).(4mks)	
is occup	A measuring cylinder of height 25cm is filled to a height at 15cm vied by kerosene. Determine the pressure acting on its base. (Den of kerosene = 0.8g/cm³ atmospheric pressure = 103,000 Pa)	

NAME:	••••••	••••••••••	• • • • • • • • • • • • • • • • • • • •
ADM:	CLASS:		•••••
232/2 PHYSICS DAD	FR 2 (THEORY) FORM 3 TIME:	2 HRS	

#### 2 THI DICO TALER 2 (THEORI) FORM 5 THME. 2 HRS

# **END OF TERM 3 EXAMS**

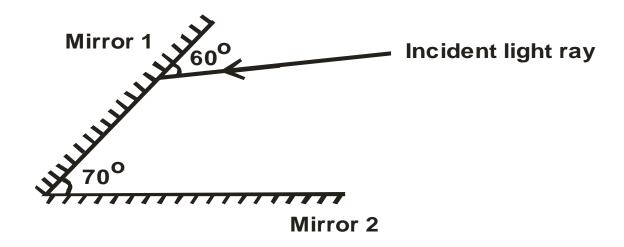
### **INSTRUCTIONS TO CANDIDATES**

- 1. Mathematical tables and silent electronic calculators **may be** used.
- 2. The following constants may be used where necessary
- Plancks constant, h =  $6.63 \times 10^{-34} \text{ JS}$
- Charge of an electron,  $e = 1.6 \times 10^{-19} \text{ C}$
- 1 electron volt (1eV) =  $1.6 \times 10^{-19} \text{ J}$

### **SECTION A (25 MARKS)**

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

1. The figure below shows a ray of light incident on the surface of one plane mirror.

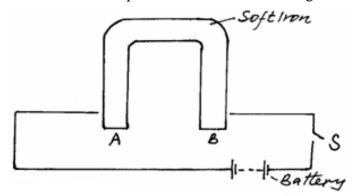


Sketch the path of the ray on the diagram after striking mirror 2 indicating all the angles. (2 marks)

	Explain why eight dry cells of 1.5V each arranged in series to give a total	
car	nnot be used to start a car just like a lead-acid accumulator.	(2 marks)
•••		•••••
•••		•••••
••••	•••••••••••••••••••••••••••••••••••••••	•••••••
•••		•••••
3.	When a candle flame is brought near the cap of a charged electroscope, t	he electroscope
dis	charges. Explain this observation.	(2 marks)
•••		•••••
•••		•••••
•••	•••••••••••••••••••••••••••••••••••••••	••••••
4.	The figure below shows an experiment set up used to illustrate dispersion of	white light.
	White Glass prism	
	light	
	Y	
	N Screen	
a)	Identify the colours X and Y.	(1 mark)
	X	
	Υ	
b)	What physical property changes for the colours when they enter the prism?	(1 mark)
•••		•••••

5.	Diffraction is not a common phenomenon in light. Explain why.	(1 mark)
	•••••••••••••••••••••••••••••••••••••••	
6. con	Apart from temperature, state any <b>one</b> other factor which affects the iductor.	resistance of a metallic (1 mark)
7.	a) Define the term capacitor.	(1 mark)
	Two plates of a parallel-plate capacitor are 0.6 mm apart and each has the potential difference between the plates is 100 V, calculate the acitor.	
-	ake ( E $_{0}$ =8.85 * 10 <sup>-12</sup> *Fm <sup>-1</sup> )	(3mks)
8. pas	A current of 0.8A flows through an electric circuit. Determine the ses a point in the circuit in 6 minutes.	quantity of charge that (2 marks)

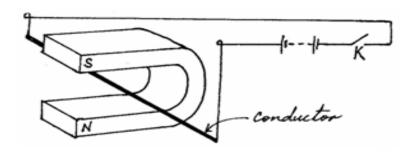
9. The figure below shows an incomplete circuit of an electromagnet.



Complete the circuit by drawing the windings on the two arms of the core so that A and B are both north poles when the switch S is closed. Indicate the direction of the current of the windings drawn. (1 mark)

10. A girl standing 120m away from a tall building claps her hands and hears an echo 0.75s later. Determine the speed of sound in air at this place. (3 marks)

11. The figure below shows a thick copper conductor placed between two poles of a strong magnet. The wire is free to swing in between the poles.



(a) the switch K i	Indicate on the same diagram the direction in which the conductors closed.	swings when (1 mark)
(b) the conductor	State one change that can be made on the set up so that the direction is reversed.	(1 mark)
	et up in figure 4 below can be used in a laboratory for lifting and rele	
	Magnetic material core	
	Steel ball	
i) State the	material which is suitable for use in the core.	(1mark)
•••••••		••••••••••
i) If a slight	ly larger ball is to be lifted, it is necessary to make an electromagne	et stronger.
Name <b>tw</b>	o ways of increasing the strength of the magnet.	(2 marks)
•••••••		

# **SECTION B (55 MARKS)**

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

13. a) Sound is a mechanical longitudinal wave. Explain why sound is classified as;			
i) A mechanical wave.	(1 mark)		
•••••••••••••••••••••••••••••••••••••••	•••••		
ii) A longitudinal waya	(1 montr)		
ii) A longitudinal wave.	(1 mark)		
	••••••••		
••••••	•••••		
b) The diagram below shows a set up that was used to demonstrate that, s	sound is a mechanical		
wave.			
Rubber bang  Electric bell  Bell jar  To vacuum pump			
i) State the function of the vacuum pump.	(1 mark)		
	•••••		
•••••••••••••••••••••••••••••••••••••••			

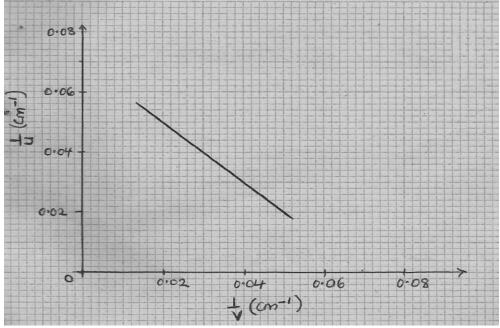
ii) When the switch is closed, state and explain what happens as the air is o	continuously drawn
from the bell jar.	(3 marks)
	•••••
	•••••
	•••••
	•••••
iii) State <b>two</b> possible reasons why it is not possible to reduce the sound experiment.	(2 marks)
•••••••••••••••••••••••••••••••••••••••	•••••
	••••••
c) A fishing boat uses ultrasound of frequency 6.0×10 <sup>4</sup> Hz to detect fish d	irectly below. Two
echoes of the ultrasound are received, one after 0.09 seconds coming from the	e shoal of fish and
the other after 0.12 seconds coming from the sea bed. The sea bed is 84m betransceiver.	elow the ultrasound
i) State <b>two</b> reasons why ultrasound is preferred.	(2 marks)
	•••••
•••••••••••••••••••••••••••••••••••••••	•••••
•••••••••••••••••••••••••••••••••••••••	•••••
•••••••••••••••••••••••••••••••••••••••	•••••
ii) Calculate the speed of the ultrasound waves in water.	(2 marks)

14.	14. a) The figure below shows a method of magnetization used in making magnets.				
	Steel bar				
i)	Name the method.	(1 mark)			
••••	•••••••••••••••••••••••••••••••••••••••	••••••			
ii)	Identify the polarities A and B of the magnet produced.	(2 marks)			
	A				
	В				
iii)	Apart from this method, state any other method used in magnetization.				
••••					
b)	In demagnetization by electrical method:				
i)	State the type of current used.	(1 mark)			
••••		••••••			
ii)	Explain your answer in (i) above.	(2 marks)			
••••		•••••			
••••					

a)	Explain why when demagnetizing a magnet, the magnet should be held in the East-Wes
	ction. (2mrks)
15.	(a) Define the following terms (3 mks)
i)	Principal focus
••••	
••••	
ii)	Centre of curvature
••••	•••••••••••••••••••••••••••••••••••••••
••••	
	Focal plane
••••	•••••••••••••••••••••••••••••••••••••••
••••	•••••••••••••••••••••••••••••••••••••••
••••	•••••••••••••••••••••••••••••••••••••••

(b) ) An object is placed 18 cm in front of a concave mirror of focal length 12 cm. Determine the position and nature of the image formed (3mks)

(c) The graph below shows variation of  $\frac{I}{u}$  (cm<sup>-1</sup>) with  $\frac{I}{v}$  (cm<sup>-1</sup>) for an object placed infront of a concave mirror



From the graph,

(i) Determine the focal of the mirror.

(2mks)

(11) Determine the image distance when the object is 20cm from the mirror.	(2mks)
16. (a) The figure below shows how a student set up a circuit using 3 identica Z each rated "12V, 2.0A"	ıl bulbs X, Y and
(i) When operating normally, calculate the resistance of one of the bulbs	(2 Marks)
(1) When operating normany, calculate the resistance of one of the builds	(2 Marks)
(ii) Calculate the effective resistance of the three bulbs.	(2 Marks)
(iii) What will be reading of the ammeter?	(2 Marks)

(iv) Draw a circuit diagram showing the three bulbs connected in such a way that work at the same brightness especially if they are not identical.	at they would all (2 Marks)
(b) When the switch S is kept open in the circuit shown below the voltmeter rethe switch	
is closed, the readings drops to 21.3V and the current through the resistor	18 U.5A.
(i) What is the e.m.f of the cell?	(2 Marks)
(ii) What the terminal voltage of the cell?	(1 Mark)
(iii) Calculate the value of R.	(3 Marks)

	a graph of displacen	_	for a transverse		frequency of (4marks)	50Hz of
b)	Distinguish electro	_			(2ma	,
A pulse-echo sounder is used by fishing boat to locate a shoal of fish in water. The ounder sends sound of frequency 21KHz and wavelength of 7.5cm. if the echo is received after 4.4seconds, determine how far the shoal of fish is from the base of the boat. (4marks)						

NAME:	••••••
ADMNO:	CLASS:

# **END TERM EXAMS**

#### PHYSICS PAPER 3 PRACTICAL FORM -3 TIME: 2 1/2 HOURS

# **INSTRUCTIONS TO CANDIDATES**

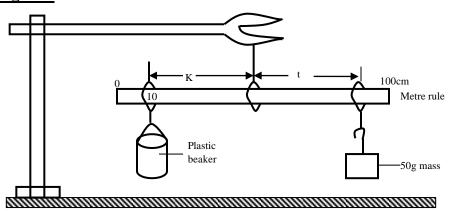
- 1. You are provided with the following apparatus:
  - ✓ A metre rule
  - ✓ A 250 ml plastic beaker
  - ✓ 4 pieces of cotton thread each 30cm long
  - ✓ A piece of cellotape
  - ✓ 100ml measuring cylinder
  - ✓ Complete stand
  - ✓ A 50g mass
  - ✓ Water in a beaker

#### **Proceed**

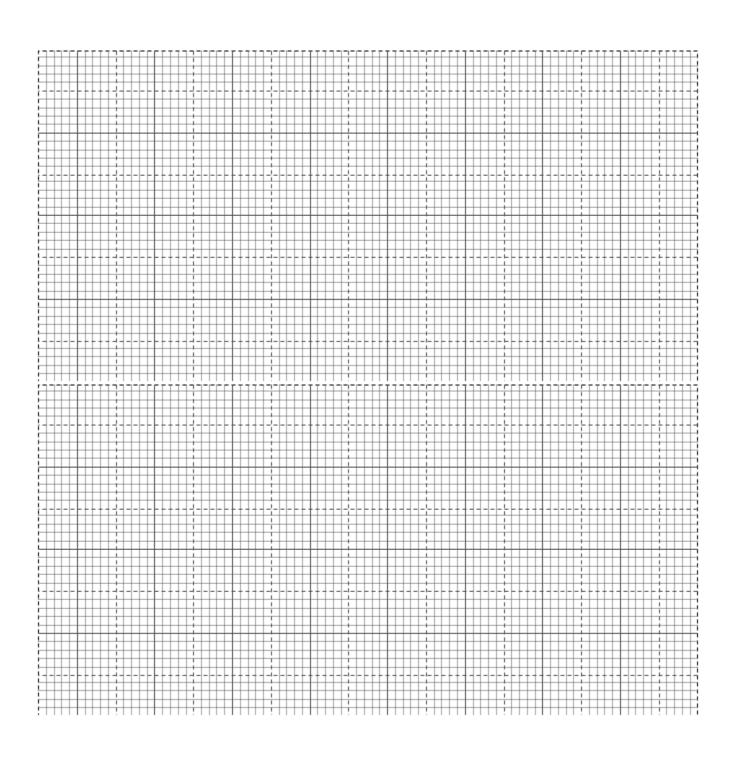
- (a) Suspend the metre rule using the thread and ensure it balances horizontally (the point of balance should remain unchanged throughout the experiment.
- (b) Suspend the empty plastic beaker at the 10cm mark and hang the 50g mass on the other side of the metre rule.
  - Move the  $50\mathrm{g}$  mass along the metre rule until the set-up balances horizontally as shown in the figure

below.

#### Figure 1



	nain at this p nder, measu beaker until v.	osition throws the metre	oughout th of water a rule balan	and pour i	it into the ontally aga	-
(Use the cellotape to fix the - The 50g mass should rem d) Using the measuring cylin Adjust the position of the distance K in table 1 below e)Repeat the procedure (d) ab	ne position of nain at this p nder, measu beaker until	osition throws the metre	oughout th of water a rule balan	and pour i	it into the ontally aga	in. Record
- The 50g mass should rem  d) Using the measuring cylin Adjust the position of the distance K in table 1 below e)Repeat the procedure (d) ab	nain at this p nder, measu beaker until v.	osition throws the metre	oughout th of water a rule balan	and pour i	it into the ontally aga	in. Record
d) Using the measuring cylin Adjust the position of the distance K in table 1 below e) Repeat the procedure (d) ab	nder, measu beaker until v.	re 20cm <sup>3</sup> of the metre	of water a	and pour i	it into the ontally aga	in. Record
Adjust the position of the distance K in table 1 below e) Repeat the procedure (d) ab	beaker until v.	the metre	rule balan	ces horizo	ontally aga	in. Record
distance K in table 1 belowe)	V.					
e)Repeat the procedure (d) ab		other value	of V show	wn.	(	(6 Marks)
	pove for the	other value	of V show	wn.	(	(6 Marks)
	ove for the	other value	of V show	wn.	(	(6 Marks)
					`	
Volume, V (cm <sup>3</sup> ) 0	20	40	60	80	100	120
Distance, K, (cm)						
1 (200-1)						
$\frac{1}{k}$ (cm <sup>-1</sup> )						
		I		L		

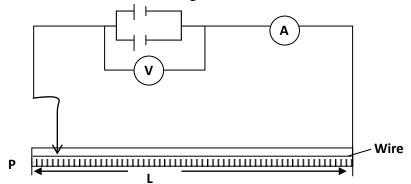


(g) I	Determine the slope, S, of the graph.	(2 Marks)
(h) <b>(</b>	Given that $V = 1000 \left(\frac{50t}{dk}\right) - \frac{1000m}{d}$	
	Use your graph to determine the values of	
(	(i) d =	(3 marks)
•		• • • • • • • • • • • • • • • • • • • •
_		
•		• • • • • • • • • • • • • • • • • • • •
•	••••••••••••••••••••••••••••••••	• • • • • • • • • • • • • • • • • • • •
		• • • • • • • • • • • • • • • • • • • •
(	(ii) m =	(3 marks)
•		• • • • • • • • • • • • • • • • • • • •
		• • • • • • • • • • • • • • • • • • • •
•		•••••
•		• • • • • • • • • • • • • • • • • • • •
OH	ESTION 2	
a)	You require;	
•	Two dry cells (size D)	
•	A two cell holder	
•	A voltmeter	
•	An ammeter	
•	Mounted resistance wire on a mm	
	scale	
•	7 connecting wires (3 with crocodile	
	clops)	
•	Vernier calipers (to be shared among	

five students

# Proceed as follows

i) Set the circuit as shown in figure below

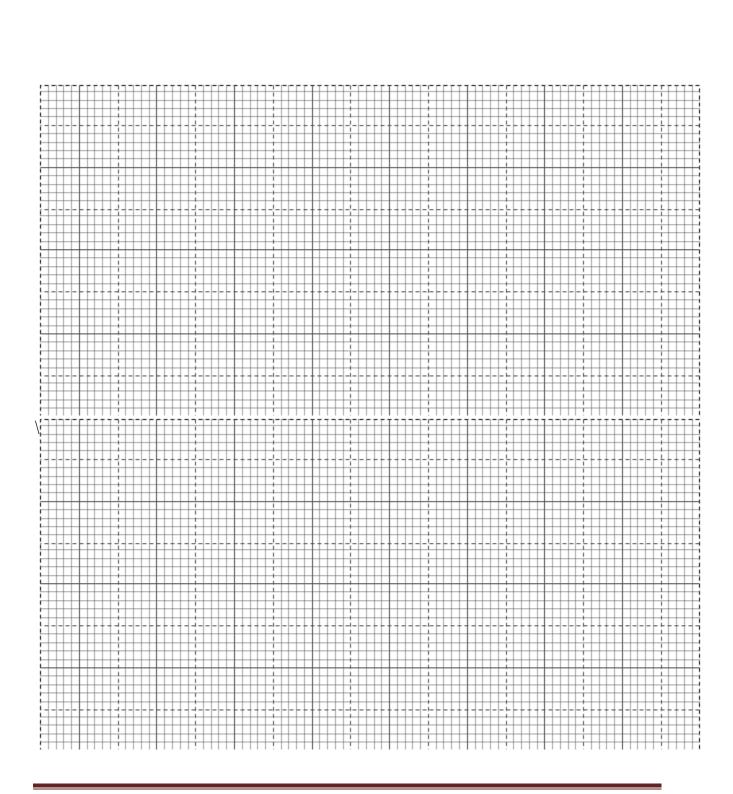


ii) With the crocodile clip at P (i.e. L= 100cm) take the voltmeter reading V and the ammeter reading I. Repeat the procedure for values of L=90, 70, 50, 40 and 20cm respectively

Record your reading in table below

L (cm)	L(m)	V	I	V/I	
100					
90					
70					
50					
40					
20					

- iii) a) With the same apparatus design a circuit to determine the e.m.f of the two cells (1mk)
  - b) Measure the e.m.f of the cells \_\_\_\_\_ (volts) (1mk)



Plot a graph V/I (ohms) against L (metres)

V)	Calculate the slope S of the graph	(3mks)
vi)	Measure the diameter d of the mounted resistance wire	(1mk)
	d=metres	
vii)	Given that $S = \pi d^2 /4h$ . Calculate the value of h	(2mks)



Page **217** of **218** 

# ACTED SET BOOKS VIDEOS.

Details Inscribed in each. Delivered Via Telegram.
WhatsApp/Sms/Call Sir Obiero Amos

0706 851 439



