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# FOR MARKING SCHEME CALL SIR ABRAHAM <u>0729125181</u>

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# MARKING SCHEME WONT BE FREE

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### Kenya Certificate of Secondary Education

NAME		ADM	•••
DATE	SIGN	TARGET	•••
443/1 AGRICULTURE Paper 1			
Time: 2Hours			

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

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

#### FOR EXAMINERS USE ONLY

SECTION	QUESTINS	MAX SCORE	CANDIDATES SCORE
A	1-16	30	
В	17-20	20	
C	21	20	
	22	20	
	23	20	
TOTAL		90	

## **SECTION A (30MARKS)**

## Answer all the questions in this section in the space provided.

• • •	1.	Give f	Four advantages of intensive farming.	(2mks)
	2.	State 1	four benefits of agroforestry to a maize crop.	(2mks)
• • • •	• • • • •			
• • •	• • • • •			
	3.	Name	the plant part used for vegetative propagation of each of the following plan	
		(i)	Sisal	(½ mk)
		(ii)	Pyrethrum	(½ mk)
		(iii)	Sweet potatoes	(½ mk)
		(iv)	Sugar cane	(½ mk)
	4.	State	four cultural ways of controlling couch grass	(2mks)

5. Name three sources of underground water	(1½mks)
6. State three causes of blossom end of rot in tomatoes	(1½mks)
7. Give three qualities of a good green manuring plant	(1½mks)
8. State four reasons for practicing minimum tillage.	(2mks)
9. Name four farm records that should be kept by a poultry farmer.	(2mks)
10. Give three ways in which pastures are classified	(1½mks)

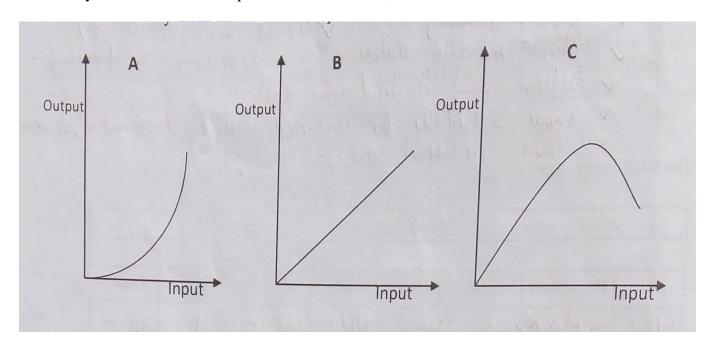
	• • • • • • • • • • • • • • • • • • • •
	• • • • • • • • • • • • • • • • • • • •
11. State four ways in which land reforms can be implemented in Kenya.	(2mks)
	• • • • • • • • • • • • • • • • • • • •
12. State four factors that determine the stage at which a crop is harvested.	(2mks)
13. Give four beneficial effects of weeds to a farmer.	(2mks)
	•••••
14. Give four advantages of practicing crop rotation.	(2mks)
	• • • • • • • • • • • • • • • • • • • •
	•••••
15. Name four methods of controlling pests.	(2mks)

16. Distinguish between intensive hedgerow and border planting forms of agroforestry (2mk)

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

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

17. The following illustrations show different production function curves in agricultural economics. Study them and answer the questions which follows;



1. Identify the production function curves labeled A, B and C

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· • • • • • • • • • • • • • • • • • • •				(
		ived from the production functio		(1mk)
3. (i)		e three production functions curv		
(ii)	Give a reason for	r your answer in (i) above		(1mk)
8. The tabl		e population and gross domestic		A and B
	Country	Gross Domestic product (million Ksh)	Population (million)	
	A	1800	36	
	В	1200	15	
(a) Ca		ita income for each country show		(2mks)
(a) Ca				(2mks)
	alculate the per cap		your working	(2mks)
(b) W	Alculate the per cap	pita income for each country show	your working	

	(d) How can agriculture increase the gross domestic product of a country	(1mk)
	19. The diagram below illustrate investigation on a property of soil using soil sa and L.	mples labeled J, K
		Ory oil ater level
	W C	ater ater trough ofton wool
1.	Name the property of soil being investigated (	lmk)
 2.	What is the relationship between the soil property above and the size of soil part (1mk)	icles?
3.	Which soil sample would be suitable for growing paddy rice?	lmk)
 <b>4.</b> 	Give a reason for your answer in (c) above	lmk)
•••	20. The following is a list of nutrients: copper, calcium, nitrogen, molybodenum	
	carbon, sulphur, iron and magnesium. Which of the above nutrients are;	
	(a) Macro – nutrients	(1mk)

	• • • • •			
•••••	(b)	Micro	– nutrient	(1mk)
•••••				
	(c)	Fertil	izer elements	(1mk)
	(d)	Limin	g elements	(1mk)
	(e)	Prima	ry macro nutrients	(1mk)
•••••	• • • • •	•••••		
			SECTION C	
	An	swer a	ny two questions in this section in the spaces provided after	question.
21.				
	(a)	Expla	in five functions of a live fence in a farm.	(5mks)
	(b)	Descri	be various risks and uncertainties in crop farming	(10mks)
	(c)	State f	ive functions of young farmers clubs in Kenya	(5mks)
22.				
	(a)	Explai	in five factors that should be considered in farm planning	(10mks)
	(b)	Explai	in the different ways in which each of the following environme	ntal factors influence
		crop p	roduction.	
		(i)	Wind	(5mks)
		(ii)	Temperature	(5mks)
23.				
	(a)	Outlin	e the information contained in a purchase order.	(5mks)
	(b)	Descri	be the harvesting of tea	(7mks)
	(c)	Explai	in the cultural methods of controlling soil erosion	(8mks)



### Kenya Certificate of Secondary Education

NAME		ADM	
<b>DATE</b>	SIGN	TARGET	• • • • • •
	443/2		
	AGRICULTURE		
	PAPER 2 (THEORY)		
	TIME: 2 HOURS		

#### INSTRUCTIONS TO CANDIDATES

- 1. Write your name and index number in the spaces provided above.
- 2. This paper has **THREE** sections: A, B and C
- 3. Answer ALL the questions in section A and B and any TWO questions in section C
- 4. ALL answers **MUST** be written in the spaces provided.
- 5. Do not remove any pages from this booklet.

#### **FOR EXAMINER'S USE ONLY**

	Questions	Maximum score	Candidate's score
A	01-17	30 marks	
В	18-22	20 marks	
С	23-25	40 marks	
		Total score	

This paper consists of 8 printed pages.

Candidates should check to ensure that all pages are printed as indicated and no questions are missing

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## **SECTION A (30 MARKS)**

## Answer ALL questions in this section.

State one use of the following tools in the form	
State one use of the following tools in the form	
	(2 marks)
a) Spoke shave	
b) Pipe wrench	
c) Stock and die	
d) Wire strainer	
Name one exotic dairy cattle breed in Kenya which produces milk with:	
a) Highest butter fat content.	(1 mark)
<b>b</b> ) Lowest butter fat content.	(1 mark)
Name two dual purpose breeds of dairy cattle reared in Kenya.	(1 mark)
	b) Pipe wrench c) Stock and die d) Wire strainer  Name one exotic dairy cattle breed in Kenya which produces milk with: a) Highest butter fat content.  b) Lowest butter fat content.

5.	Name two sources of energy concentrates.	(1 mark)
6.	Using Pearson's square method, compute a 100kg ration with 20% DCP from	om sunflower seed cake
	which contains 10% DCP and simsim seed containing 60% DCP.	(4 marks)
7.	Name three livestock diseases transmitted by ectoparasites.	(1½marks)
7.	Name three livestock diseases transmitted by ectoparasites.	(1½marks)
7.	Name three livestock diseases transmitted by ectoparasites.	(1½marks)
7.	Name three livestock diseases transmitted by ectoparasites.	(1½marks)
7.		
	Name an intermediate host for the following internal parasites.	
	Name an intermediate host for the following internal parasites.	
	Name an intermediate host for the following internal parasites.	

9.	Give any two reasons for docking in sheep rearing.	(1 mark)
10.	State two functions of the queen in a beehive.	(1 mark)
11	State three maintenance practices carried out on a piggery unit.	(1½ marks)
11.	state tince maintenance practices carried out on a piggery unit.	(1/2 marks)
12.	State four disadvantages of an electrical fence.	(2 marks)
13.	State four advantages of using a spray race for controlling parasites.	(2 marks)
14.	Give four disadvantages of artificial insemination in livestock production.	(2 marks)

15. Give any four structural requirements that a calf pen should possess.	(2 marks)
16. List two signs of infertility in cows.	(1 mark)
17. Give two methods of introducing vaccines to livestock.  SECTION B (20 marks)  Answer ALL questions in this section.	(2 marks)
18. Study the diagram  below and answer the state of the	ne questions that follow.
(i) Name the parts labelled A, B, C, D and E in the diagram.	(2½ marks)

A		
В		
C		
D 		
· · · · · ·		
E		
6	ii) State the function of each part	(21/2 montes)
<b>(</b> 1	ii) State the function of each part.  A	(2½ marks)
		(2½ marks)
		(2½ marks)
	A	(2½ marks)
	A	(2½ marks)
	A B	(2½ marks)
(1	A B	(2½ marks)
	A  B  C	(2½ marks)

. Give two reasons why a jersey breed cattle is adapted to arid and semi arid area	s. (2marks)
• The diagram below represents an aerial view of a farm structure. Study it carefu questions that follow.	ılly and answer th
Y Z O C	<u>. o</u>
a) Identify the structure.	(1 mark)
<b>b</b> ) Name the parts labeled X, Y and Z.	(3 marks)

21. Give two reasons for carrying out hoof trimming.	(1 mark)
<b>22.</b> Theillustration below is a farm structure.	
K Q Z	
a) Identify the structure.	(1 mark)
<ul><li>b) Name the parts labeled K, Q and Z.</li><li>marks)</li><li>K</li></ul>	(3
Q	
Z	

c)	Give four maintenance practices carried out on the above structure.	(2 marks)
••••		
••••		
· • • • • • •		
SE	CTION C (40 MARKS)	
An	swer ANY TWO questions in this section	
3. a)	Give five functions of vitamins in livestock production.	(5
ma	arks)	
b)	Describe the importance of colostrum to young animals within the first week of	oirth. ( <b>10</b>
	marks)	
c)	Outline five advantages of embryo transplant technology in cattle management.	(5
	marks)	
<b>l.</b> a)	Mention four methods of water harvesting.	(4
ma	arks)	
<b>b</b> )	Describe the different types of micro catchments used in water conservation.	(10 marks)
c)	Explain the importance of micro catchments.	(6
	marks)	
5. a)	Outline ten factors to consider when selecting gilt for breeding stock.	(10 marks)
b)	Explain the economic importance of parasites to livestock animals.	(10 marks)
• • • • •		
•••••		
• • • • •		• • • • • • • • • • • • • • • • • • • •



Kenya Certificate of Secondary Education

231/3 BIOLOGY PAPER 3 (PRACTICAL) TIME: 134 HRS

## **CONFIDENTIAL INSTRUCTIONS**

These instructions are to enable the Head of Institution and the teacher in charge of Biology to make adequate preparations for 231/3 Biology Practical.

No one else should have access to this information either directly or indirectly.

#### Each candidate requires the following

- 20mls of solution L
- 4 test tubes in a test tube rack.
- Benedict's solution
- Iodine solution
- 1% copper sulphate
- Sodium hydroxide (10%)

- DCPIP
- Source of heat/water bath
- Test tube holder
- Visking tubing 8 cm long
- Thread/string 2 pieces 10cm long each.
- 50 mls beaker
- Distilled water
- 10mls measuring cylinder

**<u>NB</u>** Solution L contains glucose and ascorbic acid dissolved in water



#### Kenya Certificate of Secondary Education

NAME		ADM		ADM	
DATE	SIGN	TARGET	••••		
231/1					
BIOLOGY					
PAPER 1					
(THEORY)					
2 HOURS					

## Kenya Certificate of Secondary Education

#### INSTRUCTIONS TO CANDIDATES

- (iii) Write your name and Index Number in the spaces provided above.
- (iv) Sign and write date of examination in the spaces provided above.
- (v) Answer **ALL** questions in the spaces provided.
- (vi) All workings MUST be clearly shown where necessary.

#### FOR EXAMINERS USE ONLY.

Question	Maximum Score	Candidates Score
1-28	80	

This paper consists of 7 Printed pages.

Candidates should check the question paper to ensure that all the papers are printed as indicated and no questions are missing

23 | Page

(c)		me the reagent used for testing presence of Starch	(3 marks)
	h)	Reducing sugars	
	i) 	Vitamin c	
(d)		ate the processes which occur in each of the following organelles.  Chloroplast	(2 marks)
	 (e) 	Mitochondrion	
	(f)	Ribosomes	
	X4	student observed a specimen through a light microscope. He used the objective lense 0. If he indicated the magnification of the image as x 400, what was the eye - piece your working).	magnification? (3 marks)
 (f)	Sta	ate the function of the following in mammalian trachea.	(3 marks)

•••	(a) Rings of cartilage	
	(b) Mucus	
	(c) Cilia	
 (g)	(a) What do you understand by the term biological control?	(1 mark)
	(b) Explain why all the energy produced by producers does not flow to the tertiary co (2marks)	onsumers.
 (h)	Name any three forces that maintain the transpiration stream	
 (i)	Give the form in which the following gases are transported in blood.  (v) Oxygen	(3 marks)
	(vi)Carbon (IV) oxide	

•••	(vii)	Carbon (II) oxide	
 (j) 		the main group of organisms which comprise the Kingdom Monera.	( 1mark)
	(b) State a	ny three ways in which the organisms named in 8 (a) above affect human lives	. (3 <b>marks</b> )
	(viii)	State the main characteristics of Monera which distinguish it from all other kin	
 (k) 		s in which the xylem tissue is adapted to carry out its function. (3)	marks)
  (I)		necessary for an athlete to breathe heavily after running? (2	marks)
  (m	)State ways	s in which the following diseases can be prevented id and amoebic dysentery (2 n	

5. Malaria	(2 marks)
(n) What are the three distinguishing features of phylum Arthropoda?	(3marks)
(ii) That are the times distinguishing remains of physical ration operations.	
(o) (a) Name the main product of the dark stage of photosynthesis.	( 1 <b>mark</b> )
(b) What is the role of chlorophyll during photosynthesis	(2mark)
(p) Name three mechanisms that prevent self-pollination in flowers that have both male a parts.	
(q) State three applications of anaerobic respiration.	(3 marks)

(r) What is the significance of highly folded inner membrane of a mitochondrion?	(2 marks)
(s) Why is it necessary for blood from the gut to pass through the liver before joining	
circulation?	(2 marks)
(t) A person's urine tested positive for reducing sugars.	•••••
5. Name the type of sugar present in the urine.	(1mark)
6. Name the gland and the hormone which failed to control the above condition Gland	n. (2marks)
Hormone	
7. Which disease was the person suffering from?	( 1 <b>mark</b> )
(u) State two roles played by the process of reproduction.	(2marks)
(v) What is the habitat of the following plants?	

a. Xerophytes	
b. Hydrophytes	
c. Halophytes	
(w) (a) State ways in which molars are adapted to their functions.	( 2marks)
(b) Name any two dental diseases.	(2 marks)
(x) How is the sperm cell adapted to carry out its function?	(3 marks)
(y) The following are diagrams of two pollen grains.	
K L	

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(d) State one observable difference between K and L.	(1 mark)
(e) State the agent of pollination for each of them.  K	(2 marks)
L	
(z) How do sunken stomata reduce transpiration?	( 2marks)
(aa) Give the classes to which the following animals belong.	( 3marks)
(f) Human being	
(g) House fly  (h) Spider	
(bb) (a) State one event that occurs in prophase of meiosis I which does not occur	in prophase of
mitosis.	(1 mark)

(b) What are the results of the above phenomena?	(2 marks)
27. Explain why growing grass die a few days when salt is sprinkled on it.	(3 <b>marks</b> )



### Kenya Certificate of Secondary Education

NAME		ADM	
DATE	SIGN	TARGET	
231/2			
BIOLOGY			
PAPER 2			
(THEORY)			
2 HOURS			
INSTRUCTIONS TO (	CANDIDATES		

- (vii) Write your name and Index Number in the spaces provided above.
- (viii) This paper consists of two sections. Section A and section B.
- (ix) Answer **ALL** questions in section **A** in the spaces provided. In section **B** answer question **6** (compulsory) and either question **7** or **8** in the spaces provided after question 8

#### For Examiners use only.

Section	Question	Maximum score	Candidates score
A	1	8	
	2	8	
	3	8	

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	4	8
	5	8
В	6	20
	7	20
	8	20
	Total score	80

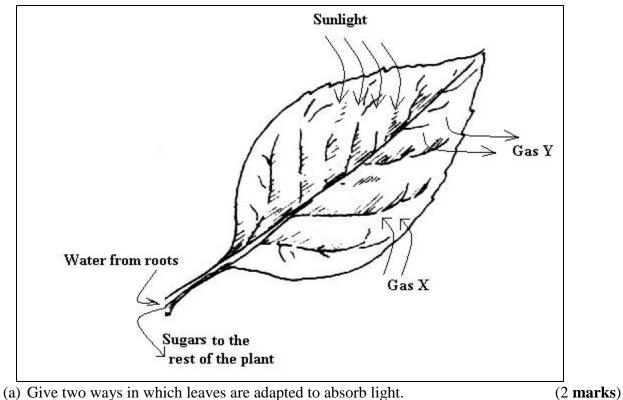
This paper consists of 10 Printed pages.

Candidates should check the question paper to ensure that all the papers are printed as indicated and no questions are missing

d. 	<ul><li>(a) What is meant by the following terms?</li><li>(f) Protandry</li></ul>	1 <b>mark</b> )
	(g) Self sterility	( 1 <b>mark</b> )
•••	(b) The diagram below shows a stage during fert	ilization in a plant.
		— Pollen tube
	R OO S	
	(cc) Name the parts labelled Q,R and S Q	(3 marks)
	R	
•••		······

S	
(dd) State two functions of the pollen tube	(2 marks)
(c) On the diagram label the microphyle.	(1mark)
Explain what happens to excess amino acids in the liver of humans.	(3 <b>marks</b> )
(b) Which portions of the human nephron are only found in the cortex?	(3 marks)
(b) Which portions of the numan nephron are only found in the cortex?	(3 marks)
(c) (i) What would happen if a person produced less antidiuretic hormone?	(1 <b>mark</b> )
(e) (i) What would happen if a person produced less anti-directe normone.	
(ii) What term is given to the condition described in C (i) above?	(1 <b>mark</b> )
3. (a) (i) What is meant by the term biological control?	(1 <b>mark</b> )

(ii) Give an example of biological control.	(1 <b>mark</b> )
(b) (i) What is eutrophication?	(3marks)
(ii) What are the effects of eutrophication?	(3 marks)
(c) Name a substance that is responsible for acid rain.	(1 <b>mark</b> )
4. Leaves are the organs of photosynthesis. The following diagram shows what	at happens in a plant leaf
during photosynthesis.	



(b) Name the gases labelled X and Y.	( 2mark
X	
Y	
c) Name the tissue which transport:	
(ix)Water in to the leaf.	( 1 <b>mark</b> )

	(x) Sugars out of the leaf.	(1 mark)
	(d) Explain why it is an advantage for the plant to store carbohydrates as starch rathe	(2marks)
 5.	Some millet seeds were socked in water for two days. They were then broken into sm placed on the surface of agar containing starch. After two days it was found that the a contained starch.	nall pieces and
	(a) Suggest how the test for starch in the agar was carried out.	(1 mark)
	(b) Explain why there was no starch in the agar after two days.	(2marks)
	(c) Why was it necessary to soak the seeds?	(1mark)
	6. Why were the millet seeds broken into small pieces?	(1mark)
	7. State the observation that would be made if the seeds had been soaked in boiling	
•••	8. Suggest a control experiment that would have been suitable.	( 2marks)

 	•••••	
 		• • • • • • • • • • • • • • • • • • • •

### **SECTION B**:

# Answer question 6 (compulsory) and either question 7 or 8 in the spaces provided after question 8

6. A research was carried to determine the trend of growth of some boys and girls. Their average mass in kilograms was taken separately for a period of 20 years and tabulated as shown in the table below.

Age	Average mass of boys (kg)	Average mass of girls (kg)
0	2.5	2.5
2	11.5	11.5
4	15.0	16.0
6	18.5	19.3
8	22.1	27.1
10	25.1	27.1
12	27.5	30.5
14	37.0	35.5
16	44.0	44.0
18	46.9	52.0
20	48.5	55

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<ul><li>9. From the graph, determine the;-</li><li>(i) Mass of boys at the age of 11 years.</li></ul>	(1 mark)
(1) Wass of boys at the age of 11 years.	(1 mark)
(j) Growth rate of girls between ages 13 and 15.	(3 marks)
	• • • • • • • • • • • • • • • • • • • •
10. Account for the change in the mass of girls during the age stated in (ii) above.	(2 marks)
11. Explain the trend observed in the curves for both boys and girls.	(2 marks)
	•••••
<b>12.</b> Why do girls above 10 years require in take of food that is richer in iron than boy age?	(2 marks)
<b>13.</b> Part from using average mass to estimate growth in human beings, name two other that can be used.	er parameters (2 marks)

•••		
•••		
•••	7 Describe how the various parts of the human disactive system are adepted to	their functions
	7.Describe how the various parts of the human digestive system are adapted to	their functions.
		(20 <b>marks</b> )
8.	(a) State the causes of air pollution.	(5 marks)
	(b) State how air pollutants affect organisms hence state how air pollution	should be controlled.
		(15 <b>marks</b> )
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### Kenya Certificate of Secondary Education

NAME	••••••	ADM	· • • •
DATE231/3	SIGN	TARGET	
BIOLOGY			
PAPER 3			
(PRACTICAL) 1 <sup>3</sup> / <sub>4</sub> HOURS			
17/4 HOURS			

# Kenya Certificate of Secondary Education INSTRUCTIONS TO CANDIDATES

- (xi) Write your name and Index Number in the spaces provided above.
- (xii) Sign and write date of examination in the spaces provided above.
- (xiii) Answer **ALL** questions in the spaces provided in the question paper.
- (xiv) You are **NOT** allowed to start working with the apparatus for the first 15 minutes of the 1<sup>3</sup>/<sub>4</sub> hours allowed for this paper. This time is to enable you to read the question paper and make sure you have all the chemicals and apparatus that you may need.
- (xv) All workings MUST be clearly shown where necessary.
- (xvi) Mathematical tables and silent electronic calculators may be used.

**44** | Page

### For Examiners use only.

Question	Maximum Score	Candidates Score
1	12	
2	14	
3	14	
TOTAL SCORE	40	

This paper consists of 5 Printed pages.

Candidates should check the question paper to ensure that all the papers are printed as indicated and no questions are missing

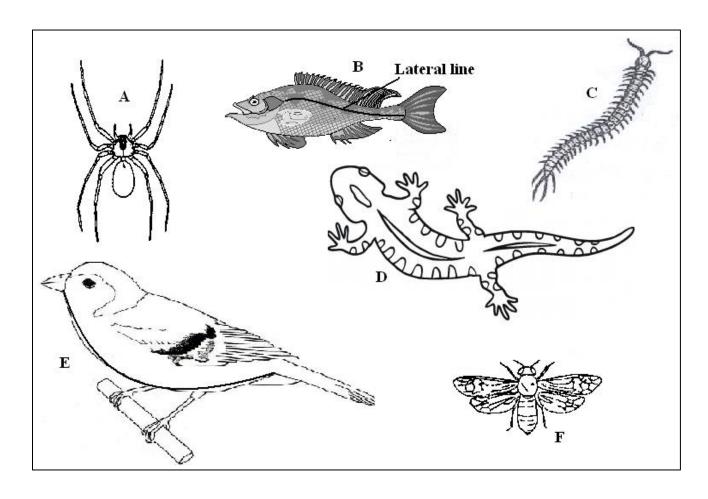
9. (a) You are provided with a solution L. Using the reagents provided; determine the food compounds in L. Fill in the table below.

FOOD COMPOUND	PROCEDURE	OBSERVATION	CONCLUSION

	n L in a visking tubing. Tie beaker.leave the set up for 20 i	
(ii) Account for the observ		(2marks)
	a visking in the bodies of liv	 

10. Study the photograph questions that	micrograph of the longitudinal section of a maize fruit be	follow.
<b>14.</b> (i) Name th A	e parts labelled A, B, C and D.	(4marks)
В		
C		

(ii) Give the role played by A and D.	(2 mark)
A	
D	
<b>15.</b> (i) Name the type of germination exhibited by maize grain.	( 1 mark)
13. (1) Name the type of germination exhibited by marze gram.	( 1 mark)
(ii) Place the organisms from where the photomicrograph was obtained into its	
Kingdom	
Division	
Class	
(3marks)	
(iii) State three characteristics of members of the class identified in b (ii) above	(3marks)
<b>16.</b> Give one reason why the maize grain is classified as a fruit.	(1mark)
11. Study the organisms drawn below and answer the questions that follow.	



(k)	t) Use the dichotomous key below to identify the class the organisms belong to. (	12 marks)
1.	(a) Phylum Chordata go to 2	
	(I) Phylum arthropoda go to 3	
2.	(a) Has scales on the body go to 4	
	(b) Has no scales on the body	
3.	(a) Has cephalothorax	
	(b) Has no cephalothorax go to 5	
4.	(a) Has fins Pisces	
	(b) Has no fins	
5.	(a) Has three pairs of legs	
	(b) Has more than three pairs of legs go to 6	
6.	(a) Two pairs of legs per segment Diplopoda	

(b)	One pairs of legs per	segment	Chilopoda
7. (a)	Has feathers		Aves
(b)	) Has no feathers		go to 8
8. (a)	Has a tail		Reptilia
(b)	) Has no tail		Amphibia
	Specimen	Step followed	Identity
	A		
	В		
	C		
	D		
_	E		
_	F		
	the actual length from	-	of the tail of the specimen B is 100mm. (2marks)
• • • • • •			



### Kenya Certificate of Secondary Education

NAME	•••••	••••••	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	AD	М	•••••	•••
DATE	• • • • • • • • • • • • • • • • • • • •	•••••	SIGN	•••••	•••••	TA	ARGET	• • • • • • • • • • • • • • • • • • • •	•••
565/1									
BUSINESS STUDI	ES								
PAPER 1									
TIME: 2 HOURS									
INSTRUCTIONS	TO CANE	DIDATES							
Answer all the q	uestions ir	n spaces pr	ovided.						
FOR EXAMINERS	USE ONLY	<u>′</u>							
QUESTIONS	1	2	3	4	5	6	7	8	9

**MARKS** 

10	11	12	13	14	15	16	17	18
	T					T ==	1	
19	20	21	22	23	24	25		
				TO <sup>-</sup>	 ΓAL MARKS	5		

This paper consists of 6 printed pages.

Candidates should check to ensure that all pages are printed as indicated and no questions are missing

	ctors that you would co	onsider before exte	nding credit facilities to a custor	mer. (4 <b>Marks</b> )
City formals				// B. M. o. ul. o. )
	aracteristics of human v			(4 Marks)
	g information relates to		' and Z.	(4 Marks)
	ASSETS LIABILITIES	CAPITAL		
W	350,000	b	150,000	
X	а	160,000	240,000	
Υ	800,000	450,000	d	
Z	700,000	С	280,000	
	e figures represented b			

	•••••
5. Highlight four limitations posed by the use of national income statistics as a way of cor	nparing the living
standards of popula for different countries	(4 Marks)
standards of people for different countries.	(4 IVIATKS)
	•••••
<b>6</b> .State four merits associated with internal borrowing. (4 <b>Ma</b>	rks)
	•••••••
7. What four measures would you advice the government of Kenya to apply so as to cur	b the inflationary
tendencies the country is currently experiencing?	(4 Marks)
tendencies the country is currently experiencing:	(4 IVIdIKS)
	(4.5.4.)
<b>8</b> .State four factors that may influence the price elasticity of demand of a commodity.	(4 Marks)

State four possible factors that may contribute to	a case of an abnormal demand curve.	
<b>0.</b> The data below relates to Kimeu's business as at		(4 Mark)
	Shs	
Capital as at 1 <sup>st</sup> Jan 2010	100,000	
Additional investment in the year	40,000	
Profit realized in the year	25,000	
Drawings made in the year	45,000	
Determine Kimeu's capital as at 31 <sup>st</sup> Dec 2010		
1. State four features of labour as a factor of produ	uction	(4 Marks)

g the description.	(4 Marks)
DESCRIPTION	DOCUMENT
(m) Used to correct an undercharge error	
(n) Seeking information on items stocked	
and their prices	
(o) Inform the buyer that the goods ordered have	
been dispatched	
(p) Requests payment for goods before they are	
sent to the customer	
tate four features of an oligopolistic type of Market.	(4 Marks)
tate four features of an oligopolistic type of Market.	(4 Marks)
tate four features of an oligopolistic type of Market.	(4 Marks)
tate four features of an oligopolistic type of Market.	(4 Marks)
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tate four features of an oligopolistic type of Market.	(4 Marks)
tate four features of an oligopolistic type of Market.	(4 Marks)
tate four features of an oligopolistic type of Market.	(4 Marks)

<b>15</b> .	The following information relates to Blue star traders in the year 2009.
	Jan 1 started business by depositing Shs. 150, 000 in the business' bank account
	Jan 2 bought stock worth shs. 10,000 by cash.
	Enter these transactions in the relevant ledger accounts.
16.	State four possible errors that may not be detected by a trial balance.
17.	Under what four circumstances would a producer opt to sell his goods directly to his customers?  (4 Marks)

**18.** The balances below were extracted from the books of Kazu traders as at 30<sup>th</sup> June 2010.

ITEM KSHS

Furniture 20,000

Debtors 30,000

Creditors 42,000

Cash in hand 25,000

Cash at bank 60,000

Delivery van 280,000

Capital 348,000

Bank van 120,000

Net loss 45,000

Prepare Kazu's balance sheet as at 30<sup>th</sup> June 2010.

19.	State four gaps in the market that may provide an opportunity to an entrepreneur.	(4 Marks)
20.	State four reasons why an insured may not be compensated despite an insured risk occurring	g. (4 Marks)
21.	Under what four circumstances would an office manager think of replacing an existing machin	e with a modem
	one? (4 Mark	
		(4 Marks)
••••		

ORDINARY SHARE	PREFERENCE SHARE
(xvii)	12
(ii)	(ii)
(iii)	(iii)
(iv)	(iv)
<b>24.</b> Kim insured his motor vehicle value at shs.1,0	000,000 for shs. 800,000. The motor vehicle was involved in
accident and declared a write off. Calculate th	e amount Kim should get from the insurer. (4 Marks)
25. State four ways through which the piece of a c	commodity may be determined. (4 Marks)
,	



### Kenya Certificate of Secondary Education

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Kenya Certificate of Secondary Education

#### **INSTRUCTIONS TO THE CANDIDATES**

Answer any **FIVE** questions

All questions carry equal marks

All working must be shown

This paper consists of 2 printed pages.

Candidates should check to ensure that all pages are printed as indicated and no questions are missing

1	٦)	Explain five causes of unemployment in K	nnya	10 Marks
Ι.	a)	Explain five causes of unemployment in K	enva.	(10 <b>Marks</b> )

- b) Explain five circumstances that would influence a producer to use wholesalers in distributinghis produce. (10 Marks)
- 2. a) Explain five ways in which the insurance industry contributes to the development of Kenya's economy. (10 Marks)
  - **b)** Explain five demerits of government involvement in the running of public corporations.

(10 Marks)

- a) Explain five factors that may be considered in determining the appropriate channel fordistributing goods.
   (10 Marks)
  - b) Explain five reasons why business organizations may merge with one another. (10 Marks)
- **4. a)** Explain five benefits that a country would get by encouraging investors to locate industries in rural areas. (10 **Marks**)
  - **b)** On 1<sup>st</sup> May 2010 Musa Traders had sh. 15, 000 cash in hand and Sh. 160, 450 at bank. During the month, the following transactions took place.
    - May 2 Bought goods for Sh. 5, 400 and paid by cheque.
    - May 8 Received sh. 7, 200 cash from a debtor
    - May 15 Paid a creditor Sh. 18, 300 by cheque
    - May 16 Paid salaries sh 4, 200 in cash
    - May 18 Sold goods for sh. 9, 200 and was paid by cheque
    - May 20 Withdrew sh. 30, 000 from bank for office use
    - May 25 Received sh.8, 000 cash from a debtor
    - May 28 Paid general expenses sh. 4, 000 cash.
    - May 29 Deposited sh.10, 000 cash in bank
    - May 30 Paid for electricity sh. 2, 500 by cheque
    - Record the above transactions in a two column cash book and balance it off. (10 Marks)
- **5.** a) Explain five ways which traders can apply to attract more customers. (10 Marks)

- b) Explain five factors that could affect the quantity of cabbages supplied in a Market. (10 Marks)
- 6. a) Explain five factors to consider when choosing an appropriate means of transport. (10 Marks)
  - **b)** The following balances were extracted from the ledger accounts of Bidii traders for the yearended 31<sup>st</sup> December 2010.

Capital	940,000
Bank	100, 000
Accrued expenses	20, 000
Debtors	60, 000
Creditors	60, 000
Stock	100, 000
10 Years Bank loan	200, 000
3 year ICDC loan	100,000
Vehicle	300, 000
Plant and machinery	200, 000
Land	500, 000
Drawings	40, 000
Cash	20, 000

Using these balances prepare Bidii traders trial balance for that year dully balanced. (10 Marks)



Kenya Certificate of Secondary Education

233/3 CHEMISTRY (PRACTICAL) PAPER 3

# **CONFIDENTIAL**

#### Per Student

- 1. Solution A (100ml)
- 2. Solution B (100ml)
- 3. Phenolphthalein indicator
- 4. 3 conical flasks
- 5. Funnel
- 6. Burette
- 7. Pipette
- 8. Clamp
- 9. Stand
- 10. CBI (g) NaHCO<sub>3(s)</sub>
- 11. Clean spatula
- 12. Test- tubes (5)
- 13. Litmus papers (2 blue and 2 red)
- 14. Distilled water
- 15. Solid Q 1g (NH4)<sub>2</sub> SO<sub>4</sub>.FeSO<sub>4</sub>. 6H<sub>2</sub>O and NaCl (ration 1:1)

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THIS QUESTIONS WERE ACQUIRED, COMPILED AND SUPPLIED BY TOPLIGHT PUBLISHERS KENYA PANEL LIMITED

### 16. 1 boiling tube

#### Access to;

- 17. 2M ammonia solution
- 18. 2M Sodium hydroxide solution
- 19. Source of heat
- 20. Silver nitrate solution (0.05M)
- 21. Dilute nitric acid (0.1M)
- 22. Dilute hydrochloric acid (0.1M)
- 23. Dilute Barium nitrate solution (0.1M)
- 24. Conc. Nitric acid in dropper bottles
- 25. White tile
- 26. Test tube holder
- (xviii) Solution A is prepared by dissolving 6.3g of H<sub>2</sub>C<sub>2</sub>O<sub>4</sub>. 2H<sub>2</sub>O in 400cm<sup>3</sup> of water and topped upto one litre of solution.
- (xix) Solution B is prepared by dissolving 4g of Sodium hydroxide in 400cm<sup>3</sup> of water and topped upto one litre of solution.



### Kenya Certificate of Secondary Education

NAME	ADM	
DATE	SIGN	TARGET

233/1 **CHEMISTRY** (THEORY) PAPER 1 TIME: 2 HOURS.

### Kenya Certificate of Secondary Education

### **INSTRUCTIONS TO CANDIDATES**

- a) Write your **NAME** and **INDEX NUMBER** in the space provided above
- b) Sign and write the date of examination in the spaces provided above
- c) Answer **ALL** the questions in the spaces provided
- d) ALL working must be clearly shown where necessary.
- e) Mathematical tables and silent electronic calculators may be used.

#### FOR EXAMINER'S USE ONLY

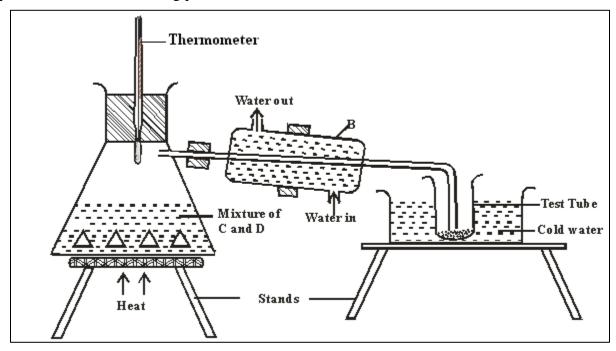
Question	Maximum score	Candidate's score
1 31	80	
Total score	80	

# This paper consists of 9 printed pages. Candidates should check to ensure that all pages are printed as indicated and no questions are missing

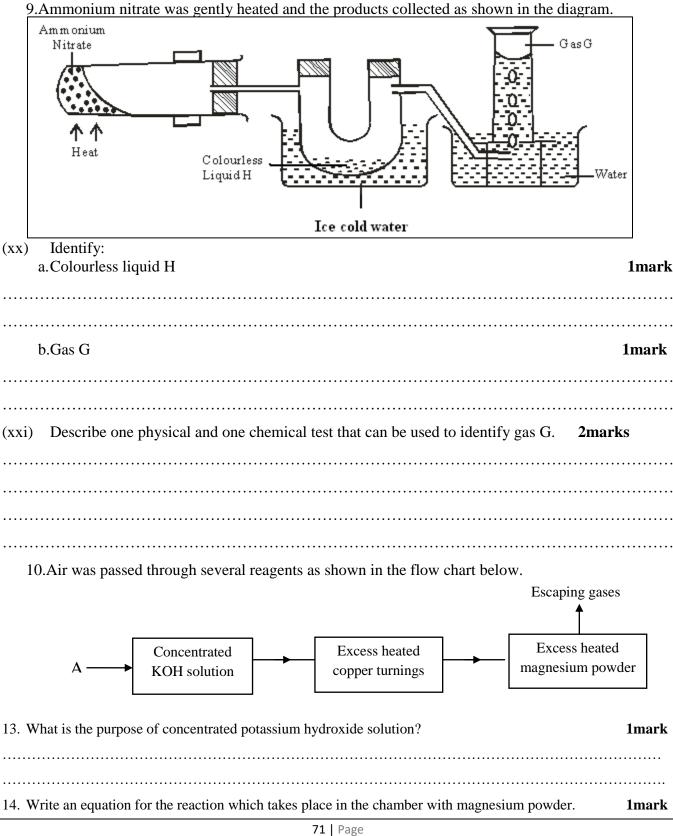
	1.An element K has atomic number 20 while element M has atomic number 8. Write the electronic configuration for K and M K	1mark
	M	1mark
(f)	Write the symbol of the most stable ion of K and M K	1mark
	M	1mark
a)	2.Molten Lead (II) bromide is electrolyzed using carbon electrodes. Write the hal reactions that occur at the anode and the cathode.  Anode	f equations of the  1mark
	Cathode	1mark

3.Explain why the conductiv	ity of metals decreases v	with increase in temperature.	2marks
		with powdered metal Y. Hot he metals in order of reactivity	-
5.Some sodium chloride was of sodium chloride can be se		ed with copper (II) oxide. Desc e. 2ma	
6.Hot platinum wire was low below.	wered into a flask conta	ining concentrated ammonia s	solution as shown
		Glass rod	
		———Hot platinum wire	
		———Concentrated Ammo	onia Solution
State and explain the observa	ations made.		3marks

7. The set up below represents the apparatus that may be used to separate a mixture of two miscible liquids C and D whose boiling points are  $80^{\circ}$ C and  $110^{\circ}$ C.



_	Name B	1mark
-	What is the purpose of the thermometer	1mark
c) 	Which liquid was collected in the test tube?	1mark
	8 Draw a dot ( ) and cross (x) diagram to show honding in carbon (II) oxide	2marks



15. Name one gas which escapes from the chamber containing magnesium powder.
13. Name one gas which escapes from the chamber containing magnesium powder.
Give a reason for your answer 2marks
11. Name the following substances.
CH <sub>2</sub> CH CH <sub>2</sub> CH <sub>3</sub> 1mark
CH <sub>3</sub> CH CH CH <sub>2</sub> CH <sub>3</sub> 1mark
CH3 CH CH2 CH3
12. The diagram below shows the acidic and basic oxides fit into the general family of oxides.  Acidic Oxide Oxide
(x) State the name given to the type of oxide that would be placed in the shaded area. <b>1mark</b>
(xi)Give the name of any oxide that would be placed in the shaded area.  1mark
13.Study the information in the table below and answer the questions that follow. The letters do not represent the actual symbols of the elements.

Substance	Solubility in water	Electrical conductivity		
		Solid	Molten	
A	Insoluble	Good	Good	
В	Soluble	Poor	Good	
С	Insoluble	Poor	Poor	

	Which of the substances is highly likely to be sodium chloride? Explain	2marks
(i)	What type of bond exists in substance A?	1mark
(j)	State a possible structure in substance C?	1mark

14.Laboratory results showed the composition of a compound to be 58.81% barium, 13.72%, sulphur and 27.47% Oxygen. Calculate the empirical formula of the compound. Ba=137, S = 32, O = 16. **2marks** 

15. The diagram below shows a wooden splint that was placed horizontally across the non-luminous flame.  Unburnt part	middle part of a
Charred black	
(q) Explain the observation made	2marks
(r) Explain why non-luminous flame is preferred for heating than the luminous flame.	2marks
$16.200 \text{cm}^3$ of oxygen gas took 60 seconds to diffuse through a porous plug. Determine by $300 \text{cm}^3$ of sulphur (IV) oxide to diffuse through the same plug under the same contours (O=16, S = 32)	
15 D 1 1 1 0	
17.Explain why? I.Both methane and diamond are covalently bonded. Methane is a gas but diamond is very high melting point.	s a solid with  2marks

II.Ammonia is dissolved in water using an inverted funnel.	1mark
18.Explain giving reasons why? i.Sulphuric acid is not used with marble in the preparation of carbon (IV) oxide	2marks
(ee) Water cannot be used to distinguish oil fire.	1mark
19. A gas occupies 4dm³ at -23°C and 152 mmHg. At what pressure will its volume temperature then is 227°C.?	be halved, if the <b>2marks</b>
20.a) Sodium, Magnesium and Aluminium are elements in the periodic table. Explain has a higher melting and boiling point than sodium and magnesium. <b>2mar</b> !	•
b) The ionization energy of an atom is strongly influenced by three atomic parameters. S	
these parameters.	2marks
21. 15cm³ of a solution containing 2.88g/dm³ of an alkali XOH completely reacts 0.045M sulphuric acid. Calculate the molarity and relative atomic mass of X present	

	Traine the homologous series to which Q belongs	
  (h)	Name the homologous series to which Q belongs	
(g) 	24.A hydrocarbon Q was found to decolourise potassium manganate (vii) solution of Q were burnt completely six moles of carbon (iv) oxide and six moles of water Write the structural formula of Q.	
k) 	Give the uses of the two hydrocarbons named in (a) above.	2marks
j)	23.Crude oil is the main source of organic compounds such as hydrocarbons. The h crude oil have to be separated.  Name two important hydrocarbons obtained from crude oil.	2marks
••••		
	22.Describe how a solid sample of calcium sulphate can be prepared using the f dilute nitric (v)acid, dilute sulphuric (vi) acid and solid calcium carbonate	following reagents; 4marks

to form a colourless solution, Y and a colourless gas Z which formed a wl through lime water. Name:-	hite precipitate when bubbled
(i) Compound X	1mark
(ii) Solution Y	1mark
(iii)Colourless gas Z	1mark
26.When dry hydrogen gas passed over heated Lead (II) oxide in comb formed.	ustion tube, a grey solid was
Combustion Lead (ii) oxide  tube  Dry hydrogen  gas  Heat	Blue flame
a) Identify the grey solid.	1mark
b) Write the equation of the reaction taking place in the combustion tube.	1mark
c) Write the equation involving the blue flame.	2marks
77   Page	

25.Dilute sulphuric acid was added to a compound X, of magnesium. The solid reacted with the acid

	27.What do (C F C' S) mean?	1mark
 a)	28. What is meant by the term allotrophy?	1mark
	Explain in terms of structure and bonding why graphite is soft with greasy feeling.	2marks
•••		

# **ALLIANCE HIGH SCHOOL 2024 DETERMINANT**



### Kenya Certificate of Secondary Education

NAME	•••••	ADM			
DATE	SIGN	TARGET	••••		
233/2					
CHEMISTRY					
PAPER 2					
(THEORY)					
TIME: 2 HOURS.					

## Kenya Certificate of Secondary Education

#### **INSTRUCTIONS TO CANDIDATES**

- (i) Write your name and index number in the spaces provided above.
- (j) Sign and write the date of exam in the spaces provided above.
- (k) Answer ALL the questions in the spaces provided.
- (I) Mathematical tables and silent electronic calculators may be used.
- (m) All working **MUST** be clearly shown where necessary.

#### FOR EXAMINER'S USE ONLY

Questions	Maximum score	Candidates score
1	13	
2	11	

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3	13	
4	10	
5	10	
6	12	
7	11	
Total score	80	

This paper consists of 10 printed pages.

Candidates should check to ensure that all pages are printed as indicated and no questions are missing

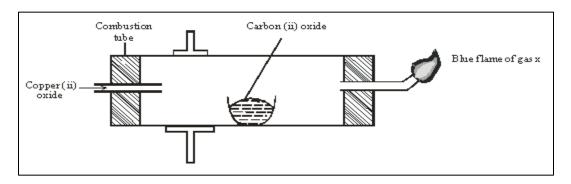
1.The grid below shows part of the periodic table. Study it and answer the questions that follow. The letters do not represent the true symbols of the elements.

		•				
				A		
I	В	С	D		Е	
F	G				Н	

(g) Which element forms an ion of charge - 2? Explain your answer	2marks
(h) What is the nature of the oxide formed by element C?	1mark
(i) How does the reactivity of H compare with that of E? Explain.	2marks

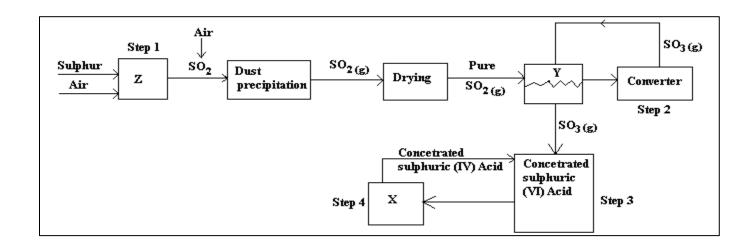
	• • • • • • • • • • • • • • • • • • • •
(j) Write the chemical equation for the reaction between B and chlorine?	1mark
(f) Write the electrical equation for the reaction between B and electric.	Imark
	• • • • • • • • • • • • • • • • • • • •
	• • • • • • • • • • • • • • • • • • • •
(k) Evaloin how the etemic radii of the following compare:	2marks
(k) Explain how the atomic radii of the following compare;	Ziliai KS
i) F and G	
ii) B and G	
-,	
	• • • • • • • • • • • • • • • • • • • •
(1) The oxides of B and D are separately dissolved in water. State the effect of each	product on litmus
paper.	2marks
(m)20cm <sup>3</sup> of a solution of a hydroxide of I completely neutralizes 17.5cm <sup>3</sup> of 0.5M su	Ilphuric (VI) acid.
Calculate the concentration in moles/litre of solution of the hydroxide of I	3marks

2. The diagram below shows an experiment set-up to investigate a property of carbon (ii) oxide. Study it and answer the questions that follow.



(xxii) Name one condition that is missing in the set up	1mark
(xxiii) If the experiment was carried out properly. Whetube?	
(xxiv) Give an equation for the reaction that occurs in	the combustion tube. 1 ½ mark
(xxv) Give an equation for the reaction that takes place	ee as gas x burns. 1½ marks
(xxvi) Why is it necessary to burn gas x?	1mk
(xxvii) Name the reducing and oxidizing agent.  2marks 16. Reducing agent	

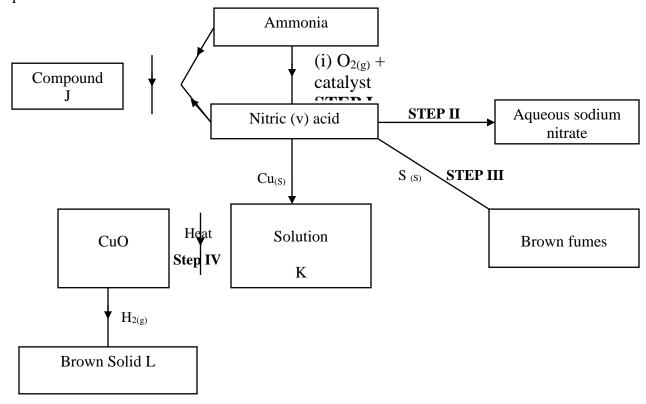
17. Oxidising agent				
(xxviii)Identify any other so oxide.	ubstance that woul	d have the same	effect on copper (ii) oxide a	as carbon (ii)  1mark
3.a) Sulphur occurs natu iWhat are allotropes?	rally in two differe	ent forms called a	allotropes;	1mark
ii.The two allotropes of sulp	hur are stable at di	fferent temperate	ures, as shown in the equation	n below.
	Above 95.5°C			
Rhombic sulphur		Monoclini	c sulphur	
Give a name to the temp	Below 95.5°C perature 95.5°C			1mark
b) Below is a flow chart dia	gram for the contac	ct process for the	e manufacture of sulphuric (V	······································



i. Give the name of chambers labeled 1 ½ mark X Y  $\mathbf{Z}$ ii.State the three conditions in the converter. 1 ½ mark iii.Explain why gases are passed through; 2marks I – The dust precipitator and drying power II- The chamber labeled Y

	iv.Write the balanced equations for the reactions in;  3marks  Step 2:
	Step 3:
	Step 4:
 c) 	Calculate the volume of sulphur (VI) oxide gas in litres that would be required to produce 178kg of Oleum in step 3. (Molar gas volume at s.t.p.=22.4l, H=1, O=16, S=32)  3marks
•••	

4. a) The scheme below shows various reactions starting with ammonia. Study it and answer the questions that follow.



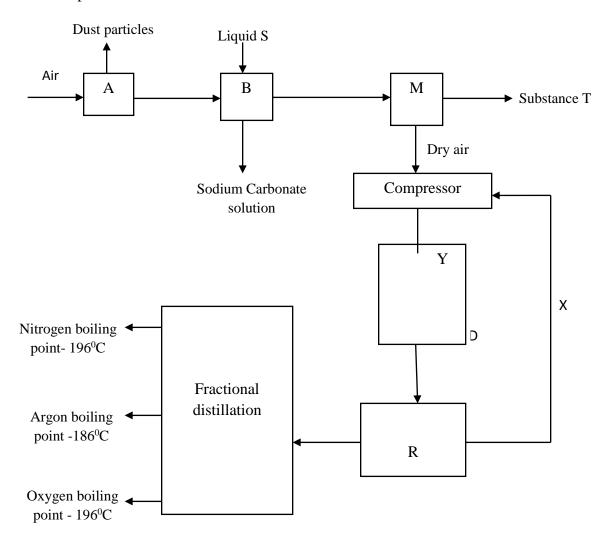
 i.List the raw materials used in the manufacturer of ammonia gas.	1mark
ii.What catalyst is used in step I?	1mark
iii.Write an equation for the reaction that occurs between ammonia and oxygen gas of a catalyst.	s in the presence  1mark
iv.Identify the process is step II?	

v.Using an appropriate equation, explain how the reaction in step III occurs	
(vi) What should be added to solution K to form solid L?	(1 mark)
Vii.	
(a) I. Write the formula of compound J.	
II. Calculate the mass of compound J that would contain 14g of nitrogen. (N=14, O=16	5, H= 1) ( <b>2marks</b> )
b) Explain the advantage of using ammonium phosphate fertilizer over the other nitrog	genous fertilizers. (1mark)
	•••••

5. I	Dry chlorine was collected using the set up below.	
	a.Name a suitable drying agent for chlorine gas?	1mark
	b.State one property of chlorine gas which facilitates this method of collection.	1mark
	c.State the observations on the moist blue litmus paper. 2r	narks
	d.Chlorine gas was bubbled through distilled water. With aid of an equation show th of chlorine water.	e formation  1mark
	e.Write the formula of the compounds formed when chlorine gas reacts with phosphorous.	n warm dry narks
	f.Chlorine gas is mixed with moist hydrogen sulphide gas, state and explain the 2marks	

g.Give one use of chlorine gas.	1mark

6.Fractional distillation of air is used in the industrial manufacture of oxygen. The diagram below shows the process.

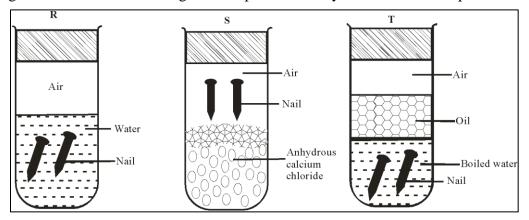


a. What processes are taking place in chamber A,B,M and D

2marks

	A	
	В	
• • •		
•••	M	
•••	D	
	b.Name; i.Liquid S	
	ii.Substance T	
	c.Explain why part Y in chamber D is curved?	1mark
	d.Give two industrial uses of oxygen gas?	2marks
	In the laboratory propagation of evygan, manganasa (iv) evide and hydrogen paga	
Ċ.	In the laboratory preparation of oxygen, manganese (iv) oxide and hydrogen percan equation to show how oxygen gas is formed.	1mark
•••		

f. An investigation was carried out using the set-up below. Study it and answer the questions that follow.

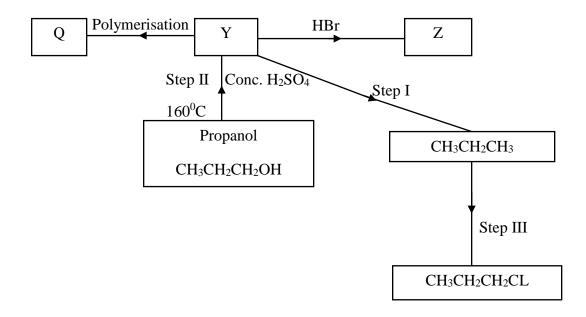


i.State and explain what will happen in the three test-tubes R, S and T after seven days.

3marks

1mark	ii.Give one reason why some metals are electroplated.

7.Below is a scheme of some reactions of propanol. Study it and answer the questions that follow.



a.State the reagents and conditions required to effect step I	3marks
b.Draw the structural formulae and name product Z.	1mark
c.Name product Q	1mark
d.Explain how product Y can be distinguished from the product formed  2marks	after step I has taken place.
2marks	
e.f.What name is given to the process in Step II and step III  2marks Step II	
Step III	
F.(i) Define the term hydrocarbon	1mark
(ii) Draw the structure of 1, 2 – dibromopropane	1mark

## **ALLIANCE HIGH SCHOOL 2024 DETERMINANT**



#### Kenya Certificate of Secondary Education

NAME		ADM	· • •
DATE	SIGN	TARGET	•••
233/3			
CHEMISTRY			
PRACTICAL			
PAPER 3			
TIME: 21/4 HOURS.			

#### Kenya Certificate of Secondary Education

#### **INSTRUCTIONS TO CANDIDATES**

- (xxx) Write your name and index number in the spaces provided above.
- (xxxi) Answer **ALL** the questions in the spaces provided.
- (xxxii) You are not allowed to start working with the apparatus for the first 15 minutes of the 2¼ hours allowed time for the paper.
- (xxxiii) Use the 15 minutes to read through the question paper and note the chemicals you require
- (xxxiv) Mathematical tables and electronic calculators may be used.
- (xxxv) All working **MUST** be clearly shown where necessary.

#### FOR EXAMINER'S USE ONLY.

Question	Maximum score	Candidate's score

1	17	
2	8	
3	15	
Total score	40	

This paper consists of 6 printed pages.

Candidates should check to ensure that all pages are printed as indicated and no questions are missing

the Sol Pho Cla	<ol> <li>Solution A is prepared by dissolving 6.3g of the organic acid H<sub>2</sub>C<sub>2</sub>O<sub>4</sub>.nH<sub>2</sub>O in water to make a litre of the solution.</li> <li>Solution B: 0.1M NaOH solution</li> <li>Phenolphthalein indicator</li> <li>Clamp and stand</li> <li>Burette and pipette.</li> </ol>						
Pre	ou are required to determine the value of ocedure.  I the burette with solution A and adjust						
the	d 2 to 3 drops of phenolphthalein indic ecolour just permanently changes. Reco o more times to obtain concordant resu	ord your results in the t					
_0,	Titration	1	2	3			
	Final burette reading (cm <sup>3</sup> )						
	Initial burette reading (cm <sup>3</sup> )						
	Volume of solution A used (cm <sup>3</sup> )						
27.	27. Calculate the average volume of solution A used.  4mark s 1mark						
28.	Calculate the moles of sodium hydrox	cide in the volume of so	olution B used.	2marks			

<b>29.</b> Given that solution B - Sodium hydrox calculate the number of moles of the org	ide and solution A organic acid react in ganic acid –solution A used?	n the ration of 2:1  2marks
	96   Page	

<b>30.</b>	Calculate	the	moles of	of	organic	acid	solution	Α	used	per	litre o	of	solution

2marks

**31.** Calculate the relative formula masses of the organic acid solution A

**3marks** 

**32.** Calculate the value of n in  $H_2C_2O_4.nH_2O(H=1, C=12, O=16)$ 

**3marks** 

- 19. You are provided with CBI. Carry out the test below. Write your observation and inferences in the spaces provided.
  - (s) Using a clean spatula, heat about one third of the solid CBI in a non-luminous Bunsen burner flame.

Observation	Inferences
1mark	1mark
97 📗	Page

THIS QUESTIONS WERE ACQUIRED, COMPILED AND SUPPLIED BY TOPLIGHT PUBLISHERS KENYA PANEL LIMITED

(t)	Put a half spatula endful of CBI in a test tube	. Heat	gently	and	then	strongly.	Test	for	any	gas
	produced using litmus papers.									

Observation	Inferences
1mark	l 1mark

(u) Put 2cm³ of dilute hydrochloric acid into a test tube. Add ¼ endful of CBI into the test tube. Test for any gas procedure.

Observation	Inferences
2marks	2marks

20. You are provided with solid Q, carry out the test below. Record your observations and inferences in the table. Identify any gas (es) evolved.

Place all the solid Q provided into boiling tube and add distilled water until the tube is  $\frac{1}{4}$  full. Divide it into five portions.

a) To the 1<sup>st</sup> portion add ammonia solution drop wise until excess.

	Observation	Inferences
	<b>1mark</b> To the 2 <sup>nd</sup> portion add sodium hydroxide ixture for the next test.	1mark solution dropwise until in excess. Keep the resulting
	Observation	Inferences
	1mark	1mark
ii)	Warm the preserved mixture from b (i) al	pove
	Observation	Inferences
	99	Page

1 1	4 1
1mark	1mark

1mark

c) i) To the  $3^{rd}$  portion add silver nitrate solution. Preserve the mixture for the next test.

Observation	Inferences
	l

ii) To the preserved mixture in c (i) above add diluted nitric acid.

1mark

Observation	Inferences
1mark	1mark

 Observation	Inferences
1mark	1mark
rtion add 2-3 drops of conc. Ni xture and allow to cool. Add so	tric acid. odium hydroxide solution dropwise until in exc
Observation	Informaca
	Inferences
	Interences
1mark	1mark

## **ALLIANCE HIGH SCHOOL 2024 DETERMINANT**



## **Kenya Certificate of Secondary Education**

NAME		ADM	
D 4 (E)E	GY GYY	T A D CET	
DATE	SIGN	TARGET	• • • • • • •

451/1

**COMPUTER STUDIES** 

PAPER 1 (THEORY)

TIME: 2 ½ HOURS

Kenya Certificate of Secondary Education

#### **INSTRUCTIONS TO CANDIDATES**

- (v) This paper consists of TWO sections A and B
- (w) Answer all questions in section A.
- (x) Answer question 16 (Compulsory) and any other THREE questions in section B.
- (y) All answers should be written in the spaces provided in the question paper

## **FOR EXAMINER'S USE ONLY.**

Section	Question	Candidates Score
А	1 – 15	
	16	
	17	
В	18	
	19	
	20	
Total Score		

This paper consists of 8 Printed pages, candidates should check the question paper to ensure that all the papers are printed as indicated and no questions are missing

## **SECTION A (40 MARKS)**

## $\underline{\hbox{Answer {\it all} questions from this section in the spaces provided}}$

		1.List the components of a computer system hardware.	(2 Marks)
		2.Describe the term key to storage systems	(1 <b>M</b> ark)
(a)	i.	3.One classification of software is system software What is meant by system software	(1 Mark)
	ii.	Give one example of system software.	(1 Mark)
	i.	Name one other software classification	(1 Mark)
	ii.	Give one example of this type of software	(1 Mark)
	•••••	4.a. What do you understand by the term database management system? (DBM	S)? (1 Mark)

b. Define the f i. Primary Key	following terms as used in	a database.		(2 Marks)
ii. Record				
5.Different	tiate between COMports a	and LPT ports	(2 Mar	ks)
6.List three (3 Marks)	e factors to consider when	deciding on the choice	of electronic data pro	cessing method
7 Ventilati	on is an important practice	in the computer lab b	ecause it enhances pr	oner circulation
of air.	ways in which air is regula	•		(3 Marks)

			(4 Marks)
	a. 	Audit trail	
••••			
	b.	Data encryption	
••••			
••••			
••••	с. 	Log files	
••••			
	d.	Passwords	
••••			
••••	•••••		
		9. Highlight the use of find and replace features in word processors.	(2 Marks)
••••			
••••			
		10.Explain why two's complement is preferred to one's complement in computing	g. (1 mark)
		11.Computers have evolved through a number of generations. List any three ch	aracteristics of
			(3 marks)
••••			
••••			

12.List four formatting techniques used in Ms excel	(2 Marks)
13.List four examples of flat panel displays.	(2 Marks)
14.Explain the following terms as used in the word processing	. (4 Marks)
e. Indenting	
f. Alignment	
a Footnata	
g. Footnote	
h. Endnote	
15.Describe the role of an operating system in	
i. Memory management	

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	ii. Job scheduling	
		••••
	iii. Error handling	
••••	iv. Resource control	•••
••••		•••
••••	SECTION B (60 MARKS)	••
	16.a. State the three basic types of program control structures. (3 Marks)	
••••		••••
b.	Draw a flowchart which will simulate the processing of student's report. The simulation should be such that the user repeatedly inputs marks per subject for six subjects using a looping control structure. The computer processes the total marks and mean score of the student.	e
	NOTE:	
	1. It is assumed that the student does six subjects	
	2. The output required are: Average score and total marks	

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c.	Differentiate between analogue and digital data.	(2 Marks)
d.	Outline three advantages of using computers for data processing over other types of business equipment.	office and
	<ul><li>17.a. Convert the following numbers to their decimal equivalent.</li><li>(6 Marks)</li><li>i. 11.011<sub>2</sub></li></ul>	
	ii. 12.15 <sub>8</sub>	
	iii. A3.3/ <sub>6</sub>	
	b. Outline four ways in which data integrity may be maintained.	(4 Marks)

c. Explain four advantages of using questionnaires as a fact finding tool.	(4 Marks)
d. What is the role of a recycle bin?	(1 Mark)
18.a. Masai teacher's college has decided to automate its library for effective servic	es to the students.
Identify four methods they are likely to use to gather information during system devi	elopment.
	(4 Marks)
h. What do the following towns means in valeties to internet?	(4 NAcolica)
b. What do the following terms mean in relation to internet?	(4 Marks)
i. Downloading	
ii. Hyperlink	
iii. Web browsers	

		Internet convice providers
	(IV <sub>.</sub>	) Internet service providers
	c.	Differentiate between sorting and filtering as used in electronic spreadsheet program
		(2 Marks)
d.		nat do the following terms mean
	i.	Spam mail
	ii.	Disk
••••	iii.	Onboard moderm
		What does the term WIMD mean as used in computing?
•••	е.	What does the term WIMP mean as used in computing?

19.(a) Define a database model	(1Mark)
b. List four advantages of using database syster	ms (2marks)
c. In a database system, data integrity ensures	
the database. Differentiate the following typ	es of integrity constraints:
i. Validity integrity	(1mark)
ii. Entity integrity	(1mark)
iii. Referential integrity	(1mark)
Neterential integrity	(211011)
d. Briefly describe the three database models	(3 Marks)

e.	. Using diagrams describe the following three types of relationships. (3Marks)	
i.	One – to – one	
ii.	. One – to – many	
iii.	i. Many – to – many	
f.		
i.Seria	the following file organization methods. (3 Ma	arks)
ii.Seqı	uential	
ii.Ran	ndom	

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	implemented ten years ago but has restricted reporting facilities and has a	•
	The school intends to replace the old system with a new computerized	
	considering both 'parallel running ' and 'direct changeover'	•
(xx	xvi) Briefly explain the terms parallel running and direct change over as	used in system
	implementation.	(2 Marks)
ii.	Give two disadvantages of direct changeover overparallel running	(1 Marks)
iii.	Identify two main risks of direct changeover during system implementation	n (2 Marks)
iv.	Mention any two advantages of running both the manual system and the o	computerized system
	simultaneously	(2 Marks)
b.	i. What is a website?	(2 marks)
••••••		

ii. Name three facilities that are needed to connect to the internet.	(3 Marks)
c. State three ways students can benefit by having internet in a school	(3 Marks)



## **Kenya Certificate of Secondary Education**

NAME	 .ADM
DATE	
451/2	
•	
COMPUTER STUDIES	
PAPER 2	
(PRACTICAL)	
TIME: 2½ HOURS	

Kenya Certificate of Secondary Education

### **INSTRUCTIONS TO CANDIDATES**

(a) Type your name and index number at the top right hand corner of each print out

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THIS QUESTIONS WERE ACQUIRED, COMPILED AND SUPPLIED BY TOPLIGHT PUBLISHERS KENYA PANEL LIMITED

- (b) Write your name and index number on the diskette/CD-R provided
- (c) Write the name and version of software used in each question on the answer sheet
- (d) Answer ALL the questions
- (e) Passwords should not be used while saving in the diskette/CD-R
- (f) All answers MUST be saved in the diskette/CD-R
- (g) Make print out of answers on the answer sheet provided

### **FOR EXAMINER'S USE ONLY**

Question	Candidate's score
1	
2	
Total score	

This paper consists of 4 printed pages.

Candidates should check to ensure that all pages are printed as indicated and no questions are missing

11/| rage

#### **QUESTION ONE**

- 1. (a) Assume you are the Director AMACO INSURANCE COMPANY LTD you want to update your customers on the current dues as per the insurance cover each client have. Use mail merge to write an official letter to FIVE CUSTOMERS informing them of this. Your letter must meet the following conditions.
  - i. Must have the header at the top with the company's name as the letter head
     (2mks)
  - ii. Must have footer at the bottom indicating the current date and time, left aligned.(2mks)
  - iii. The insurance will cover the vehicles and each client due, car number will not be the same. (2mks)
  - iv The address lines will include Title

First name

Last name

Address

Country

Car no plate

Amount due

(14mks)

(b) (i) Prepare the table below in Ms word and then apply formatting as follows and save as MSS (8 mks)

MEYSA SYSTEMS AND SERVICES							
Technical information		Action taken					
Machine	Problems	found	Diagnostic checks	Solu	tions		
description							
Compaq / evo	hardwar	software	Memory video	1	Replacing vga		
	е						
6522			Faulty component	2	Installing drivers		
			VGA CARD				
Desktop	No display	<u> </u>	VGA CARD	3	Rebooting system		

- (ii) Format the table with border line colour red and choose double line (5mks)
- (iii) Shade the table to tight green colour for the first two rows and light blue shading for therest of the table (5mks)
- (c) Type the paragraph below, save it as computer and apply formatting as stated (4mks)

Computer Program is a set of instructions that direct a computer to perform some processing function or combination of functions. For the instructions to be carried out a computer must execute a program, that is, the computer reads the program, and then follows the steps encoded in the program in a precise order until completion. A program can be executed many different times, with each execution yielding a potentially different result depending upon the options and data that the user gives the computer.

- (i) The text "computer program" should be the title, change its case to upper case font TREBUCHET

  MS size 16, colour green (2mks)
- (ii). Find the word 'instructions' look for its meaning in the computer dictionary and finally replacethe word

with new meaning from the dictionary

(3mks)

(iii). Format the whole paragraph to justified alignment shading colour light green

(3mks)

NAME	BASIC PAY	DEPARTMENT	AGE	STATUS
Peter	15000	Computer	34	Single
John	17000	Computer	44	Married
Kamau	19000	Finance	33	Divorced
Charles	21000	Research	33	Single
Johns	23000	Research	25	Single
Thomas	35000	Commutor	26	Manniad
Thomas	25000	Computer	26	Married
Ann	27000	Finance	28	Married
Susan	29000	Finance	29	Divorced
Tina	31000	Research	24	Divorced
Andrew	33000	Computer	40	Single
Hardy	35000	Finance	20	Married

Njeri	37000	Finance	43	Single
Kimani	10000	Research	15	Single
Silamtoi	15000	Finance	35	Divorced
Tina	35000	Computer	25	Married
Moses	59000	Research	33	Single
Miriam	70000	Finance	56	Divorced
Maurice	32876	Computer	70	Divorced
Alphie	43876	Research	98	Divorced
Albert	48098	Research.	32	Single
Langat	6500	Computer	12	Single
Phenny	29000	Finance	70	Single

Hilda	32000	Computer	13	Married

2.

Create data base called personnel and create a table named department	(5mks)	
<b>124  </b> Page		

- (b) Create queries to determine (save each query using the alphabet numbers below)
  - i. Number of people with basic salary greater than 32,000=

(5mks)

- ii. Number of people with basic salary less than 45,000= AND come from computer department(5mks)
- iii. Names of people who are either married or single.

(4mks)

iv. Those whose salary fall between 25,000/= and 50,000=

(3mks)

v. Those whose name begin with letter M or end in letter S

(3mks)

- (c) (i) Create a query to compute the new salary if there is an increment of basic pay by 50% (7mks)
  - (ii) Filter using query those who earn above 33000/= and aged between 39 and 70

(5mks)

(d) (i) Create a form using form wizard using the Departmental table above.

(3mks)

(ii) Create a form in design view using the departmental table above on the form calculate the total basic

salary for the whole table, add current date and time on the form header

(5mks)

(iii) Create a report for THE ABOVE table using design view and print. (5mks)

## **ALLIANCE HIGH SCHOOL 2024 DETERMINANT**



## Kenya Certificate of Secondary Education

NAME		ADM
DATE	SIGN	TARGET
313/1		
CHRISTIAN RELIGIOUS E	DUCATION	
PAPER 1		
TIME: 2 ½ HOURS		

Kenya Certificate of Secondary Education

INSTRUCTIONS TO CANDIDATES	
Answer any five of the given questions.	
All answers <b>must be</b> written in the Answer Booklet provided.	
All questions carry equal marks.	
This paper consists of 2 printed pages.	
Candidates should check to ensure that all pages are printed as indicated and no questions are missing	
127	

1.	<b>L.</b> a) Give reasons why C.R.E as a subject is incorporated into the curriculum in Kenyan schools today.		
(8 Marks)		ks)	
	<b>b)</b> Explain the meaning of the expression, 'the Bible is the Word of God'.	(5 Marks)	
	c) On what occasions do Christians use the Bible?	(7Marks)	
2.	<ul><li>a) Briefly explain the significance of the events that took place on the night of the P</li><li>b) What qualities did Moses show during his call?</li><li>c) What lessons do Christians learn from the call of Moses?</li></ul>	assover. (6 <b>Marks</b> ) (9 <b>Marks</b> ) (5 <b>Marks</b> )	
3.	<ul><li>a) Give reasons why the Israelites asked Samuel to appoint a king for them.</li><li>b) Show reasons why Elijah was un-compromising in his attitude to Baal worship.</li><li>c) Why should Christians fight against the spread of devil worship in the society?</li></ul>	(7Marks) (8 Marks) (5 Marks)	
4.	<ul><li>a) What were the characteristics of true prophets in the Old Testament?</li><li>b) Give reasons why Amos proclaimed God's judgment on Israel and Judah?</li><li>c) What lessons do Christians learn from Amos' teachings on judgment?</li></ul>	(7 Marks) (6 Marks) (7Marks)	
5.	<ul> <li>a) What responses to God's call did Jeremiah exhibit in Jeremiah 4:4 – 19?</li> <li>b) Explain Jeremiah's teaching on the new covenant.</li> <li>Marks)</li> </ul>	(5 <b>Marks</b> )	
	c) How should a Christian respond when offered a job in a hardship area?	(9 Marks)	

6.	a) Give the roles of ancestors in	Fraditional African Society.	(9 Marks)
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- b) On what occasion were sacrifices offered in Traditional African Society? (6 Marks)
- c) What aspects of traditional religion have been integrated into the Christian faith? (5 Marks)



## Kenya Certificate of Secondary Education

NAME		ADM		
DATE	SIGN	TARGET		
DITTE		······································	••••	

313/2

**CHRISTIAN RELIGIOUS EDUCATION** 

PAPER 2

TIME: 2 ½ HOURS

Kenya Certificate of Secondary Education

130

INSTRUCTIONS TO CANDIDATES
Answer <b>any five</b> of the given questions.
All answers <b>must be</b> written in the Answer Booklet provided.
All questions carry equal marks.
This paper consists of 2 printed pages.
Candidates should check to ensure that all pages are printed as indicated and no questions are missing
131
THIS QUESTIONS WERE ACQUIRED, COMPILED AND SUPPLIED BY TOPLIGHT PUBLISHERS KENYA PANEL LIMITED

1.	a) Give the characteristics of the suffering servant of Yahweh according to prophet Isaiah (Isaiah 53).	
	(8 <b>M</b> ar	ks)
	b) In what ways did Jesus fulfill prophesies given to King David by Prophet Nathan?	(5 Marks)
	c) What is the relevance of God's promises to David to Christians today?	(5 Marks)
2.	a) Mention ways in which John the Baptist prepared the way for the Messiah.	(10 <b>Mark</b> )
	b) State reasons why Jesus was rejected in Nazareth.	(4 Marks)
	c) In what ways are church leaders put to test today?	(6 Marks)
3.	a) Give examples from the life and Ministry of Jesus which show that He promotedsocial eq	uality. (8 <b>Marks</b> )
	<b>b)</b> Explain how the disciples reacted to the use of parables in Jesus' teachings.	(6 Marks)
	c) What activities does the church engage in to demonstrate love for others?	(6 Marks)
4.	a) Relate the message of Peter on the Day of Pentecost.	(10 <b>Marks</b> )
	b) In what ways did the coming of the Holy Spirit transform the life of Peter on the Day of Po	entecost?
		(5 <b>Marks</b> )
	c) What activities of the church in Kenya show that the Holy Spirit is working amongthem?	(5 Marks)
_		(0.2.
5.	a) From the teachings of Jesus, what role would the Holy Spirit play?	(8 Marks)
	<b>b)</b> Describe the fruits of the Holy Spirit according to Galatians 5: 22 – 26.	(6 Marks)
	c) In what ways do Christians demonstrate the fruit of generosity?	(6 Marks)

- **6.** a) Explain how the unity of believers is expressed in the symbol of the body of Christ. (6 Marks)
  - **b)** State teachings of Peter concerning the people of God. (1<sup>st</sup> Peter 2:9 10) (6 Marks)
  - c) How do churches discipline those who cause disunity in the church today? (6 Marks)



## Kenya Certificate of Secondary Education

NAME	• • • • • • • • • • • • • • • • • • • •	ADM		
		TARGET		
101/1				
ENGLISH				
PAPER 1				
(FUNCTIONAL SKILLS)				
TIME: 2 HOURS				

Kenya Certificate of Secondary Education

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### **INSTRUCTIONS TO CANDIDATES**

Write your name and admission number in the spaces provided above

Answer **ALL** the questions in this paper in the spaces provided

### **FOR EXAMINER'S USE ONLY**

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

This paper consists of 6 printed pages.

Candidates should check to ensure that all pages are printed as indicated and no questions are missing

## Question 1

## **FUNCTIONAL WRITING(20 MARKS)**

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Write a letter to that friend explaining the situation. Also assist him prepare dinner in your absence.
away. You leave the key to your house with a neighbour who will give it to your visitor.
him for a day in your house. However, something very important comes up the material day and you have to be

A friend has written to say that he will be traveling to another country via Kenya. He hopes that you can host


#### **Question 2**

#### **CLOZE TEST (10 MARKS)**

The African business climate (1) unpredictable. Many contracts are difficult(2) enforce due to
inefficient judiciary(3) high level corruption. Africa is(4) by aid money from wealthy nations. To
cover(5)for this fact, developed countries media address the corruption issue by implying that African
leadership is(6) corrupt! Corruption is not an individual(7) It is a process; a systematic issue
that can only(8) addressed by discouraging the incentive behind it. Part of the (9) is the
developed nation willingness to bank all the stolen(10) from Africa.

#### **Question 3**

### **ORAL SKILLS (30 MARKS)**

 $(\ensuremath{\mathsf{xxxvii}})$  Read the following poem and then answer the questions that follow

## **Happy Baby**

Her lips suckle the nipples

Milk bubbles, foams and ripples

Little hands up in the air

Catch on the mother's hair

Sweet sensation rises in pressure

Tiny legs kick pleasure

Sleep comes gently and strong

Sleep whispers softly and long

21. Describe the rhyme scheme of the poem.	(2 Marks)
22. Give and illustrate two oral features of style.	(4 <b>M</b> arks)
23. Which two words would you stress in line 2, and why?	(2 Marks)
(xxxviii) For each of the following words, construct two sentences to bring out the difference in change the form of the word.  a. Produce	meaning. Do not (4 <b>Marks</b> )
<b>33.</b> Beat	
(xxxix) Suppose you are reciting a solo verse to a big audience, what problems are you likely to	encounter?

FOR MARKING SCHEME CALL SIR ABRAHAM **0729125181** 

vI) Ide	entify and ur	derline the	e word that is pronounced different in each of the following set.	(5 <b>Marks</b> )
	Sew	Sue	Sow	(3 Widiks)
_	Hair			
c)	Hard	Heard	Herd	
d)	Fort	Forty	Fought	
e)	Cause	Coarse C	ourse	
xli) Co	mplete the f	following di	ialogue with the most suitable expressions.	(10 <b>Marks</b> )
	u just witnes ured.	ssed an acc	ident. A matatu rammed into a lorry. Many passengers have been	seriously
Ma	atatu driver:	Is there a	nyone here with a mobile phone? We have to call the police imme	ediately.
Yo	u:			(1 Mark)
Ma	atatu driver:	Can you p	please call the police station and inform them about theaccident?	
Yo	u:			(1 <b>M</b> ark)
Po	lice officer:	Yes. This i	is Pangani Police Station. Constable Mwania speaking. Canl help y	ou?
Yo	u: Ye	s please. Th	nere has been a terrible accident.	
Ро	lice officer:	May I kno	ow who is calling please?	
Yo	u			(2 marks
••••••				
••••	••••••	•••••	140	

Police offic	ter: Where has the accident taken place?	
You:	On Gen. Waruinge Street, at the bumps next to Pumwani SecondarySchool.	
Police offic	eer: What happened?	
You:		(3 Marks)
Police offic	er: Really? Are there any casualties?	
You:		(2 <b>Marks)</b>
Police offic	er: Don't worry, we will be there as soon as possible. Meanwhile, I will call the	ambulance
	and also alert Kenyatta Hospital to be ready for casualties. Thank you very muc	h master
Lec	on for calling.	
You:		(1 Mark)



## Kenya Certificate of Secondary Education

NAME	• • • • • • • • • • • • • • • • • • • •	ADM
DATE	SIGN	TARGET
101/2		
ENGLISH		
(COMPREHENSION, LITERARY, APPREC	CIATION AND GRAMMA	AR)
PAPER 2		

TIME: 2 ½

## Kenya Certificate of Secondary Education

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

- Write your name and admission number in the spaces provided.
- Sign and write the date of examination in the spaces provided above.

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- Answer all questions in this question paper.
- Answers to all questions *must be* written in the spaces provided in this booklet.

#### For Examiner's Use Only

QUESTION	MAXIMUM SCORES	CANDIDATE'S SCORES
1	20	
2	25	
3	20	
4	15	
Total Score	80	

QUESTION 1 (20mks)

#### Read the passage below and answer the questions that follow

Cities and towns are experiencing massive population growth the world over receiving huge numbers of migrants ever year.

In 1950, urban population accounted for only 29 percent of the world population, according to the United Nations Educational Scientific and Cultural Organization (UNESCO). At the turn of the century, the figure had risen to 45percent. This was enough to declare the Twentieth Century the century of urbanization and city life. Now the figure is projected to hit 70 percent by 2025.

In Africa, urbanization is most intense in Algeria, Tunisia and South Africa, which have more than 50 percent of their population living in urban areas. Generally, cities in the developing world are growing at a rate of 3.5 per cent per annum.

These figures indicate that there is a continuous massive movement of people from rural to urban areas worldwide. Driven by the desire for better living conditions, they flock to cities in droves in search of greener pastures. But, slowly the <u>illusion</u> disappears, and is replaced by harsh realities of urbanism: unemployment or underemployment, crime, poverty, hunger and life in the slums.

To cope with this fast – moving wave of rural flight requires new strategies for urban planning and the use of urban spaces. Thus urban planners, policymakers and governments seek <u>pragmatic</u> and timely ways of addressing this challenge. The process of urbanization transforms land use and farming systems, patterns of labour force participation, infrastructural requirements, and natural resource systems. When cities grow, their population expands, putting a strain on food production.

As a way of easing the food shortage, many urban households, particularly the poor, have taken to growing food on small plots. Today, if you take a walk through some of the residential estates in Nairobi such as Ngara, Eastleigh and Buru Buru, you might be forgiven for thinking that a green revolution is under way. And on the outskirts of the city, green – houses and ponds compete for space with small gardens planted with flowers, vegetables and fruits. Banana plants and palm trees dwarf wrought – iron gates, their green dotting the skyline, Kale, cabbage and maize gardens sprout in the middle of urban squalor. In this unusual rare blend, urban features and rural agrarian patterns are combined in a new form of settlement and one might call 'garden cities.'

Although it is often not given much attention, urban agriculture is steadily increasing. The practice involves cultivating, processing and distributing food in and around a town or city. It also encompasses an array of activities including horticulture, aquaculture, animal husbandry and bee keeping.

(n) What are the challenges facing major cities and towns	(2mks)
(o) What does the mention of 70% by 2025 reveal?	(2mks)
(p) What do we learn about urbanization in Africa from the passage	(2 mks)
(q) Mention the reason for rural to urban migration	(2mks)
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(r)	How are urban households easing the problems of food shortage?	(3 mks)
(s)	What is meant by the term 'garden city?'	(1mk)
(t)	In note form, list the influences of urbanization	(4 mks)
 (u)	Urban populations accounted for only 29% of the world population (Rewrite the statement adding a question tag)	(1 mks)
(v)	Explain the meaning of the following words as used in the passage  i) Illusion	(3 mks)

ii)	Pragmatic
iii)	Squalor
QUESTION	N 2: THE COMPULSORY SET TEXT (25 MARKS)
Read the 6	excerpt below and answer the questions that follow. (25 marks)
you often	Keep that mobile phone on at all times, day and night, rain or shine. From now on, I will be calling even unexpectedly, but only through this number. So always have the mobile phone on. Unlike your ne, it is completely secure, which means I can talk to you on it freely."
"So you w	ill tell me your real name now? "Pastor Chiamaka asked.
"My real r	name, my real name-why? "shouted the caller, angry all of a sudden.
	y' yourself, "Pastor Chiamaka shouted back, also angrily, answering fire with fire. "If I don't have your, how can I even begin to ask for you were a need to do so to arise?"
'Were a n	eed to do so to arise, I would contact you," the caller told him.
"Ah, you d	can contact me, but I can't contact you? What is the matter? Are you afraid I might surprise you?"
"Shut you	r mouth!" snapped the caller.
"What did	you say?" Pastor Chiamaka asked.
"You hear	d me. Now get this: I want you to obey me, not to argue with me. You will not talk back to me like this
"R-r-right,	"Pastor Chiamaka stammered, suddenly tamed. "Y-y-yes, I do."
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"Splendid. So, Pastor Chiamaka, let me say what I was going to say if you had let me." Pleased by his quick victory the caller was inching back towards polite speech. "What I was going to say is..."He stopped. Pastor Chiamaka waited. i) Place this excerpt in its immediate context. (4 marks) ii) Using your knowledge of the rest of the text, explain one instance of irony evident in this excerpt. (3 marks) iii) Apart from irony, identify and illustrate another style used in the excerpt. (2 MARKS) iv) Identify and illustrate two-character traits common to both Pastor Chiamaka and the caller. (4 marks) v) List the content of the briefcase left by the caller for Pastor Chiamaka. (4 marks) vi) Which name did the caller identify himself with to Pastor Chiamaka? (1 mark) vii) Rewrite the following sentence in reported speech. (1 mark) "so you will tell me your real name now?" Pastor Chiamaka asked. viii) Who is Pastor Chiamaka? (2 marks) ix) Give the meaning of the following words as used in the excerpt. (4 marks) Unexpectedly Snapped Tamed Inching: **QUESTION 2 (25 marks)** 

c)	Place this excerpt in its immediate context	(3 mks)	
d)	Indentify and illustrate the character trait of the following characters	(4 mks)	
	147		

	i)Rank	
	ii)Nora	
••••		
e)	Who is in the kitchen and why has he come?	(3mks)
••••		
f)	Identify and illustrate the dominant theme in the excerpt.	(2mks)
••••		
g)	" being with Torvald is a little like being with papa" what does Nora r statement?	mean by this (2mks)
 h)	Explain an incidence of dramatic irony from the excerpt.	(2mks)
i)	Why is Nora quick to usher Dr. Rank out of the room?	(2 mks)
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j) 	"This dreadful thing is going to happen. "Rewrite in reported speech.	(1mk)		
k) 	Explain the dreadful thing that Nora fears might happen?	(2 mks)		
l) 	Explain the meaning of the following expressions as used in the excerpt.  (k) Make your mind easy –	(3 mks)		
	(l) I won't let him escape –			
	(m)It was no good –			
	(n) Dreadful -			
QUESTION 3: ORAL LITERATURE (20marks)				
Red	Read the narrative below and then answer the questions that follow.			

Once upon a time, all animals in the jungle were of the same plain colour but when they were invited by king lion for his son's wedding, they decided to decorate themselves for the occasion. The tortoise was given the task of making the dye to be used. Though he was slow, he was the most intelligent.

The big day was fast approaching but the tortoise had only managed to make one big pot of black dye. He called a meeting and they all decided to use the available dye to make various patterns in their skins.

The leopard was allocated the job of painting the rest of the animals. The zebra was the first on queue followed by the giraffe, then the donkey and all the other animals were to follow. The giraffe and the zebra were painted and they looked very beautiful.

Then the donkey's turn came but he was undecided on the pattern to choose. The leopard decided to paint him like a zebra and got down to work. He had a long line along the donkey's spine from head towards the tail. On reaching the tail, the donkey started giggling. The leopard continued and the donkey jumped and threw him his hind legs saying the brush was tickling and he could not contain himself any longer.

He had thrown his hind legs so hard that he hit the pot containing the dye. The dye spattered all over the animals on the queue. The cheetah got speckles all over his body, the leopard got spotted and the crow who happened to be passing by with an urgent letter for the king hanging on its neck was splashed by the dye which covered him the whole body apart from the neck where the letter was. On seeing this, the hyena started laughing but got a large splotch on his mouth.

All the animals rushed to the stream to try and wash out the dye but it was already dried and had become permanent. Nobody could get off the spots, streaks, speckles and splotches. And that is how the donkey was responsible for the various patterns we see on animal's bodies today.

a)	Classify the narrative above.	(2mks)
b)	Indentify and illustrate any two social aspects of society	from which this narrative is taken (4 marks)

c)	Indentify and illustrate any three features peculiar to oral narratives evident in this narrative.  (6mks)	
d)	Indentify and illustrate any two character traits of the Leopard. (4 mks)	
	Who would be the target audience of such a narrative (2mks)	

••••		
f)	If you wer actual field	re to collect this narrative from the field, what preparations would you make before the d work (2mks)
<u>Qι</u>	JESTION 4: G	GRAMMAR (15 mks)
(a)	meaning. (xlii)	The children welcomed the teachers.  with: The teachers)
	(xliii) (Begin	John does not take Lunch. His sister does not take Lunch. with: Neither)
	(xliv) (Rewri	Gatwiri asked, "Can we meet here tomorrow morning?" ite in direct speech)
••••	(xlv) (Rewri	This novel is far better than the one I bought last week. ite using the word 'superior')  152

(xlvi) It is not necessary to collect the garbage today. (Rewrite being: You do not)	
<ul><li>(b) Rewrite the following sentences to correct the errors.</li><li>1. Of the two books, the first is longest</li></ul>	
2. The quarter of the three girls sleeps earlier.	
3. I did not find any fellow colleagues in class when I arrived late.	
(c) Supply the appropriate question tags in the blank spaces in the followi (iv) We needn't worry about tomorrow,	ing sentences.
(v) Let me have a taste,	
(vi)They'll come early in the morning,	

se the words in bracket in their correct form to replace the underlined words.  4. The candidate was not popular amongst the electorate. (famous)		
(o) My mother accidentally met me along Jamhuri highway in the town (run)  See the words in bracket in their correct form to replace the underlined words.  24. The candidate was not popular amongst the electorate. (famous)  25. The vehicle that was moving very fast caused the accident. (speed)		
24. The candidate was <u>not popular</u> amongst the electorate. (famous)	o)	My mother <u>accidentally met</u> me along Jamhuri highway in the town (run)
24. The candidate was <u>not popular</u> amongst the electorate. (famous)		the words in bracket in their correct form to replace the underlined words
25. The vehicle that was moving very fast caused the accident. (speed)		·
	25.	The vehicle that was moving very fast caused the accident. (speed)



## Kenya Certificate of Secondary Education

NAME	•••••	.ADM
DATE	SIGN	TARGET
101/3		
ENGLISH		
PAPER 3		
2 <sup>1</sup> / <sub>2</sub> HOURS		

## **Instructions to candidates**

- a. Question one and two are compulsory.
- b. Select one question from the optional set texts.
- c. Where a candidate presents work on more than one optional text, only the first to appear will be marked.
- d. Each of your essays must not exceed 450 words.
- e. Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.
- f. Candidates should answer the questions in English.

	Either	
1.	Write a story ending with the following words when I look back at the events o	· · · · · · · · · · · · · · · · · · ·
	Or	
2.	Write a composition to illustrate the saying "Honesty is the best policy."	(20 Marks)
2. Com	pulsory Set Text	(20marks)
<u>THI</u>	<u>E SAMARITAN</u> by <b>John Lara</b>	
Discuss	the theme of <b>Bad Governance and Ineffective</b> in	Leadership as depicted in the play, The Samaritan, by
John La	ra	(20 marks)

Either;

3. OPTIONAL SET TEXTS.

A silent song and other stories, a)

(i) IMAGINATIVE COMPOSITION (COMPULSORY)

**(20 marks)** 

People with admirable traits stand out. Basing your illustrations on Vrenika Pather'S Ninema, write an essay to validate this assertion.

Or

b) An artist of the floating world by Ishiguru.20marks.

Discuss the use of Noriko's marriage negotiation as a means to drive this novel's plot forward while revealing Ono's past.



## **Kenya Certificate of Secondary Education**

NAME	 ADM		
DATE			
312/1			
GEOGRAPHY			
PAPER 1			
TIME 2 ¾ HRS			

## **CONFIDENTIAL**

School to avail map extract for Homa Bay 1:50,000 sheet 129 /2





## Kenya Certificate of Secondary Education

NAME		ADM	
<b>DATE</b>	SIGN	TARGET	•••••
312/1			
GEOGRAPHY			
PAPER 1			
2 ¾ Hours			

## Kenya Certificate of Secondary Education

## **INSTRUCTION TO CANDIDATES**

This paper consists of **two** sections **A&B**.

Answer <u>ALL</u> questions in section **A**. In section **B** Answer <u>QUESTION 6</u> and <u>ANY OTHER TWO</u> questions.

All answers must be written in the answer sheets provided.

This paper consists of 3 printed pages.

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

#### **SECTION A**

### Answer ALL questions in this section.

1.(a) Define weather

#### (2marks)

(b) State five factors considered when siting a weather station.

#### (5marks)

2.(a) State two ways that make it possible for geographers to study the earth's interior.

#### (2marks)

(b) State 3 changes that may occur in a rock after it has undergone metamorphism.

#### (3marks)

3.(a) Differentiate between folding and faulting.

#### (2marks)

(b) Citing an example on each period, state 4 orogenesisperiods in fold mountain formation.

### (4marks)

4.(a) Differentiate between a spring and a well.

## (2marks)

(b) State three ways by which springs develop.

### (3marks)

5. Give two ways in which mulching improves soil.

(2marks)

### **SECTION B**

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

6.Study the map of Homabay (1:50,000) sheet 129/2 provided. Answer the following questions.

(xii) (i) Calculate the area of the part of Olambwe Valley National Reserve shown on the map. (Give your answer in square kilometers).

#### (2marks)

(ii) What is the length of the Homa Bay municipality boundary?

#### (2marks)

(iii) Give six figure grid reference for the secondary trigonometric section on the Ruri Hills.

#### (2marks)

- (iv) Draw a rectangle that measures 10cm by 15cm to represent the area enclosed by Eastings 51 and 59 and Northings 33 and 45. On it mark and name the following features.
- g. Lake Victoria
- h. Ranyambala forests
- i. Secondary trigonometric station

j. River Ogongo

(5marks)

- (xiii) Using evidence from the map, state three functions of Homabay town (3marks)
- (xiv) (i) Name three types of vegetation shown on the map.

(3marks)

(ii) Identify three settlement patterns found in the area covered by the map.

(3marks)

(xv) Describe the relief of the area covered by the map. (5marks)

7. (a) Define the term vulcanicity

(2marks)

(b) Give four characteristics of a composite volcano.

(4marks)

(c) Describe how a lava plateau is formed.

(4marks)

(d) Explain four negative effects of vulcanicity.

(8marks)

- (e) You intend to carry out a field study of an area affected by vulcanicity.
  - (i) Give four sources of information that you would use in the preparation for the study

(4marks)

(ii) Give three factors that would make it difficult for you to collect accurate data during the field study.

(3marks)

8.(a) Give three agents of weathering

(3marks)

(b) Describe frost action as a process of weathering.

(4marks)

(c) Explain how an exfoliation dome is formed.

(5marks)

(d) Explain 3 factors that influence the rate of mass wasting.

(6marks)

(xvi) State four slow types of mass wasting.

(4marks)

(xvii) Give three positive effects of mass wasting.

(3marks)

9. (a) (i) State three factors that influence transportation of materials in the sea.

#### (3marks)

(ii) Draw a simple well labeled diagram of a sea wave.

#### (3marks)

(iii) Give three ways in which islands are formed.

(3

## marks)

- (b) Explain the following processes of wave erosion.
  - **3.** Hydraulic action

#### (3marks)

4. Solution

#### (2marks)

(c) Describe the formation of a spit.

## (5marks)

(d) Explain 3 economic importances of coastal landforms.

(6marks)

10. (a) State four physical factors that contribute to development of deserts.

## (4marks)

(b) Give four characteristics of desert landscape.

#### (4marks)

(c) Explain three factors that influence wind transport in the desert.

#### (6marks)

(d) Describe how a deflation hollow is formed.

#### (4marks)

- (e) You carried out a field study in a desert landscape.
  - (ii) State four preparations for your study.

#### (4marks)

(iii)List three water depositional features you identified.

(3marks)



## Kenya Certificate of Secondary Education

NAME		ADM
••••		
DATE	SIGN	TARGET
••••		
312/2		
GEOGRAPHY		
PAPER 2		
2 ¾ HOURS		

Kenya Certificate of Secondary Education

## **INSTRUCTIONS TO CANDIDATES**

This paper consists of two sections A&B

Answer ALL questions in section A. In section B Answer QUESTION 6 and ANY OTHER

TWO questions from this section

 $This\ paper\ consists\ of\ 3\ printed\ pages.$ 

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

## **SECTION A**

## Answer ALL questions in this section.

1.(a) What is environment?	(2marks)
(b) Identify two effects of the following environmental hazards.	
(i) Earthquakes	(2marks)
(ii) Nuclear wastes	(2marks)
2.(a) Name two species of hardwood forests grown in Kenya.	(2marks)
(b) State three factors that favour the development of softwood forest in Kenya.	(3marks)
3.(a) Define mining.	(2marks)
(b) Describe two factors that have influenced exploitation of minerals.	(4marks)
4.(a) Give two types of ground photographs.	(2marks)
(b) State two limitations of using photographs.	(2marks)
5.(a) Name two exotic dairy cattle breeds reared in Kenya.	(2marks)
(b) State two physical factors which favour dairy farming in Denmark.	(2marks)

## **SECTION B**

## Answer QUESTION 6 and any other TWO questions in this section.

6. The table below shows the vehicles moving past the D.C's gate on Monday between 8:30a.m to 8:30p.m.

Period	Isuzu	Leyland	Toyota	Nissan	Others	TOTAL
8:30 – 10: 30a.m	100	150	300	240	80	
2:30 – 4: 30p.m	40	60	70	20	80	
6:30 – 8: 30p.m	120	130	90	140	120	
TOTAL	260	340	460	400	280	

(xviii)	Find the grand total of vehicles moving past the gate on Monday.	(2marks)
(xix)	Draw a simple pie chart to show the type of vehicles moving past the g	ate on Monday
(radius	=3cm)	(8marks)
(xx)	Outline the merits of using a simple pie chart to represent the above data.	(5marks)
(xxi)	Apart from pie charts, give other five ways used to present statistical date.	(5marks)
(xxii)	Identify five methods of collecting statistical data.	(5marks)
7.(a)	Name the main types of natural forests in the world.	(3marks)
(b) Explain	n the significance of forests and forest products in Kenya.	(10marks)

<ul> <li>(c) What has Kenya government done to conserve and manage forest?</li> <li>.(i) State 5 factors influencing the distribution of natural forests.</li> <li>(ii) Define forest management.</li> </ul>	(5marks) (5marks) (2marks)
<ul><li>8(a) Define a mineral.</li><li>(b) Explain the forms in which minerals occur.</li></ul>	(2marks) (8marks)
<ul><li>(c) State five significance of minerals in Kenya.</li><li>(d) Students from Mtwapa High School went out for a field study in L. Magadi.</li></ul>	(5marks)
<ul> <li>(i) Name 3 preparations they made before the study.</li> <li>(ii) Identify 2 problems they might have encountered during the study.</li> <li>e.State 5 importance of studying geography through field work.</li> </ul>	(3marks) (2mark) (5marks)
<ul> <li>9.(a) (i) State three social factors which influence agriculture.</li> <li>(ii) Name two types of maize grown in Kenya.</li> <li>(b) (i) Name two areas in Kenya where maize is commercially grown.</li> <li>(ii) Describe the stages involved in the industrial processing of maize.</li> <li>(c) Identify 4 problems facing maize farmers in Kenya.</li> <li>(iv)(i) Explain ways through which the Kenya government assists small scal (6marks)</li> <li>(ii) State 4 ways of maize</li> </ul>	
<ul> <li>(ii) State 4 uses of maize.</li> <li>10.(a) (i) What is Natural vegetation.</li> <li>(ii) State two topographical factors influencing distribution of vegetation.</li> <li>(b) You are required to carry out a field study of vegetation around your school.</li> <li>24. State two objectives for your study.</li> <li>25. How would you record the findings in your study?</li> <li>(c) Draw a well labeled diagram to show vegetation zonation on a mountain slope.</li> <li>(d) (i) Highlight five adaptational features of tropical desert vegetation.</li> <li>(ii) Identify two economic importance of desert vegetation.</li> </ul>	(4marks) (1mark) (2marks) (2marks) (4marks) (8marks) (5marks) (4marks)



## Kenya Certificate of Secondary Education

NAME	••••••	ADM		
DATE	SIGN	TARGET	•••••	
311/1				
HISTORY AND GOVERNMENT	•			
PAPER 1				
2 ½ HOURS				

Kenya Certificate of Secondary Education

## **INSTRUCTIONS TO CANDIDATES**

- (v) This paper consists of **THREE** sections: **A, B** and **C**.
- (vi) Answer <u>ALL</u> the questions in section A, <u>THREE</u> questions from section B and <u>TWO</u> questions from section C.
- (vii) Answers to all the questions must be written in answer sheets provided. *This paper consists of 2 Printed pages.*

Candidates should check the question paper to ensure that all the papers are printed as indicated and no questions are missing.

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

Answer all the questions in this section in the answer booklet provided.

1.	State the main source of information in history and government on Kenyan communities.	(1 Mark)
2.	What was the main reason for the dispersal of the coastal Bantus from Shungwaya?	(1 Mark)
3.	Identify two customs acquired by the Bantu from their interaction with the Cushites.	(2 Marks)
4.	State the main archeological evidence to proof that there was contact between the Kenya Chinesein the early $16^{\text{th}}$ century. <b>Mark</b> )	an coast and the (1
5.	State two recommendations of the Devonshirewhitepaper of 1923.	(2 Marks)
6.	Give two reasons why the Akamba participated in the long distance trade.	(2 Marks)
7.	Name two leaders who led the Agyriama during their resistance against British occupation o (2 Marl	•
8.	Identify two rights of the marginalized groups as contained in the Kenyan constitution.	(2 Marks)
9.	List two conditions a person in Kenya must fulfil to vie for presidential elections	(2 Marks)
10.	Name two missionary societies that merged to form the alliance of missionary societies in B	ritish East Africa. (2 <b>Marks</b> )
11.	State two reasons why the Africans were not allowed to grow cash crops during the colonial	period. (2 <b>Marks</b> )
12.	Give two sources of Kenya law  Marks)	(2
13.	Name the engineer who supervised the construction of the Kenya – Uganda railway. Mark)	(1
14.	Identify two factors that led to the emergence of independent churches and schools in k colonial period.  Marks)	Kenya during the (2
15.	Why is the right to life the most important right in the Kenyan constitution?	(1 <b>Mark</b> )

#### **SECTION B (45 MARKS)**

#### Answer any three questions from the is section in the answer booklet provided

16. a. State three duties of the morans ar	nong the Maasai during thepre-c	colonial period. (3 Marks)
--	---------------------------------	----------------------------

b. Explain the social political systems of the Ameru during the pre-colonial period. (12 Marks)

17. a. Enumerate five factors that led to the decline of the Indian Ocean trade. (5 Marks)

b. Explain the positive impact of the Portuguese rule along the East African coast. (10 Marks)

18. a. Outline five roles played by women in the struggle for independence in Kenya. (5 Marks)

b. Explain five contributions of Wangari Maathai in nation building. (10 Marks)

19. a. Give three reasons why Africans refused to give their labour to white settlers. (3 Marks)

b. Explain the effects of colonial land policies on the people of Kenya. (12 Marks)

#### **SECTION C (30 MARKS)**

#### Answer any two questions from this section in the answer booklet provided

20. a. State five values of good citizenship.

(5Marks)

b. Explain five reasons that can lead to Kenyan citizenship being revoked. (10Marks)

21. a. Identify three features of the independence constitution of Kenya in 1962. (3Marks)

b. Explain six constitutional changes in Kenya between 1975 and 2011. (12Marks)

22. a. List three sources of county revenue.

(3Marks)

b. Discuss six reasons why devolved government in Kenya is very important. (12Marks)



## Kenya Certificate of Secondary Education

NAME	ADM		
DATE	SIGN	TARGET	
311/2			
HISTORY AND GOVERNMENT			
PAPER 2			
2 ½ Hours			

## Kenya Certificate of Secondary Education

## **INSTRUCTIONS TO CANDIDATES**

- (viii) This paper consists of **THREE** sections: **A, B** and **C**.
- (ix) Answer ALL the questions in section A, THREE questions from section B and TWO questions from section C.
- (x) Answers to all the questions must be written in answer sheets provided

This paper consists of 2 Printed pages.

Candidates should check the question paper to ensure that all the papers are printed as indicated and no questions are missing 170

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

Answer all the questions in this section in the answer booklet provided

1.	State two disadvantages of using electronic sources of information in history and gov	ernment.
		(2 Marks)
2.	Why was the Homo habilis referred to as "Able man"?	(1
	Mark)	
3.	State two early agricultural practices used in Britain before 1850.	(2 Marks)
4.	Name one African country that thwarted European invasion and occupation in the 19	thcentury (1 <b>Mark</b> )
5.	State two causes of the Chimuregawar.	(2
	Marks)	
6.	Identify two disadvantages of electricity as a source of energy	(2
	Marks)	
7.	List two negative effects of urbanization in Cairo	(2 Marks)
8.	What was the main reason for the use of direct rule in Zimbabwe?	(1 <b>Mark</b> )
9.	State two ways in which the steam engine contributed to industrial revolution in Brita	ain. (2 <b>Marks</b> )
10.	Enumerate two economic factors for the growth of the MweneMutapa kingdom.	(2 <b>Mark</b> )
11.	Identify the main challenge facing industrialization in third world countries	(1 <b>Mark</b> )
12.	Outline two methods used by the international community to hasten majority rule in	South Africa.
		(1 <b>Mark</b> )
13.	Why in the camel referred as the ship of the desert.	(1 <b>M</b> ark)
14.	What was the role of the Tuareqs during the Trans-Saharan trade	(1Mark)
15.	State two results of the Berlin conference of November 1884 to Feb 1885.	(2 <b>Mark</b> )
16.	Identify the contribution of Andreas Vesalius in the field of medicine	(1 <b>Mark</b> )
	SECTION B (45 MARKS)	
	Assessment the second s	
	Answer any three questions from this section in the answer booklet provided.	
17.	a. Identify three types of trade.	(3 Marks)
	b. Describe the organization of the Trans Sahara trade	(12 Marks)
		( /
18.	a. Give three ways through which trade contributed to the rise of the Asante kingdon	n in the 18 <sup>th</sup> century
	are the three ways through which trade contributed to the rise of the rounte kinguon	(3 Marks)
	b. Describe the social organization of the Asante	(12 <b>Marks</b> )
	== = =================================	λ=,
19	a. Identify five causes of food shortage in third world countries.	(5 <b>Marks</b> )
	b. Explain the factors that led to Agrarian revolution in the USA.	(10 <b>Marks</b> )
		( 2)
	171	

20.	<ul><li>a. State three characteristics of industrial revolution in Europe.</li><li>b. Explain six factors hindering industrialization in third world countries.</li></ul>	(3 Marks) (12Marks)
	SECTION C (30 MARKS)	
	Answer any two questions from this section in the answer booklet provided.	
21.	a. Enumerate the terms of the Lochner - Lewanika treaty of 1890 b. Explain the results of Lewanika's collaboration with the British.	(3 Marks) (12Marks)
22.	<ul><li>a. State three characteristics of indirect rule</li><li>b. Discuss six reasons why indirect rule failed in SouthernNigeria</li></ul>	(3 Marks) (12Marks)
23.	<ul><li>a. What were the factors for the growth of nationalism in Ghana?</li><li>b. Explain the role of Kwame Nkrumah in the struggle of Ghana's independence in 1957. (10</li></ul>	(5 Marks) <b>Marks</b> )



Kenya Certificate of Secondary Education

441/2

**HOME SCIENCE** 

(CLOTHING CONSTRUCTION)

PAPER 2

(PRACTICAL)

Time 2<sup>1/</sup><sub>2</sub> hours

Kenya Certificate of Secondary Education

# **CONFIDENTIAL**

## **INSTRUCTIONS TO SCHOOLS**

The school is advised to provide the candidates with the following materials.

- 1. Plain light weight cotton fabric 50cm by 90 cm wide.
- 2. Sewing thread to match fabric.
- 3. Sewing machines at least 4 per 10 students.



## Kenya Certificate of Secondary Education

NAME	••••••	ADM		
DATE	SIGN	TARGET	. <b>.</b>	
441/1				
HOME SCIENCE				
Paper 1 (Theory)				
Time: 21/4 Hours				

## FORM 4

Kenya Certificate of Secondary Education

### **INSTRUCTIONS TO THE CANDIDATES**

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

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

Answer ALL the questions in section A and B

Answer any **TWO**questions from section C

## For examiners use only

Section	Questions	Maximum	Candidates score
		score	
Α	(z) 16	40	
В	17	20	
С		20	
		20	
	TOTAL SCORE		

This paper consists of 7 printed pages.

Candidates should check to ensure that all pages are printed as indicated and no questions are missing

## **SECTION A (40 MARKS)**

## Answer $\underline{\textit{ALL}}$ questions in this section in the spaces provided

5.	Mention two functions of cholecalciferol in the body.	(2 Marks)
6.	Suggest three causes of malnutrition.	(3 Marks)
7.	What are the effects of immersing a hot aluminium frying pan in cold water?	(2 Marks)
8.	Explain three forms of advertisements.	(2 Marks)
9.	Write the following abbreviations in full  a. BCG	(2 <b>M</b> arks)
10.	b. TBA  Name two methods which could be used to serve meals at home.	(2 Marks)
•••••	177	

11. What are the determinants of safe parenthood?	(3 Marks)
<b>12.</b> Identify three points to bear in mind when buying land for a family house.	(3 Marks)
13. State three basic instructions on the use of medicines.	(3 Marks)
14. Give three advantages of using credit cards.	(3 Marks)
<b>15.</b> Name four fabrics that should not be wrung during laundering.	(2 Marks)
<b>16.</b> State three functions of pressing cloth.	(3 Marks)
17. State two qualities to look for when choosing a stiletto.	(2 Marks)

18. Identify six substances that are added to soap during manufacturing.	(3 Marks)
<b>19.</b> Give two ways of purifying water for small scale use.	(2 Marks)
<b>20.</b> Differentiate between food fortification and food supplements.	(2 Marks)

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

## **Compulsory**

21. You are preparing to host your grandparents over the weekend.	
i.Describe the method you would use to clean a varnished wooden table to be used in the dir	nning room.
(6 Marks)	
ii. Give six principles you would observe when removing stains from the table clothe to be used	d.
	(6 Marks)
iii.Outline the procedure you would use when cleaning a toilet to be used by your grand paren	ts
	(8 Marks)

	SEC	CTION C	(40 MARKS)	
	Ans	swer <u>AN</u>	IY TWO questions from this section in the spaces provided after question 20	0.
22.	a) \	What do	the following terms mean as used in consumer education.	
		(xxiii)	Consumer	
		(1	Mark)	
		(xxiv)	Goods	(1 <b>Mark</b> )
		(xxv)	Services	(1 <b>Mark</b> )
	b)	Explai	n four sources of information for the consumer.	(8 Marks)
	c)	(i) Def	ine a budget.	1 Mark)
		(ii) Exp	lain four factors that may affect a budget.	(8 Marks)
23.	a)	Give fo	our symptoms of food poisoning.	(4 Marks)
	(xi)	Explair	four causes of food spoilage.	(8 Marks)
	(xii	) Sugges	t eight measurers to take in the prevention of food poisoning.	(8 Marks)
24.	a)	List thr	ee types of scissors used in clothing construction.	(3 Marks)
	26.	Identi	fy three methods of transferring pattern Markings on a fabric.	(3 Marks)
	27.	Give t	hree features of well made permanent stitches.	(3 Marks)
	28.	Witho	ut using a diagram outline how to make a double stitched seam.	(11 Marks)

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# **ALLIANCE HIGH SCHOOL 2024 DETERMINANT**



# Kenya Certificate of Secondary Education

NAME	•••••	ADM
DATE	SIGN	TARGET
441/2		
HOMESCIENCE (CLOTHING AN	ND TEXTILES)	
PAPER 2		
PRACTICAL		
TIME: 2½ HOURS		

Kenya Certificate of Secondary Education

This paper consists of 2 printed pages.

Candidates should check to ensure that all pages are printed as indicated and no questions are missing

A pattern of a girl's skirt is provided. You are advised to study the sketches, the question paper and lay out carefully before you begin the test.

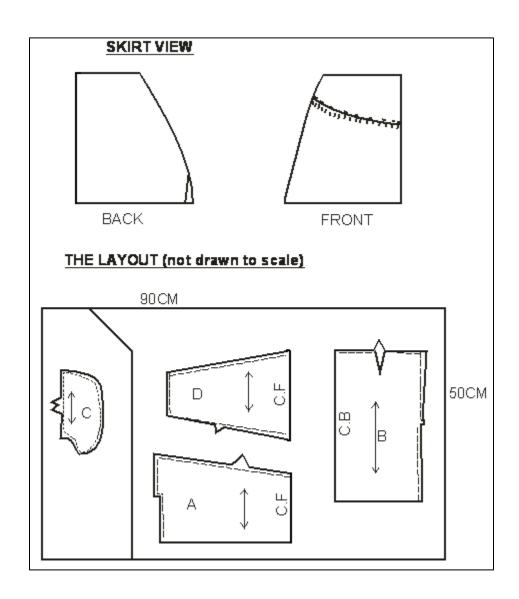
#### **MATERIALS PROVIDED**

- 1. Pattern pieces
  - A. Skirt front
  - **B.** Skirt back
  - C. Pockets
  - **D.** Front yoke
- 2. Light weight cotton fabric 50cm by 90cm wide.
- **3.** Sewing thread to match the fabric

#### **THE TEST**

- (xiii) Using the materials provided, cut and make the right half of the skirt to show the following processes.
- (xiv) The preparation of the gathers on the skirt front piece.
- (xv) Attachment of yoke piece to the skirt front piece using a neatened overlaid seam. Use loop stitches.
- (xvi) Attachment of front pocket piece to the skirt front and back pocket piece to the skirt back.
- (xvii) The making of an unneatened open seam at the side above and below the pocket mouth.
- (xviii) The joining of the pocket bag seam (do not neaten)
- (xix) Use preparation of the skirt hem and slip hemming it.

At the end of the examination, firmly sew onto your work on a single fabric a label bearing your **Name** and **admission Number**. Remove the needles and pins from your work then fold it neatly.



# **ALLIANCE HIGH SCHOOL 2024 DETERMINANT**



# Kenya Certificate of Secondary Education

NAME	•••••	ADM
DATE102/1	SIGN	TARGET
KISWAHILI		
Karatasi 1		
Muda: Saa 1¾		

Andika insha MBILI. Insha ya KWANZA ni ya LAZIMA.

Chagua insha moja nyingine kutoka tatu zilizobaki.

Kila Insha isipungue maneno 400.

Kila Insha ina alama 20.

# **INSHA 102/1**

### 1. Lazima:

Wewe ni mwenyekiti wa jopo lililoteuliwa kuchunguza chanzo cha utovu wa usalama kijijini Sokoto. Andika ripoti maalum /rasmi kuhusu jambo hili.

- Magonjwa mengi yanasababishwa na mitindo ya kisasa ya maisha. Jadili.
- 3. Tunga kisa kitakachodhihirisha maana ya methali: Mchagua nazi hupata koroma.
- **4.** Andika insha itakayoanza kwa maneno haya:

Milipuko mikubwa ilisikika pu! Pu! Puu! Kisha niliwaona watu wakikimbia kuelekea pande zote...

# **ALLIANCE HIGH SCHOOL 2024 DETERMINANT**



# **Kenya Certificate of Secondary Education**

NAME	•••••	ADM	•••
<b>DATE</b>	SIGN	TARGET	•••
KISWAHILI			
Karatasi ya 2			
MUDA: SAA 2 ½			

# **MAAGIZO**

- 1. Andika **jina lako** na **namba yako** katika nafasi ulioachiwa hapo juu.
- 2. Weka **sahihi yako** na **tarehe** ya mtihani katika nafasi ulizoachiwa.
- 3. Jibu maswali yote.
- 4. Majibu yaandikwe katika nafasi zilizoachwa wazi katika kijitabu hiki cha maswali.

## Kwa matumizi ya mtihani pekee.

swali	upeo	alama
1	15	
2	15	
3	40	
4	10	
Jumla	80	

Karatasi hii ina kurasa 11 zilizopigwa chapa. Watahiniwa ni lazima waangalie kama kurasa zote za karatasi hii zimepigwa chapa sawasawa na kuwa maswali yote yamo.

### 1. **UFAHAMU:** (Alama 15)

#### Soma kifungu kifuatacho kisha ujibu maswali yanayofuatia

Mateso ya wanawakiwa ni suala la kijamii linalofaa kutazamwa kwa darubini kali. Hata hivyo wanaoathirika zaidi ni watoto ambao bado wako katika umri unaohitaji kulelewa na kupewa mahitaji ya msingi kama mavazi, malazi, elimu na mengine anuwai. Hali ya kuachwa na wazazi imekuwa ikizikumba jamii tangu enzi za mababu na kila itokeapo, wanajamii huipokea kwa mitazamo tofautitofauti, hivyo kuwafanya wanawakiwa kuathirika sana.

Baadhi ya jamii zina imani za kijadi pamwe na mila zilizochakaa zinazozifanya kuamini kuwa baadhi ya vifo hutokana na laana. Wengine huchukulia kuwa mwendazake ameondolewa na ulozi. Imani kama hizi huifanya jamii kuwatia watoto walioachwa katika mkumbo ule ule, hivyo kuwaangalia kwa macho yasiyo ya kawaida. Hili husababisha dhana gande. Hali hii husababisha kuwachukulia watoto kama wanaotoka katika kizazi kilicholaaniwa. Jamii basi hukosa kuwapa watoto hawa stahiki yao. Hata

wanapojitahidi kuiwania nafasi yao, waliowazunguka huwavunja mioyo. Jitihada zao huishia kuwa si chochote kwa kuwa jamii inawatazama kama waliolaaniwa.

Punde baada ya mzazi mmoja au wote wawili waendapo wasikorudi, inatarajiwa kwamba aliyeachiwa mtoto, awe mzazi wake, mwanafamilia au jirani awajibike na kumtunza mwanamkiwa. Kunao kadha wa kadha wanaowajibika — ninawavulia kofia. Hata hivyo wengi hutelekeza jukumu hili walilopewa na Muumba. Si ajabu basi kuona kuwa idadi ya watoto wanaozurura mitaani inazidi kuongezeka kila uchao. Ukichunguza utakuta kuwa wengi wa watoto hawa ni waliopotelewa na wazazi wao. Inakera zaidi kugundua kuwa baadhi ya watoto hawa wana mzazi mmoja. Kwamba mke au mume wa mtu ameaga, au iwe kwamba mzazi mmoja alimzaa mtoto na kumwachia mwenzake mzigo wa ulezi, aliyeachiwa ana jukumu la kumpa mwanawe mahitaji ya msingi. Machoni pa Jalali, kila anayeupuuza wajibu huu ana hukumu yake siku ya kiama!

Ni haki ya kila mtoto kupata elimu. Katika katiba ya Kenya mathalan, elimu ya msingi, yaani kuanzia shule ya chekechea had kidato cha nne ni ya lazima. Tangu hapo hata hivyo, jamii zimekuwa zikiwanyima wanawakiwa wengi elimu. Kwamba kunao wachache wanaowaelimisha baadhi ya wanawakiwa, ni kweli. Hata hivyo, wengi hukosa hata wa kuwapeleka katika shule ya chekechea, hivyo kuishia kutojua hata kuandika majina yao. Mfikirie mtu katika karne ya 21, asiyejua kusoma wala kuandika! Nani ajuaye, huenda huyo mwanamkiwa asiyepelekwa shuleni ndiye angalikuwa profesa, daktari, mwalimu, rubani au msomi mtajika na mtaalamu wa uwanja muhimu katika jamii!

Kila mtoto ana haki ya kulelewa hadi kufikia utu uzima kabla ya kupewa <u>majukumu</u> mazito. Katika katiba ya Kenya, utu uzima, ulio umri wa kuanza kufanya kazi huanzia miaka 18. Wanaohakikisha watoto hawa wametimiza utu uzima kabla ya kufanyishwa gange ngumu wanafaa pongezi. Hata hivyo wanawakiwa wamekuwa wakitumiwa na wengi kama punda wa huduma. Wanaaila wengine huwachukua wanawakiwa kwa machozi mengi wazazi wao waagapo nakuapa kuwahifadhi na kuwatunza wana wale wa ndugu zao, kumbe ni machozi ya simba kumlilia swara! Hata kabla ya mwili wa mzazi mhusika kuliwa na viwavi, mateso kwa mtoto yule huanza, akawa ndiye afanyaye kazi zote ngumu. Utakuta watoto wao wamekaa kama sultan bin jerehe huku mwanamkiwa yule akiwapikia, kuwafulia nguo, kudeki, karibu hata awaoshe miili! Kazi kama zile za shokoa huwa za sulubu na aghalabu husindikizwa kwa matusi yasiyoandikika.

Baadhi ya waja walionyimwa huruma huwahadaa wanawakiwa na kuwapeleka ng'ambo wakitumia vyambo, kuwa wakifika kule watapata kazi za kifahari. Maskini wale hushia kushikwa shokoa, wakawa watumwa katika nyumba za waajiri wao, bila namna ya kujinasua. Wengine hushia kutumiwa kama watumwa wa 'kimapenzi' katika madanguro, miili yao ikawa ya kuuziwa makahaba waroho wasiojali utu. Kujinasua kule huwa sawa na kujitahidi kuokoa ukuni uliokwishageuka jivu, maadamu wanawakiwa aghalabu hukosa watu wenye mioyo ya huruma ya kuwashughulikia. Wengi huitumia methali 'mwana wa ndugu kirugu mjukuu mwanangwa' kuwapuuzilia mbali wanawakiwa ambao hukimbiliwa tu wabinafsi hawa wanapofaidika wenyewe.

M	aswali	
a)	Ipe taarifa hii anwani mwafaka.	(alama 1)
<b>b</b> )	Eleza dhana ya mwanamkiwa kwa mujibu wa kifungu.	(alama 2)
<b>c</b> )	Eleza imani za kijadi kuhusiana na wanawakiwa.	(alama 2)
<b>d</b> )	Jadili masaibu yanayowakumba wanawakiwa.	(alama 4)

Eleza	haki mbili za kikatiba zilizokiukwa kuhusiana na wanawakiwa.	(alama 4)
Eleza	maana ya msamiati ufuatao kulingana na kifungu.	(alama 2)
i)	Inakera	
ii)	Majukumu	

## 2. **UFUPISHO:** (Alama 15)

# Soma kifungu kifuatacho kisha ujibu maswali

Runinga kama kifaa kingine chochote cha mawasiliano kina manufaa yake. Kwanza kabisa, ni nyenzo mwafaka ya kufundishia. Vipindi vinavyopeperushwa katika runinga huwa na mafunzo kemkemu kwa mtu wa kila rika. Halikadhalika, runinga huweza kuleta vipindi ambavyo huwafahamisha watu mambo yanayoendelea katika mazingira yao na duniani. Aidha, runinga ikitumika pamoja na michezo ya video huauni katika ukuzaji na ustawishaji wa stadi ya kujifundisha au kujielimisha. Michezo ya video, hasa ya kielimu, huwafanya watu kujenga umakini pamoja na kuchua misuli ya ubongo na kuwafanya watu kuwa macho wanapofanya kazi.

Fauka ya hayo, televisheni ni chemchemi bora ya kutumbuiza na kuchangamsha. Hakuna mtu asiyependa kuchangamshwa. Televisheni ni mojawapo ya vyombo mwafaka vya kutekeleza hayo kutokana na vipindi vyake. Uburudishaji huu huwa ni liwazo kutokana na shinikizo na migogoro tunayokabiliana nayo kila siku. Uburudishaji huu hupatikana kwa urahisi majumbani mwetu.

Vivyo hivyo, runinga hutumika kama nyenzo ya kuendeleza utamaduni, kaida na amali za jamii. Vingi vya vipindi vya runinga huwa ni kioo ambacho huakisi mikakati na amali za jamii.

Kwa upande mwingine, hakuna kizuri kisichokuwa na dosari. Licha ya manufaa yake, televisheni imedhihirika kuwa na udhaifu wake. Kwanza, baadhi ya vipindi vya runinga na video hujumuisha ujumbe usio na maadili, kama vile matumizi ya nguvu za mabavu, ngono za kiholela, lugha isiyo ya adabu, ubaya wa kimavazi na maonevu ya rangi, dini, jinsia, kabila na utamaduni. Si ajabu kuwa baadhi ya vijana wetu wanaiga baadhi ya mambo haya. Vijana wetu siku hizi wameingilia ulevi wa pombe na afyuni, ngono za mapema kabla ya ndoa na mavazi yanaowaacha takribani uchi wa mnyama. Wengi wamekopa na kuyaiga haya kutoka katika runinga. Ukiwauliza wafanyacho, watakujibu kuwa ni ustaarabu kwani wameupata katika runinga.

Matumizi ya runinga na michezo ya video yasiyodhibitiwa huweza kuwa kikwazo cha mawasiliano bora miongoni mwa familia. Matumizi kama haya huwapa wanafamilia fursa ya kujitenga. Imedhihirika kuwa runinga haichangii kujenga uhusiano bora wa kijamii. Ukilinganisha na vyombo vingine vya burudani ambavyo hutoa nafasi ya watu kutangamana na kujenga uhusiano bora, televisheni haichangii haya. Badala yake, tajriba ya televisheni huwa ya kibinafsi. Hali hii inapotokea katika kiwango cha familia, televisheni inaweza kutenganisha wazazi na watoto wao.

Halikadhalika, runinga na video aghalabu hueneza maadili yasiyofaa. Mathalani, baadhi ya vipindi vya televisheni huendeleza hulka ya kuhadaa, ngono za kiholela, kuvunjika kwa ndoa, n.k. Hulka hizi zisizoendeleza maadili ya kijamii huchukuliwa kama zinazofaa na zinazofuatwa na waliostaarabika. Huu ni upotovu.

Isitoshe, baadhi ya matangazo huhimiza matumizi ya dawa za kulevya kama tembo na sigara. Vitu hivi vinapotangazwa, hupambwa kwa hila na udanganyifu mwingi ambao huwavutia vijana na watoto wengi. Si ajabu mtu anapouliza wanaotumia vileo hivi walivyoanza, watajibu kutokana na athari za matangazo katika runinga na vyombo vingine.

Utafiti umeonyesha kuwa vipindi vya runinga na video ni chanzo cha matumizi ya nguvu za mabavu miongoni mwa wanafunzi. Wazazi wengi huchukulia vibonzo katika televisheni kuwa vinalenga kuburudisha tu na havina ubaya wowote. Lakini ukweli ni kuwa vipindi vingi vya vibonzo hushirikisha matumizi ya hila na nguvu za mabavu. Haya huibusha hamu ya vijana na watoto huyaiga.

e.		
Fupisha aya tatu za kwanza za (manenc	70 – 75)	(alama 7, 2 za utiririko)
Matayarisho		
Jibu		
	10/	

Kwa hivyo, ni muhimu wazazi na jamii kutambua madhara ya televisheni. Utambuzi huu

utawafanya wawaelekeze vijana na watoto jinsi ya kutumia televisheni na video ili kuepukana na madhara

Eleza udhaifu wa runinga na video. (maneno 50 – 51)	(alama 5, 1 ya utiririko)	
Matayarisho	, , , , , , , , , , , , , , , , , , ,	
Wide and the second sec		

IATUMIZI YA LUGHA:  (alama 40)  Taja aina mbili kuu za ala za kutamkia sauti  (alama 2
Taja aina mbili kuu za ala za kutamkia sauti (alama 2
Taja mfano mmoja mmoja wa sauti zifuatazo (alama 2
Kimadende
Kipasuo kwamizo
Huku ukitoa mfano, eleza maana ya sentensi sahili (alama 2
196

d)	Ainisha mofimu katika neno lifuatalo	(alama 3)
e) 	TulimpikiaAinisha vitenzi katika sentensi: Kitabu anachotaka kusoma ki mezani	(alama 3)
<b>f</b> )	Tunga sentensi moja ukitumia kiunganishi kiteuzi	(alama 2)
<b>g</b> )	Nomino zifuatazo zimo katika ngeli gani?  a) Uzi	(alama 2)
	b) Muda	
h)	Tumia 'o' rejeshi ya kati katika sentensi ifuatayo Watu ambao walifika jana ni wale ambao walitoka mbali	(alama 2)
i)	Onyesha shamirisho kipozi na ala katika sentensi ifuatayo Mwindaji haramu alimuua ndovu kwa bunduki	(alama 2)

<b>j</b> )	Changanua sentensi ifuatayo ukitumia mistari au mishale Kilipikwa jana jioni	(alama 3)
k)	Andika sentensi ifuatayo katika hali yakinishi Msingesoma kwa bidii, msingepita	(alama 2)
l)	Tunga sentensi moja kudhihirisha dhamira/jukumu hili Rai/ombi	(alama 2)
 m)	Ainisha vishazi katika sentensi ifuatayo Mtoto ambaye alianguka jana ana maumivu mengi	(alama 2)
n)	Onyesha matumizi yoyote mawili ya kiwakifishi: koma/kituo	(alama 2)

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o)	Tumia neno 'Nairobi' kama	(alama 2)
	a) Nomino	
	b) Kielezi	
<b>p</b> )	Tunga sentensi moja kutofautisha maana ya kuku na gugu	(alama 2)
<b>-</b> <b>q</b> )	Onyesha matumizi ya kiambishi -ji- katika sentensi	(alama 2)
	Mwongeleaji stadi anajishaua sana.	
<b>r</b> )	Andika katika usemi wa taarifa	(alama 2)

s) Unda nomino kutokana na kitenzi Safari	(alama 1)	
ISIMUJAMII:	(alama 10)	
Nipe chai, andazi mbili na egg moja  a) Taja sajili inayorejelewa na maneno haya	(alama 2)	
b) Fafanua sifa nne zinazohusishwa na sajili hiyo	(alama 8)	

·	 	
	 <del> </del>	

# **ALLIANCE HIGH SCHOOL 2024 DETERMINANT**



# Kenya Certificate of Secondary Education

NAME		ADM		
DATE KIDATO CHA NNE	SIGN	TARGET	•••	
KARATASI YA TATU				
FASIHI				
MUDA: SAA 2 <sup>1</sup> / <sub>2</sub>				

# Maagizo.

- a) Jibu maswali **manne** pekee.
- b) Swali la **kwanza** ni la **lazima**.
- c) Maswali mengine **matatu** yachaguliwe kutoka sehemu **nne** zilizobaki; yaani: tamthilia, hadithi fupi, ushairi na fasihi simulizi..
- d) Usijibu maswali mawili kutoka sehemu moja.
- e) Kila swali lina alama 20.
- f) Karatasi hii ina kurasa **sita** zilizopigwa chapa.
- g) Watahiniwa ni lazima wahakikishe kwamba kurasa zote za karatasi hii zimepigwa chapa sawasawa na kuwa maswali yote yamo.

#### SEHEMU YA A: SWALI LA LAZIMA

# SEHEMU YA A: TAMTHILIA YA BEMBEA YA MAISHA (TIMOTHY M. AREGE)

### JIBU SWALI LA 1 AU 2

1. "Mwache mtoto apumzike. Hivi atayashika mangapi?"

(a)Eleza muktadha wa dondoo hili.	(alama 4)
(b)Fafanua toni ya dondoo hili.	(alama 3)
(c) Eleza sifa za mnenewa.	(alama7)
(d) Mnenaji ana umuhimu upikatika tamthilia?	(alama 6)

#### Au

2.Tamthilia ya Bembea ya maisha inaashiria mabadiliko mengi maishani.Jadili jinsi mabadiliko haya yanavyojitokeza. (alama20)

# SEHEMU YA B: HADITHI FUPI. MAPAMBAZUKO YA MACHWEO NA HADITHI NYINGINE.

# Jibu swali la 3 au 4

3.Nilisikia kama maruweruwe,"Mamangu eeh!Mama eeh!"....

(a) Eleza muktadha wa dondoo.	(alama 4)
(b) Pambanua mbinu mbili za lugha zinazojitokeza katika dondoo.	(alama 4)
(c) Fafanua matukio yaliyomfanya mnenaji kuyanena maneno yale.	(alama 6)
(d) Jadili sifa za mnenaji wa maneno haya.	(alama 6)

#### Au

- 4. Eleza matatizo yanayomkumba mtoto msichana kwa mujibu wa hadithi zifuatazo:
  - a) Sabina
  - b) pupa
  - c) kifo cha suluhu
  - d) Ahadi ni deni

#### SEHEMU YA C: USHAIRI

#### Iibu swali la 5 au 6

# 5.Soma shairi hili kisha ujibu maswali yanayofuata:

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)
(vi)	Elezea maana ya maneno yafuatayo.	(alama 2)
	(a) Dibaji	

(b) Harara

AU

# 6.Soma shairi hili kisha ujibu maswali yanayofuata.

Nimechoka Nilivyofikisha hapa, na juu kupandishwa Na kwa hila gani, au, zilipofungwa Ncha za waya hii ngumu ya maisha, sijui.

Wanadamu wameinama. Wanasali kwa haraka sasa. Utafikiri wanahesabu mchanga utakaojaza kaburi langu. Vichwa vyeupe vinacheka. Kingine kinasema tena: "Mnaliona Hilo! Joga!" Vichwa vinachela. Wanasali. "Nyinyi nyote hamna akili!Mnaniudhi! Hamwoni hali yangu!" Napiga kelele.Lakini vichwa Havitishi,na wanadamu hawatingishiki.

Sauti ya baba inasema kwa msisitizo "Najua utafika wakati itakulazimu kudondoka.

"Lakini unazo nguvu bado,na usikate tamaa, Ila usitegemee kusifiwa au kusaidiwa; Vichwa vyote hivi vilidondoka kutoka umbali huo, Nawe kudondoka,utadondoka!

Ninaendelea kuning'inia.Nimechoka.Mikono Inaniuma;hatari ya vitimbo.Vinacheka.Wanasali Sasa wanaimba.Sitaki nyimbo zao;maana Mimi bado nimeniong'inia na vitimbo having'oki. Lakini pole pole ninaanza kutabasamu. Sijafikia hatua ya kucheka;maana nimechoka, Kichomi kimenipata na sijadondoka

Lakini najiona nimening'inia kama ndege Aliyenaswa na mtego wa mtoto mdogo Mimi,Lakini ni mwanadamu na akili zangu Timamu.Ninaweza kudondoka, kama nikipenda.

Lakini ninaogopa chini yangu naona miti Iliyochongwa ikifuata usawa wa waya hii, Ikingoja kwa hamu,kama mshikaki kunichoma, Kunitoboa na kufurahia kimya kimya, Uzuri wa kupita katika mwili mwororo wa binadamu. Lazima nishike kwa nguvu nisianguke kama kifurushi Cha pamba cha mtoto mdogo kilichokwisha pimwa.

Mikono inaniuma, na waya imekwishanikata vidole. Damu imetiririka hadi kwapani;kujipangusa siwezi. Nimechoka.Kadiri niendeleavyo kunig'inia, ndivyo Sura yangu ionyeshavyo vizuri alama za uchovu. Ninatazama huku na huko kuwatafuta wenye huruma. Lakini wanadamu wote wazima wanainamisha vichwa Chini kama kwamba hawanijui;hata jamaa zangu!

Ninaendelea kuning'inia kama picha iliyotundikwa Katika shamba la mawele, na mwenye shamba Huvuta waya kutoka nyumbani,itingishike kuwatisha ndege.

Machozi yananitoka,kuyapangua siwezi. Ninajitahidi kutoa sauti kwa nguvu;

"Jamani e! Nisaidie! Ng'oeni hivyo vitimbo!" Lakini wanadamu wameinama.Wanaanza sasa kusali.

Kati ya vitimbo, vichwa vinazuka ardhini Ukweli wa maisha unakuwa kama ndoto ya uwongo. Kichwa kimoja kinasema kwa sauti "Mnaliona Hilo!" Halafu vichjwa vyote vyeupe vinacheka.Ninashangaa. Ninashangaa zaidi kusikia sauti ya baba Ikicheka miongoni mwa vichwa hivyo vyeupe. Siyaamini macho,siyaamini masikio, sikiamini kichwa.

#### Maswali:

- 1. Shairi hili ni la "udhanaishi" Fafanua kauli hii. (alama 4)
- 2. onyesha kwa kutoa mifano miwili, jinsi msanii alivyotumia tamathali zifuatazo (alama 6)
  - (a) Jazanda
  - (b) Uhuishi
- 3. Andika ubeti wa saba kwa lugha tutumbi. (alama 4)
- 4. Eleza maana ya mishororo "vichwa vyote hivi vilidondoka kutoka umbali huo, nawe kudondoka utadondoka". (alama 2)
- 5. Eleza umbo la shairi hili. (alama 4)

### **SEHEMU YA D: FASIHI SIMULIZI**

7. (a) Maghani ni nini? (alama 2)

(b) Eleza sifa za maghani. (alama 6)

- (c) Fafanua aina zozote tatu za maghani. (alama 6)
- (d) Eleza matatizo yoyote sita yanayomkumba mtafiti anapotafiti maghani. (alama 6)

# **ALLIANCE HIGH SCHOOL 2024 DETERMINANT**



# Kenya Certificate of Secondary Education

NAME	•••••	ADM
DATE	SIGN	TARGET

121/1 MATHEMATICS PAPER 1 2 ½ HOURS

#### Kenya Certificate of Secondary Education

#### **Instructions to Candidates**

- 1. Write your name, Admission number and class in the spaces provided.
- 2. Sign and write date of the examination in the spaces provided.
- 3. The paper contains TWO sections: Section I and II
- 4. Answer ALL questions in section I and STRICTLY ANY FIVE questions from section II.
- 5. All working and answers must be written on the question paper in the spaces provided below each question.
- 6. Show all the steps in your calculations, giving your answers at each stage in the spaces below each question.
- 7. Marks may be awarded for correct working even if the answer is wrong.
- 8. Non-programmable silent electronic calculators and KNEC Mathematical tables may be used except where stated otherwise.

#### For Examiner's use only

Section I

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

TOTAL	
,   101/1L	
_	

This paper consists of 15 printed pages. Candidates should check to ensure that all pages are printed as indicated and no questions are missing. Section I(50 Marks): Answer ALL questions in the section in the space provided.



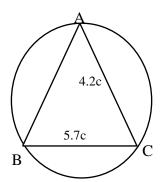
2. Mr. Owino spends  $\frac{1}{4}$  of his salary on school fees. He spends  $\frac{2}{3}$  of the remainder on food and a fifth of what is left on transport. He saves the balance. In certain month he saved Sh. 3400. What was his salary?

(3 marks)

3. Simplify:  $\frac{2y^2-3xy-2x^2}{4y^2-x^2}$ 

4. Find x if  $3^{2x+3} + 1 = 28$  (2 Marks)

5. The circle below whose area is  $18.05 \text{cm}^2$  circumscribes triangle ABC where AB = 6.3cm, BC = 5.7cm and AC = 4.2cm. Find the area of the shaded part. (4 Marks)



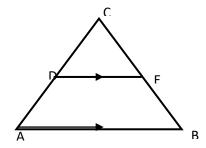
6. A salesman gets a commission of 2.4% on sales up to Sh. 100,000. He gets additional commission of 1.5% on sales above this. Calculate the commission he gets for sales worth Sh. 280,000.(3 Marks)

- 7. A rectangle whose area is 96m² is such that its length is 4metres longer than its width. Find
  - (a) It dimensions (2 Marks)

(b) Its perimeter (1 Mark)

8. Give  $\sin (90 - a) = \frac{1}{2}$  find without using trigonometric tables the value of  $\cos a$ . (2 Marks)

9. In triangle ABC below, AC = BC, AB is parallel to DE, AB = 15cm, DE = 7.5cm and BE = 6cm.



Cal	011	loto
<b>\</b> .a	CH	alc

(a) Length CE (2 Marks)

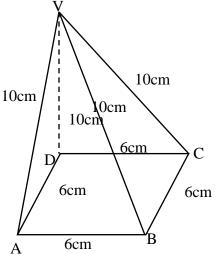
(b) Area of quadrilateral ABED.

(2 Marks)

10. A measuring cylinder of base radius 5cm contains water whose level reads 6cm high. A spherical object is immersed in the water and the new level reads 10cm. Calculate the radius of the spherical object (3 Marks)

11. Using a ruler and pair of compasses only, construct triangle ABC in wangle ABC = 45°. Drop a perpendicular from A to BC to meet line BC	
12. In a book store, books packed in cartons are arranged in rows such that row, 48 cartons in the next row, 46 in the next and so on.	t there are 50 cartons in the first
(a) How many cartons will there be in the 8 <sup>th</sup> row?	(2 Marks)
(b) If there are 20 rows in total, find the total number of cartons in the	book store. (2 Marks)

13. Draw the net of the solid below and calculate the total surface area of its faces. (3 Marks)

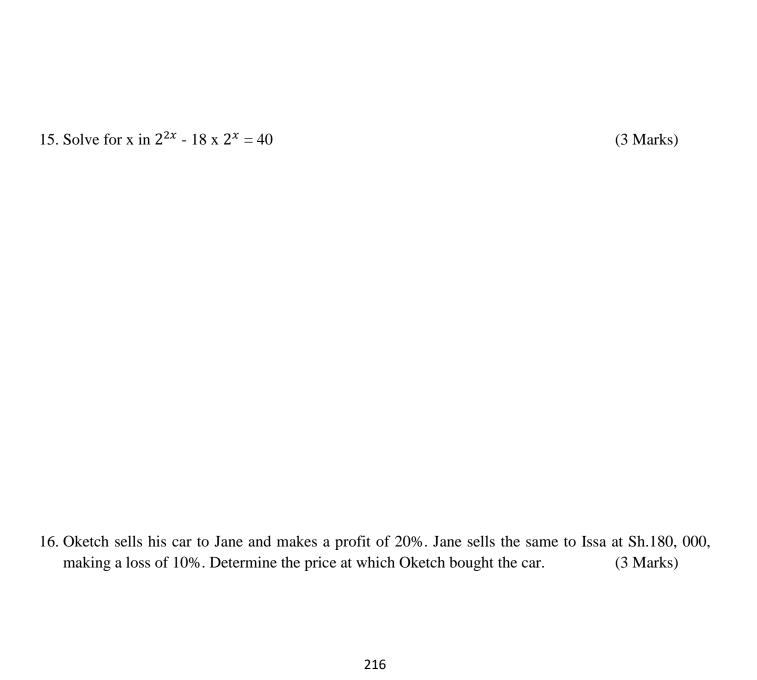


- 14. Town X is 20km in a bearing of  $060^0$  from Y, and Z is 30km in the direction  $150^0$  from Y. Using the scale 1cm represents 5km, find by scale drawing:
  - (a) the bearing of Y from Z.

(2 Marks)

(b) the distance of X from Z.

(2 Marks)



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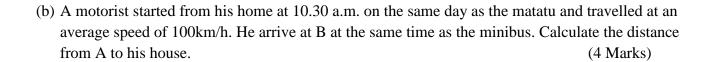
### Section II (50 Marks):

### Answer ANY five questions in this section in the spaces provided.

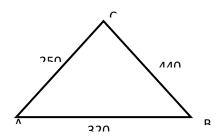
- 17. The distance between towns A and B is 360km. A minibus left town A at 8.15 a.m. and traveled towards town B at an average speed of 90km/hr. A matatu left town B two and a third hours later on the same day and travelled towards A at average speed of 110km/hr.
  - (a) (i) At what time did the two vehicles meet?

(4 Marks)

(ii) How far from A did the two vehicles meet?



18. Karis owns a farm that is triangular in shape as shown below.



(a) Calculate the size of angle BAC (2 Marks)

(b) Find the area of the farm in hectares (3 Marks)

(c) Karis wishes to irrigate his farm using a sprinkler machine situated in the	e farm such that it is
equidistant from points A, B and C.  (i) Calculate the distance of the sprinkler from point C.	(2 Marks)
(i) Calculate the distance of the sprinkler from point C.	(2 Marks)
(ii) The sprinkler rotates in a circular motion so that the maximum point rea the vertices A, B and C. Calculate the area outside his farm that will be in	•
19. A ship leaves port M and sails on a bearing of 050 <sup>0</sup> heading towards island sail from a naval base N to intercept the ship. Destroyer A sails such that it co possible. Destroyer B sails on a bearing of 20 <sup>0</sup> to L. The bearing of N from N NM = 300KM. Using a scale of 1cm to represent 50km, determine:-	vers the shortest distance
THIS QUESTIONS WERE ACQUIRED, COMPILED AND SUPPLIED BY TOPLIGHT PUBLISHERS KENYA	PANEL LIMITED

(i) the positions of M, N and L.	(3 Mark
(ii) the distance travelled by destroyer A	(3 Mark
(iii) the distance travelled by destroyer B.	(2 Mark
(iv) the bearing of N from L.	(2 Mark
220	

FOR MARKING SCHEME CALL SIR ABRAHAM **0729125181** 

20. A number of people agreed to contribute equally to buy books worth KSh. 1200 for a Five people pulled out and so the others agreed to contribute an extra Shs. 10 each. The enabled them to buy books worth Shs. 200 more than they originally expected.	
(a) If the original numbers of people was x, write an expression of how much each w contribute.	vas originally to (1 Mark)
(b) Write down two expressions of how much each contributed after the five people p (2 Marks)	oulled out.
(c) Calculate the number of people who made the contribution.	(5 Marks)
221	

	/ 1\	<b>a</b> 1 1 .				. ••	
(	(d)	Calculate	how	much	each	contributed	a.

(2 Marks)

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

(1 Mark)

(ii) Find the area of the parallelogram.

(2 Marks)

22. The following measurements were recorded in a field book of a farm in metres (xy = 400m)

Y	
400	
340	
300	120D
240	100E
220	160F
140	
80	
x	
	400 340 300 240 220 140 80

(a) Using a scale of 1cm representing 4000cm, draw an accurate map of the farm. (3 Mag	(a)	Using a scale of 1	cm representing 4	4000cm, draw an	accurate map of	of the farm. (	3 Marks
--	-----	--------------------	-------------------	-----------------	-----------------	----------------	---------

(b) If the farm is on sale at Kshs. 80,000.00 per hectare, find how much it costs. (7 Marks)

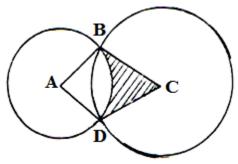
23. The table shows marks obtained by 100 candidates at Goseta Secondary School in Biology examination.

Marks	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85-94
Frequency	6	14	24	14	X	10	6	4

(a) Determine the value of x

(b) State the modal class	(1 Mark)
(c) Calculate the median mark	(2 Marks)
(d) Calculate the mean mark	(5 Marks)

24. In the diagram below, two circles, centres A and C and radii 7cm and 24cm respectively intersect at B and D. AC = 25cm.



(a) Show that angle  $ABC = 90^{\circ}$ .

(3 Marks)

- (b) Calculate
  - (i) the size of obtuse angle BAD

(3 Marks)

(ii) the area of the shaded part

(4 Marks)

# **ALLIANCE HIGH SCHOOL 2024 DETERMINANT**



### Kenya Certificate of Secondary Education

NAME	•••••	ADM		
DATE	SIGN	TARGET	••••	

121/1 MATHEMATICS PAPER 2 2 ½ HOURS

#### Kenya Certificate of Secondary Education

#### **Instructions to Candidates**

- 1. Write your name, Admission number and class in the spaces provided.
- 2. Sign and write date of the examination in the spaces provided.
- 3. The paper contains TWO sections: Section I and II
- 4. Answer ALL questions in section I and STRICTLY ANY FIVE questions from section II.
- 5. All working and answers must be written on the question paper in the spaces provided below each question.
- 6. Show all the steps in your calculations, giving your answers at each stage in the spaces below each question.
- 7. Marks may be awarded for correct working even if the answer is wrong.
- 8. Non-programmable silent electronic calculators and KNEC Mathematical tables may be used except where stated otherwise.

#### For Examiner's use only

### Section I

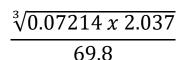
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	TOTAL

Se	ection	<u>II</u>									(	CDAND TOTA	_
1	.7	18	19	20	21	22	23	24	25	TOTAL			

This paper consists of 16 printed pages. Candidates should check to ensure that all pages are printed as indicated and no questions are missing. Section I(50 Marks): Answer ALL questions in the section in the space provided.

### **SECTION I**

1. Use logarithm tables correct to 4 significant figures to evaluate.



(3 Marks)

2. Find the equation of the perpendicular bisector of line PQ where the co-ordinates of P and Q are P (-2, 8) and Q (4, 7). (3 Marks)

3. The surface areas of two spheres are 36cm<sup>2</sup> and 49cm<sup>2</sup>. If the volume of the smaller sphere is 20.2cm<sup>3</sup>, calculate the volume of the larger one. (2 Marks)

4. The marked price of a shirt is Sh. 800. A customer buys the shirt after being given a discount of 13%. The seller then realizes that he made a profit of 20% on this sale. Find how much the seller had bought the shirt.

(2 Marks)

5.	In the grid provided	below, show the	e region R tha	at is satisfied by the three	inequalities given be	elow.
----	----------------------	-----------------	----------------	------------------------------	-----------------------	-------

$$Y\delta 6-x$$

$$y < x + 4$$

(4 Marks)

6.	The radius of a cone increases in the ratio 4:3 while it's height decreases in the ratio 3:4. Determine
	the percentage change in the volume of the cone. (3 Marks)
	231
T	COLLECTIONS WERE ACCUURED COMBILED AND SURBLIED BY TORUGUE BURLICUEDS VENIVA DANIEL LIAMTED
IHI	S QUESTIONS WERE ACQUIRED,COMPILED AND SUPPLIED BY TOPLIGHT PUBLISHERS KENYA PANEL LIMITED

7. Solve for x in the equation

(3 Marks)

Log (5x + 75) - 2 Log 3 = Log (2x - 9)

8. Given that a = 3i - 2j + 3k and b = 2i - 4j - 3k where i, j and k are unit vectors, find |2a + 3b| (3 Marks)

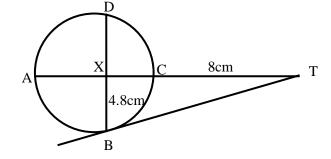
9. Make x the subject of the formula in

$$a = \left(\frac{bx}{b+x}\right)^{\frac{1}{3}}$$

Hence find the value of x when a = 2 and b = 6.

(4 Marks)

10. In the figure below, BT is a tangent to the circle at B. AXCT and BXD are straight lines. AX = 6cm, CT = 8cm, BX = 4.8cm and XD = 5cm. (Figure not drawn to scale)



Find the length of

(a) XC (2 Marks)

(b) BT (2 Marks)

11. Simplify  $\frac{3}{\sqrt{5}-2} + \frac{1}{\sqrt{5}}$  leaving your answer in the form  $a + b\sqrt{c}$ , where a, b and c are rational numbers. (3 Marks)

- 12. A quantity y varies partly as another quantity x and partly as the square of x. When x = 20, y = 45 and when x = 24, y = 60.
  - (a) Express y in terms of x

(3 Marks)

(b) Find x when y = 75

- (1 Mark)
- 13. Expand  $(a x)^6$  upto the term in $(x)^3$ . Use your expansion to estimate the value of  $(2.99)^6$ to 3 decimal places. (4 Marks)

14. A pipe 3.0m long was cut into three pieces. The first piece and the second one were measured as 1.3m and 0.94m respectively. Find the limits within which the length of the third piece lies(3 Marks)
15. A coffee blender has two brands of coffee, Tamu and Chungu. A kilogram of Tamu costs Sh. 70 while a kilogram of Chungu costs Shs. 64. In what ratio should he mix the two brands to make a blend which costs Shs. 68 per kilogram? (2 Marks)
16. Find the centre and radius of a circle whose equation is $x^2 + y^2 + 8x + y^2 - 2y - 1 = 0$ (3 Marks)
SECTION II (50 Marks): Answer ANY FIVE questions in this section in the spaces provided.  235  THIS QUESTIONS WERE ACQUIRED, COMPILED AND SUPPLIED BY TOPLIGHT PUBLISHERS KENYA PANEL LIMITED

17. In a Science class $\frac{2}{3}$ of the class are boys and the rest are girls. 80% of the boys and	90% of the girls are				
right handed. The probability that the right handed student will break a test tube in any session					
that for the left handed student is $\frac{3}{10}$ , regardless of whether boy or girl.	10				
(a) Draw a tree diagram to represent this information.	(2 Marks)				
(b) Using the tree diagram drawn, find the probability that:					
(i) A student chosen at random from the class is left handed	(2 Marks)				
	(O.M)				
(ii) A test tube is broken by a left handed student.	(2 Marks)				
(iii) A test tube is bushen by a wight handed student	(2 Maulta)				
(iii) A test tube is broken by a right handed student.	(2 Marks)				
236					

(iv) A test tube is not broken in any session	(3 Marks)
18. Matrix P is given by (4 7 5 8)	
(a) Find P <sup>-1</sup>	(2 Marks)
(b) Two institutions, Katulani High School and Nthia High School purchased bean	s at Sh. b per bag
and maize at Sh. m per bag. Katulani purchased 8 bags of beans and 14 bags of	
47,600. Nthia purchased 10 bags of beans and 16 bags of maize for KSh. 57,400	
(i) Form a matrix equation to represent the information above.	(2 Marks)
(ii) Use matrix P-1 to find the prices of one bag of each item.	(3 Marks)

	went up by 5% and that of maize rem	
	ut spent the same total of money as be	
ratio of beans to maize.		(3 Marks)
. James' earning are as follow	VS:-	
	238	

Basic salary Sh. 38,000 p.m

House allowance Sh. 14,000 p.m

Travelling allowance Sh. 8,500 p.m

Medical allowance Sh. 3,300

The table for the taxable income is as shown below.

Income tax in K£ p.a	Tax in Sh. per pound
1 600	2
6001 ———————————————————————————————————	3
12001 — 18000	4
1001 — 24000	5
24001 30000	6
3000136000	7
36001	8
42001 48000	9
Over 48000	10

(a) Calculate James' taxable income in K£ p.a.

(b) Calculate James's P.A.YE if he is entitled to a tax relief of Sh. 18000 p.a. (4 Magnetic Action 18000 p.a.)
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(c) James is also deducted the following per month:-

NHIF Sh. 320

Pension scheme Sh. 1000

Co-operative shares Sh. 2000

Loan repayment Sh. 5000

Interest on loan Sh. 500

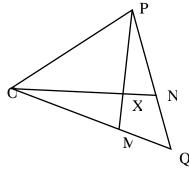
(i) Calculate James' total deduction per month in KSh.

(ii) Calculate his net salary per month	(2 Marks)
20. Three consecutive terms of a geometric progression are $3^{2x+1}$ , $9^x$	and 81 respectively.
(a) Calculate the value of x	(3 Marks)
(b) Find the common ratio of the series.	(1 Mark)
(c) Calculate the sum of the first 4 terms of this series.	(3 Marks)
241	

(d) Given that the fifth and the seventh terms of the G.P form the first two conse	cutive terms of an
arithmetic sequence, calculate the sum of the first 20 terms of the sequence.	(3 Marks)
242	

21.	. A tank has two inlet taps P and Q and an outlet tap R. When empty, the tank car	be filled by tap I
	alone in $4\frac{1}{2}$ hour or by tap Q alone in 3 hours. When full, the tap can be emptied in	2 hours by tap R.
	(a) The tank is initially empty. Find how long it would take to fill up the tank	
	(i) If tap R is closed and taps P and Q are opened at the same time.	(2 Marks)
	(ii) If all the three taps are opened at the same time.	(2 Marks)
	<ul> <li>(b) The tank is initially empty and the three taps are opened as follows:- <ul> <li>P at 8.00 a.m.</li> <li>Q at 8.45 a.m</li> <li>R at 9.00 a.m</li> </ul> </li> <li>(i) Find the fraction of the tank that would be filled by 9.00 a.m</li> </ul>	(3 Marks)
	(ii) Find the time the tank would be fully filled up	(3 Marks)
	243	

22. In the figure below M and N are points on OQ and QP such that OM:MQ = 2:3 and QN:NP = 2:1. ON and PM intersect at X.



(a) Given that OP = p and OQ = q. Express in terms of p and q

(i) ON (2 Marks)

(ii) PM (2 Marks)

(b) Given that OX = hON and PX = kPM where h and k are scalars,

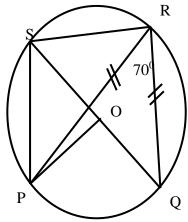
(i) Determine the values of h and k.

(5 Marks)

(ii) Determine ratio in which X divides PM.

(1 Mark)

23. The figure below shows a circle centre O, PQRS is a cyclic quadrilateral and QOS is a straight line.



Giving reasons for your answers, find the size of

(a) Angle PRS

(b)	Angle	PO	$\mathbf{O}$
(0)	IMELO	$\mathbf{I} \cup$	v

(2 Marks)

(3 Marks)

(d) Reflex angle POS

(3 Marks)

24. (a) Complete the table below for 
$$y = x^3 + 4x^2 - 5x - 5$$

(2 Marks)

Х	-5	-4	-3	-2	-1	0	1	2
$y = x^3 + 4x^2 - 5x - 5$			19			-5		

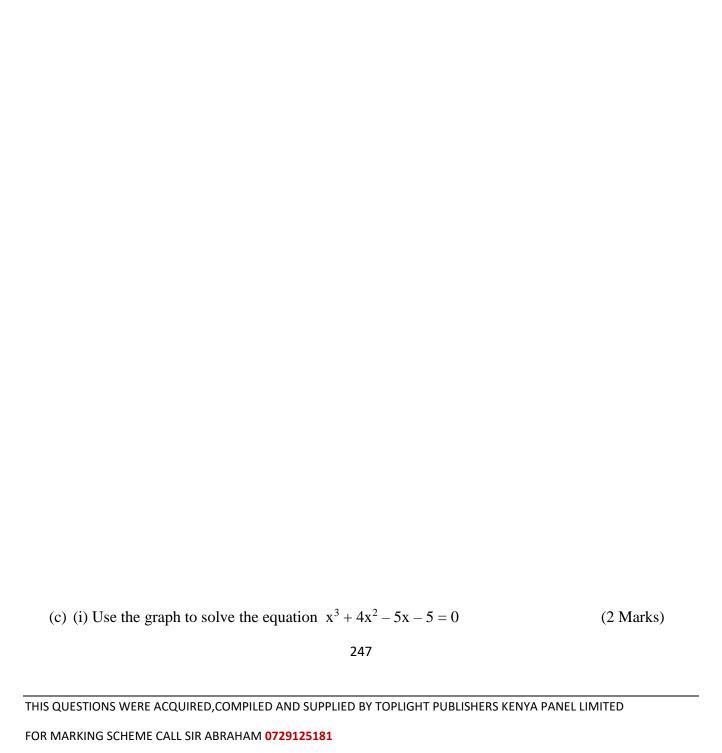
(b) On the grid provided, draw the graph of 
$$y = x^3 + 4x^2 - 5x - 5$$
 for -5  $\delta$  x  $\delta$  2

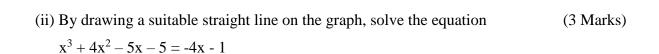
(3 Marks)

<del>246</del>

THIS QUESTIONS:WEREIAGQWIREID, COMPILED AND SUPPLIED BY TOPLIGHT PUBLISHERS KENYA PANEL LIMITED

EOR MARKING SCHENIE CAIL SIR ARRAHAN/ M7791715181





# **ALLIANCE HIGH SCHOOL 2024 DETERMINANT**



## Kenya Certificate of Secondary Education

NAME	•••••	ADM		
DATE	SIGN	TARGET		

# PHYSICS PRACTICAL confidential

232/3

### **Question 1**

### Each candidate should have the following.

- Two dry cells (1.5v) D size
- Cell holder(s) to enable parallel connection
- A bulb (1.5v)
- A voltameter
- An ammeter
- A switch
- Mounted resistance wire labelled AB

(The wire is SWG 32 mounted on a metre rule on a mm sale.)

### **Question 2**

- Complete stand

- Copper	wire (	(length	of abou	ut 30cm)
COPPCI	** 11 C	(ICII Z LII	or about	ut Sociii,

- A stop watch
- A protractor
- A meter rule
- Corked optical pin

# **ALLIANCE HIGH SCHOOL 2024 DETERMINANT**



## Kenya Certificate of Secondary Education

NAME	ADM		
DATE	SIGN	TARGET	
232/1			
PHYSICS			
THEORY			
PAPER 1			
2 HOURS			

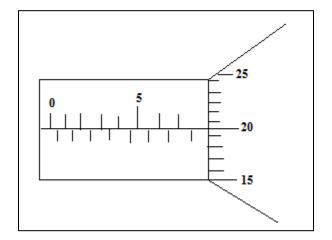
Kenya Certificate of Secondary Education

**INSTRUCTIONS** 

Write your name and admission number in the space provided							
Sign and write the date of the examination in the space provided above							
This paper consists of two sections A and B.							
Answer all the	questions in the	spaces provided					
All workings must be clearly shown.							
Mathematical t	tables and silent	electronic calcul	ators may be used.				
	For exa	miner's use only	,				
	SECTION	QUESTION	TOTAL MARKS	CANDIDATE'S SCORE			
	Α	1-13	25				
	В	14	14				
		15	10				
		16	11				
		17	10				
		18	10				
			GRAND TOTAL	80 MARKS			
TOTAL CANDIDATE'S SCORE							
Section A + section B =							
This paper consists of 10printed pages							
252							

## SECTION A (25 MARKS)

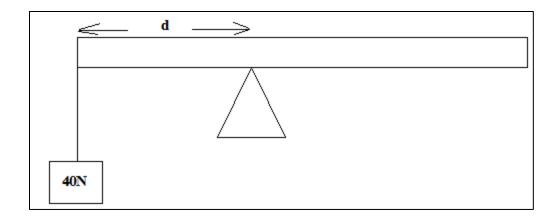
1. The figure below shows a micrometer screw gauge. What is the reading shown on the figure. (2 marks)



••••		
	State pressure law.	(1 mark)
3.	State two factors that affect stability of a body.	(2 marks)
	i)	
	ii)	

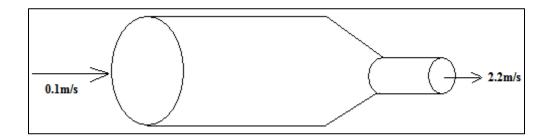
 	 	••••••

4. The diagram below shows a uniform wooden plank of length 4m and weight 10N. The plank is held at equilibrium by a weight of 40N placed at one end as shown below.



Determine the distance d.	(3 marks)

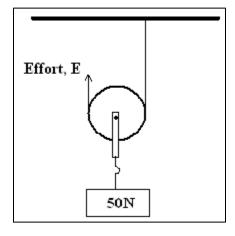
5. Figure below shows a non-viscous fluid that is not compressible moving through a pipe of varied cross-sectional area.



	If the area of the narrow region is 0.05m <sup>2</sup> , calculate diameter of the wider region.	(3 marks)
6.	State one use of thermal expansion.	(1 mark)
7.	State two factors that affect melting point of a substance.	(2 marks)
	i)	
••••		
	ii)	
••••	255	

•••		
	A body is projected vertically upwards from the top of a building. If it lands on the base of the Sketch the velocity-time graph for motion.	the building. (2 marks)
	State a reason why transfer by radiation is faster than by conduction.	(1 mark)
	256	

10. The pulley system in the figure below supports a load of 50N.



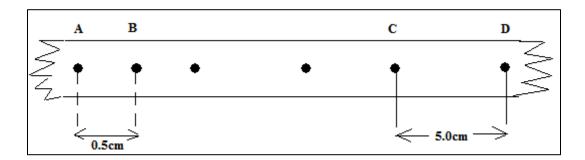
Given that the efficiency of the system is 80% calculate the effort, E. (3 marks)

11. The figure below shows a glass container with cross-section area of 50cm <sup>2</sup> .	
When a wooden block of mass 120g is immersed into the water it floats while fully submerged a level rises by 4cm, determine the density of the water.	and the water (3 marks)
12. Define the term momentum.	(1 mark)
13. What is a pitch of a screw.	(1 mark)
258	

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#### **SECTION B**

14. The figure below shows the motion of a trolley on ticker timer. The ticker has a frequency of 100Hz.

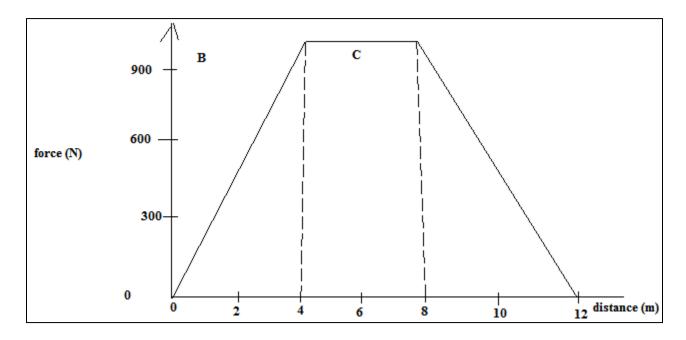


a) i) Calculate the initial velocity between A and B. (3 marks)

ii) Calculate the final velocity between C and D. (3 marks)

iii) Calculate the acceleration of the trolley during the motion. (3 marks)

b) Figure below shows a force-distance graph for a car being towed on a level ground.

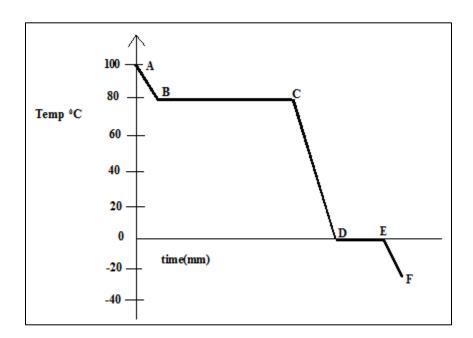


i) Calculate the total work done. (3 marks)

ii) If the velocity just before reaching point C is 0.6m/s. Calculate the power developed by the engine at this point.(2 marks)

15.	a) A metal ball of mass $100g$ is dipped into boiling water at $100^{0}$ C and containing $80g$ of water at $20^{0}$ C. After stirring, the temperature of the m the heat gained by the calorimeter, determine the specific heat capacity capacity of water = $4200j$ /Kg K).	then placed in a calorimeter ixture stabilizes at 23.4°C. Ignoring

b) The cooling curve below is for a pure substance.



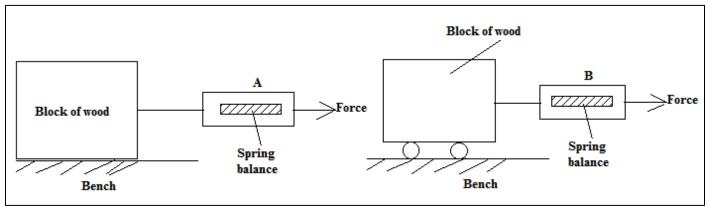
i) What is the melting point of the substance.

(1 mark)

	Solid and Liquid?	(3 marks)
	Liquid only?	
iii)	At what part of the curve is the substance. Solid only?	
ii)		
ii) i)	State two factors that affect boiling point of a substance.	

b)	The legal speed limit on motorways is approximately 30m/s. In an incident on a motorway, a car of mass 900kg leaves a skid mark 75m long when stopping. The maximum deceleration of the car when skidding is approximately 10m/s <sup>2</sup> .
i)	Show that before the incidence, the car must have been travelling above the legal speed limit.
	(3 marks)
ii)	Calculate for this skid, the maximum average braking force between each of the four tyres and the road.  (3 marks)
<b>iii</b> )	When the motorway is wet, the braking force provided by each wheel is reduced to 50% of the calculated in (ii) above. What is the effect of this reduced breaking force on stopping distance, explain your answer. Assume that the speed of the car before breaking is the same in both cases. (2 marks)
	263

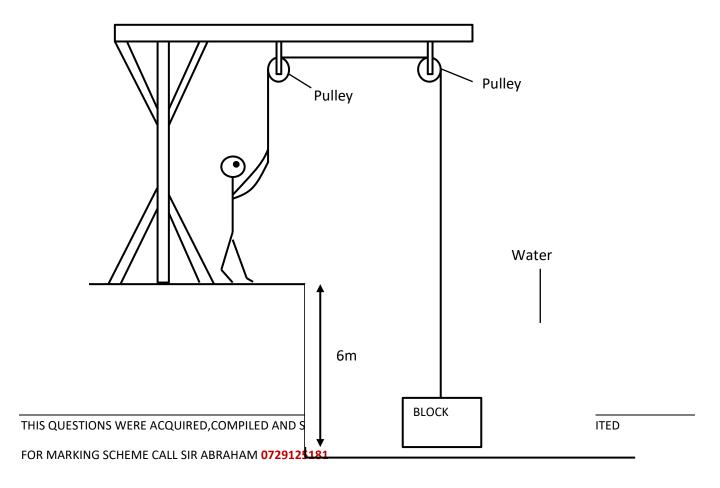
c) A student carried out an experiment to measure static friction using identical wooden blocks arranged



as shown in the figure.

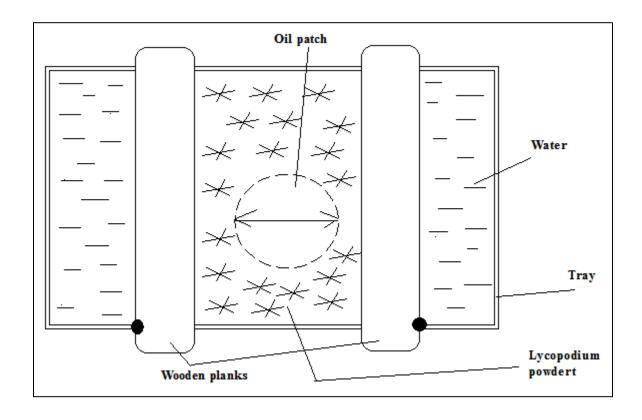
	State and explain which spring balance will indicate a smaller reading when the block just starts to move
	(2 marks)
17	a) Give a reason why people experience nose bleeding when they climb tall mountains. (1 mark)

b) The diagram shows a person raising a concrete block from a river bed by using two pulleys.



As :			e block is 6.0m below f free fall is 10m/s². Ca		
	the broom	(o mana)			
c)			At one part, the wate block is $0.015$ m $^2$ . Calc		
	on top of the		510CK 13 0.015111 . Calc	(3 marks)	ine wate
			266		

d) When the block is clear of the water, it is raised a further 4.0m. The weight of the block is 550N Calculate the work on the block as it is raised the 4.0m through air.	I. (3 marks)
18. The figure below shows part of an experiment set up to estimate the diameter of an oil molecule.	
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i)	Des	scribe how the oil patch is formed.	(2 marks)
	ii)	What is the role of the Lycopodiumpowder.	(1 mark)
	b)	An oil drop of average diameter 0.7mm spreads out into a roughly circular patch of dia	meter 73.5cm
		on the surface of water in a trough.	
	i)	Calculate volume of the drop in mm <sup>3</sup> . Take ( $\pi = {}^{22}/_7$ )	(3 marks)

ii)	Calculate the area of the patch in mm <sup>3</sup> .	(2 marks)
iii)	Calculate the thickness of the oil molecule and express your answer in standard form.	(2 marks)
,	calculate the thickness of the on molecule and express your answer in standard form.	(2 marks)

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# **ALLIANCE HIGH SCHOOL 2024 DETERMINANT**



# Kenya Certificate of Secondary Education

NAME	•••••	ADM	••
DATE	SIGN	TARGET	••
232/2			
PHYSICS			

2HOURS			
PAPER 2			
THEORY			

## Kenya Certificate of Secondary Education

#### **INSTRUCTIONS**

Write your name and admission number in the space provided

Sign and write the date of the examination in the space provided above

This paper consists of two sections A and B.

Answer all the questions in the spaces provided.

All working must be clearly shown.

Mathematical tables and electronic calculators may be used.

### For examiner's use only

SECTION	QUESTION	TOTAL MARKS	CANDIDATE'S SCORE
Α	1-13	25	
В	14	11	
	15	13	
	16	11	

17	10	
18	10	
	GRAND TOTAL	80 MARKS

#### TOTAL CANDIDATE'S SCORE

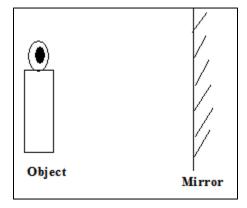


### This paper consists of 9 printed pages

### **SECTION A (25 Marks)**

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

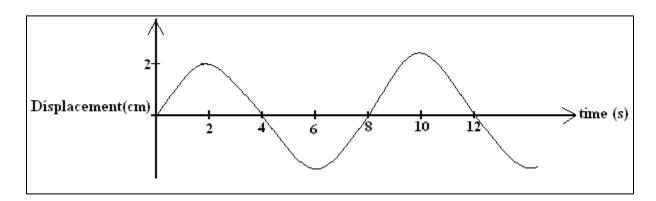
1. Locate the position of the image of the object placed in front of a plane mirror shown below. (2 mks)



	274	
5.	State two factors that affects the resistivity of an electrical conductor.	(2 mks)
4.	State two advantages of using a convex mirror as a driving mirror.	(2 mks)
3.	State two factors that determine the strength of an electromagnet.	(2 mks)
	$\times$	
2.	Show the magnetic field pattern of the current carrying conductors shown below.	(2 mks)
•	Chay the magnetic field nottern of the current corning conductors chays below	(2 mks)

FOR MARKING SCHEME CALL SIR ABRAHAM **0729125181** 

6. The figure below shows a wave in progress.



Determine the

a) Amplitude	(1 mark)
b) Frequency	(2 marks)
***************************************	

7. The figure below shows light travelling from less dense to more dense medium.

21	Normal
600	Less dense
	More dense

a)	Show the	direction	of the	refracted	ray.
----	----------	-----------	--------	-----------	------

(1 mark)

•	If the refractive index of the more dense medium is 1.4, calculate the angle of refraction.(3 marks)

8. A current ,I, flowing through a wire of resistance ,R, is increased by seven times. Determine the factor by which the rate of heat production was increased. (3 marks)

9. The wavelength of a radio wave is 1km. Determine its frequency if the speed in  $3 \times 10^8 \text{ms}^{-1}$  (2 marks)

10.	State two uses of gold leaf electroscope.	(2 marks)
11.	Give a reason why soft iron is used as a core of the coil of an electric bell.	(1 mark)
12.	State two differences between pinhole camera and the human eye.	(2 marks)
13.	State two types of waves.	(2 marks)
	277	

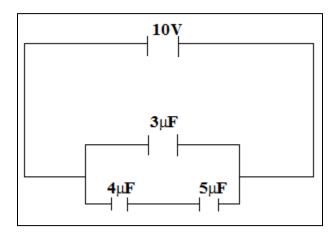
### **SECTION B (55 MARKS)**

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

14. a) Define the following terms.

i)	Capacitor	(1 mark)
ii)	Capacitance	(1 mark)

b) Three capacitors are connected to a 10v battery.

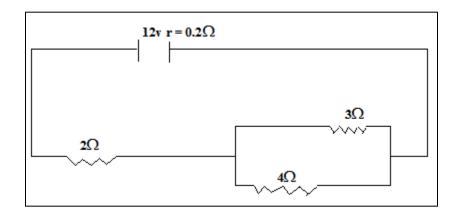


## Calculate

i)	the effective capacitance	(3 marks)
ii)	the total charge	(3 marks)
c)	State three factors that determine the capacitance of a capacitor.	(3 marks)
i)		
ii)		
iii)		
••••		
••••	279	•••••

15. a)	Define a resistor.	(1 mark)

b) The figure below shows three resistors connected to 12v supply of internal resistance of  $0.2\Omega$ .



Calculate

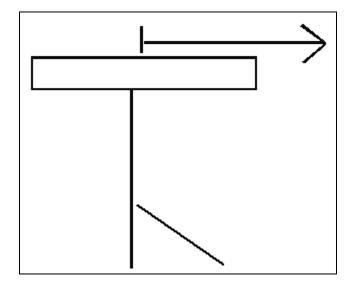
i) the effective resistance.

(3 marks)

ii) the total current in the circuit.	(2 marks)
iii) the current through the $4\Omega$ resistance.	(3 marks)
c) If the current flows for 2 minutes calculate the total energy dissiparted.	(2 marks)

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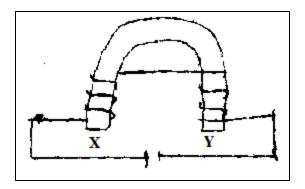
	d)	State two applications of resistors in real life situation.	(2 marks)
	(i)		
	(ii).		
16.	a)	Explain briefly how a material acquires a positive charge.	(3 marks)
	b)	A steel pin is placed on the cap of a highly charge electroscope.	
		282	



	State and explain the observation that will be made on the gold leaf.	(2 marks)
c)	State a reason why a candle flame is blown away when a highly charged metal is brough	nt close to it.
		(2 marks)
d)		(2 marks)

	e)	State two dangers of electrostatic charges.	(2 marks)
17.	a)	State two methods of magnetisation.	(2 marks)
	b)	Why is repulsion the surest way of identifying a magnet.	(2 marks)
•••••	••••		
	c)	Complete the diagram below to show the magnetic field patterns.	(2 marks)
		$\begin{bmatrix} \mathbf{s} & \mathbf{n} \end{bmatrix}$	
		Iron ring	
	d) i	) The figure below in a U-shaped iron core. Indicate the polarity at X and Y.	(2 marks)

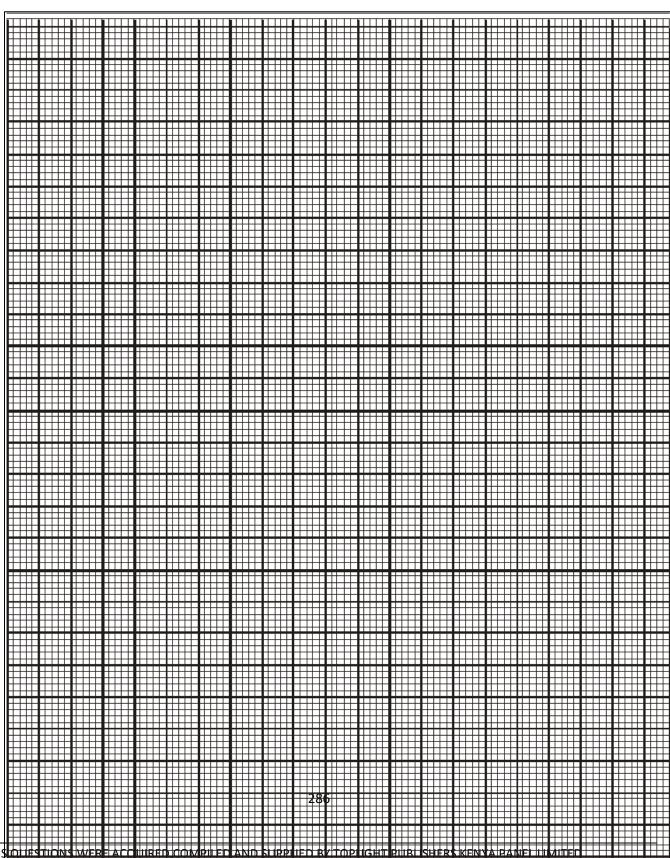
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	ii)	State two applications of such an ele	ctromagnet.			(2 marks)	
18.	a)	A pin is placed at the bottom of a be	aker containing a ti	ransparent liquid.	When viewed f	from the top	
		the pin appears nearer the surface the	nan it actually is. E	xplain the observ	ation.	(2 marks	
	•••••				•••••	••••••	••••
	•••••				•••••	••••••	••••
							••••
b)	The	table below shows the results obtain	ned from such an ex	kperiment.			
				T a sa			
		Apparent depth (cm)	2.21	3.68	5.15	6.62	8.09
		Real depth cm	3.0	5.0	7.0	9.0	11.0

(5 marks)

Plot a graph of real depth against apparent depth.



# **ALLIANCE HIGH SCHOOL 2024 DETERMINANT**



## Kenya Certificate of Secondary Education

NAME	•••••	ADM		
DATE	SIGN	TARGET	•••••	
232/3				
PHYSICS				
PRACTICAL				
PAPER 3				
2 ¹/₄HOURS				

Kenya Certificate of Secondary Education

#### **INSTRUCTIONS**

Answer all the questions in this paper

You are supposed to spend the first 15 minutes of the 2 <sup>1</sup>/<sub>4</sub>hours allowed for this paper reading the whole paper carefully before starting your work.

Marks are given for clear record of the observations made, their suitability and accuracy and the use made of them.

Candidates are advised to record observations as soon as they are made

Mathematical table and electronic calculators may be used.

#### For Examiner's use only

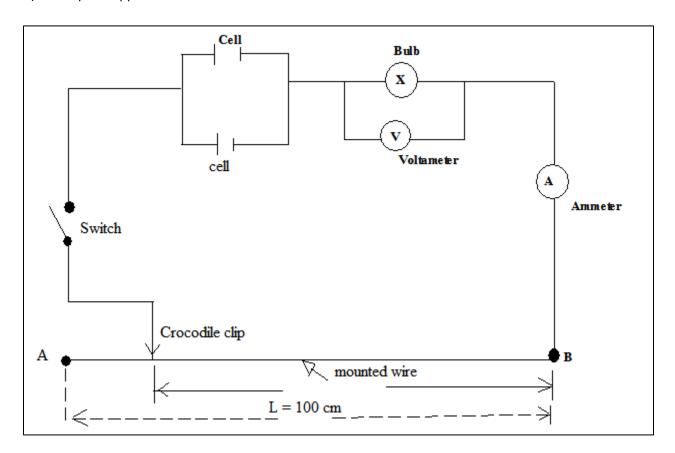
QUESTION	TOTAL MARKS	CANDIDATE'S SCORE
1	20	
2	20	
	GRAND TOTAL	80 MARKS

#### This paper consists of 7 printed pages

#### **Question 1**

## You are provided with the following apparatus

- Two dry cells
- A cell holder
- A bulb
- A voltameter
- An ammeter
- A switch
- Amounted resistance wire labelled AB
- a) Set up the apparatus as shown in the circuit below.



b)	With the crocodile clip at A (ie L = 100cm) take the voltameter reading (V) and the ammeter reading (I).
	Record V and I in the table below.

Length I(cm)	100	80	60	40	20	0
Voltage (V)						
Current I (A)						

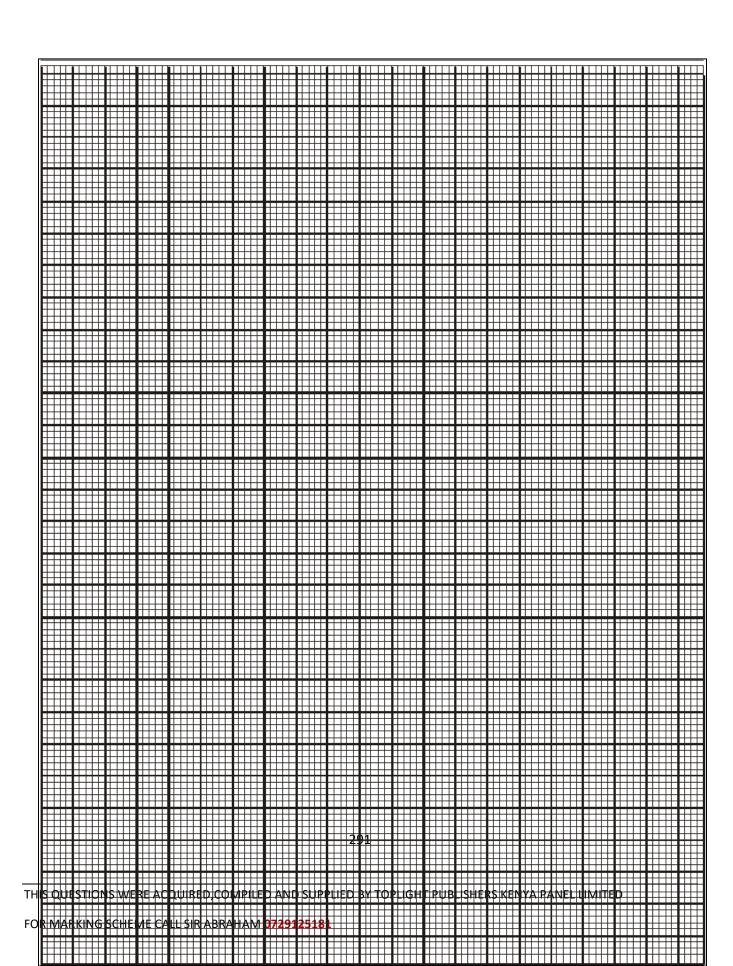
(7

marks)

c)	Repeat the procedure in (b) above for the lengths shown and complete the table above.	
d)	State the changes you observe on the bulb as L decrease from A.	(2 marks)

e)	Plot a graph of voltage against length (cm)	

(5 marks)



f)	What physical quantity does the slope of the graph represent at any given point.	(2 marks)
g)	From your graph determine the value of voltage at length L = 70cm.	(2 marks)
h)	Use your graph to describe how the physical quantity in (e) above is affected as the current Explain why. (2 marks)	increases.
	Question 2	
	You are provided with the following apparatus  A complete stand	
•	Copper wire (wire length about 30cm)	
•	A stop watch	
	292	

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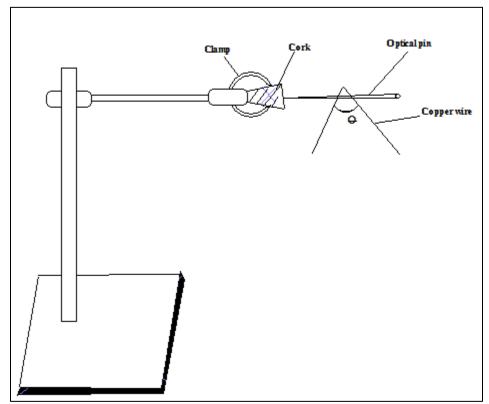
- A protractor
- A meter rule
- Corked optical pin

#### **Procedure**

a) Measure the length L of the copper wire.

L = ...... m (1 mark)

b) Bend the wire to form an angle  $\Theta$  of  $60^{\circ}$ , suspend it from the corked optical pin as shown in the diagram below.



c)	Give it a small displacement so that it oscillates about a point on the pin. Measure the time, t(s) for	10
	oscillations of the wire.	
	t =(s)	(1
	mark)	

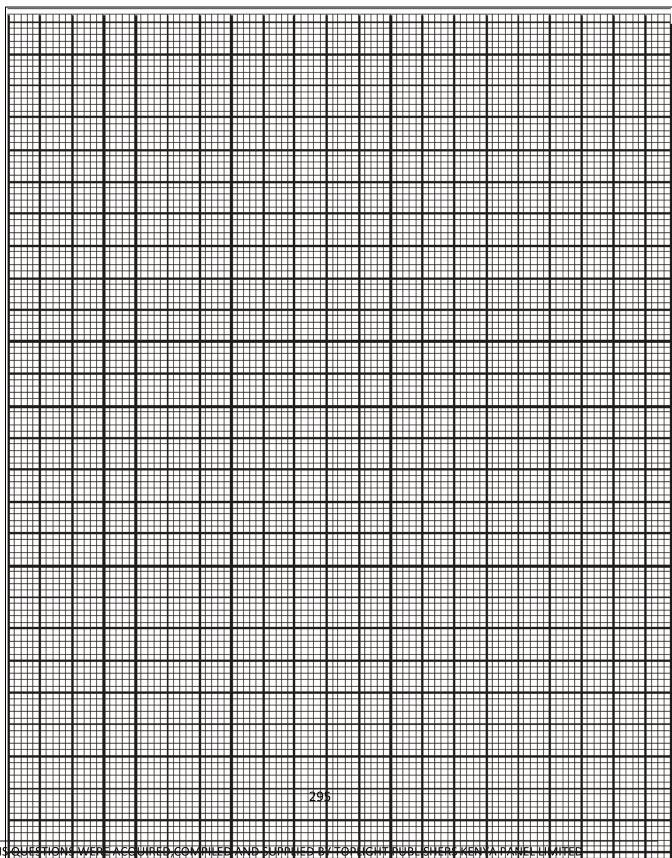
- d) Repeat the procedure (b) above for the values of  $\Theta$  = 70°, 80°, 90°, 100°, 110°.
- e) Record and complete the results in the table below.

O (°)	60	70	80	90	100	110
Cos <sup>1</sup> / <sub>2</sub> O						
Time for 10 oscillations, t (s)						
Periodic time T (s)						
T <sup>2</sup> (s <sup>2</sup> )						
$^{1}/_{T}^{2}$ (s <sup>-2</sup> )						

(7 marks)

f) On the grid provided, plot a graph of  $^{1}/_{T^{2}}$  (s<sup>2</sup>) against Cos<sup>1</sup>/<sub>2</sub> $\Theta$ .

(5 marks)



THI\$

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g) Determine the slope.

(3 marks)

h) Given that the graph is related by the equation  $^1/_T^2 = \frac{8\pi 2_L}{g} \cos ^1/_2 \Theta$ , determine the value of constant g.

(3 marks)