FORM 3 TERM 2 OPENER EXAMS

ALL SUBJECTS

Compilation of Standard set of Term 2 Opener Questions for the Current Class.

(COMPREHENSIVE PAPERS ONLY)

SUBJECTS TESTED;

Mathematics, English, Kiswahili, Biology, Chemistry, Physics, CRE, Geography, History, Business Studies, Agriculture, Home Science, Computer Studies, Art and Design, Drawing and Design, IRE & French.

SERIES 2

For Marking Schemes

Mr Isaboke 0746 222 000 / 0742 999 000

MWALIMU CONSULTANCY

FORM 3 TERM 2 OPENER EXAMS

SERIES 2

BIOLOGY

TIME: 2 HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGNATURE……

(THEORY)

INSTRUCTIONS TO CANDIDATES

(a) *Write your name, admission number and school in the spaces provided above*

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

(c) *Answer ALL the questions in the spaces provided on the question paper*

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

(e) *Candidates should answer the questions in English*

FOR EXAMINER'S USE ONLY

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

17	18	19	20	21	22	23	GRAND TOTAL

Answer all the questions in the spaces provided.

1. Explain the following in a predator- prey relationship in a natural habitat. **(2 marks)**

a) Predators have frontal eyes.

……

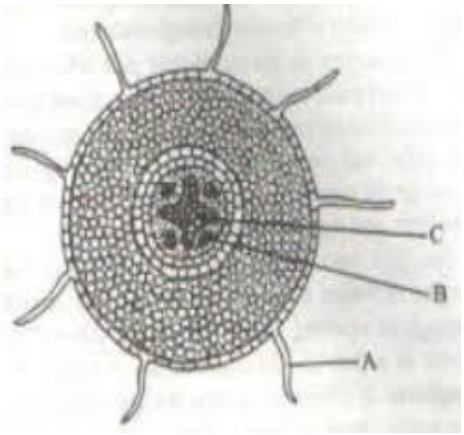
……

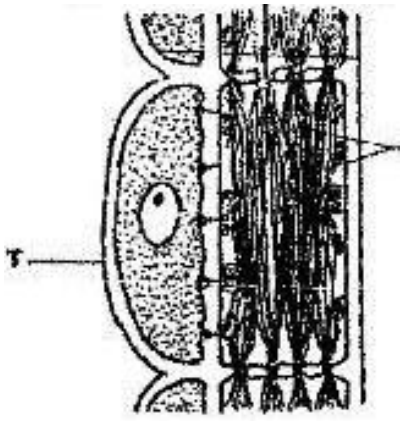
b) Some predators stalk, approach and attack the prey against the direction of wind flow.

……

……

2. The diagram below represents the transverse section through a part of a plant and a structure, K, obtained from the same section.





K

a) i) Identify the part labelled **A.** **(1 mark)**

……

ii) State the function of the part labelled **A**. **(1 mark)**

……

……

b) Identify the class of the plant from which the section was obtained. **(1 mark)**

……

Reason. **(1 mark)**

……

……

c) Identify the organ of the plant from which the section was obtained. **(1mark)**

……

Reasons. **(2 marks)**

……

……

……

d) Which label on the section correctly represents the part from which structure K was obtained. **(1mark)**

……

e) State one way in which part labelled T in structure K is structurally adapted to support the function of K. **(1 Mark)**

……

……

3. The diagram below represents the cross section of a normal artery and the changes on its size, A and B under different environmental conditions.



A B.

a) i) State the environmental condition under which the change represented by A is expected. **(1 mark)**

……

ii) Suggest the internal body temperature of the person whose artery is represented by A. **(1 mark)**

……

……

iii) State one physical activity that may trigger the artery size to change as represented in A**.(1 mark)**

……

b) What name is given to the phenomena represented by B. **(1 mark)**

……

c) i) Suggest the volume of urine produced by a person during the condition where the artery changes to size B. **(1 mark)**

……

ii) Explain your answer in 3. c) i) above. **(2 marks)**

……

……

……

4. Name the most appropriate method that could be used to estimate the population size of the following organisms. **(2 marks)**

i) Grasshoppers in the school field.

……

ii) Different plant species along the slope of a hill.

……

5. Explain the reason for the following during preparations of fresh microscope slide in a light microscope.

i) Thin sectioning. **(2 marks)**

……

……

……

ii) Staining. **(1 mark)**

……

……

6. Give two reasons why the light stage of photosynthesis is useful for the dark stage. **(2 marks)**

……

……

……

……

7. State two observable features of a male cone that would make it easy for a student to identify it positively on a tree. **(2 marks)**

……

……

……

8. Explain the role of the following in protecting the body against invasion of disease causing organisms.

i) Gastric secretions. **(2 marks)**

……

……

……

ii) Clotting of blood. **(2marks)**

……

……

……

9. State two functions of lysosomes. **(2 marks)**

……

……

……

10. During an experiment, it was found that germinating bean seeds released 9.0 cm^3 of Carbon (IV) Oxide while 8.8cm^3 of Oxygen was consumed.

i) Calculate the RQ. **(2 marks)**

ii) Identify the respiratory substrate. **(1 mark)**

……

11. Identify the parts of the mammalian heart that plays the following roles.

i) Slows down the rate of pumping of blood. **(1 mark)**

……

ii) Prevents over dilation of the heart. **(1 mark)**

……

iii) Prevents backflow of blood during contraction of the ventricles. **(2 marks)**

……

……

12. The diagram below represents an apparatus used to collect specimen for study.



a) Identify the apparatus. **(1 mark)**

……

b) Name one specimen in each case below where the use of the apparatus is recommended.**(2 mks)**

Plant specimen……

Animal specimen. ……

c) Name one other apparatus that would be used together with the apparatus above to further enhance protection of the hands. **(2 marks)**

……

13. The cardiac muscles are said to be myogenic. What is the meaning of the term myogenic.

(1 mark)

……

……

14. A student mixed a sample of urine from a patient with Benedict's solution and boiled the mixture the colour changed to orange.

i) Name the food substance that was present in the urine. **(1 mark)**

……..

ii) Identify the disease that the patient was suffering **from** **(1 mark)**

……

iii) Name the organ in the patient may not be functioning properly? **(1 mark)**

……

15. Name three plant leaf excretory products. **(3 marks)**

……

……

16. Explain the importance of the grana in the process of photosynthesis. **(2 marks)**

……

……

……

17. Name **two** cell structures that synthesize the following cell organelles. **(2 marks)**

i) Ribosomes **(1 mark)**

……

……

i) Lysosomes **(1 mark)**

……

18. The diagram below represents a skull of a certain animal.



a) i) State the likely mode of nutrition for the animal from which the skull was obtained. **(1 mark)**

……

ii) Give two reasons for your answer in 18 a i) above. **(2 marks)**

……

……

……

b) With a reason identify the class of the animal from which the skull was obtained. **(2 marks)**

Class

……

Reason

……

……

19. Study the diagram below of a flower obtained from a plant.



a) The following key may be used to identify the plant on which the flower is growing.

1 a) Petals separate from sepals ……. go to 2.
b) Petals and sepals joined …….. Plant P.
2 a) Flower with four stamens …… Plant Q.
b) Flower with more than four stamens ……go to 3.
3 a)Ovary as tall as wide ……Plant R.
b) Ovary taller than wide ……. go to 4.
4 a) Flower has two petals …… Plant S.
b) Flower has more than two petals ……... Plant T.

i) Use the dichotomous key to identify the plant from which the flower was obtained. **(1 mark)**

……

ii) Write the steps followed to identify the plant. **(1 mark)**

……

……

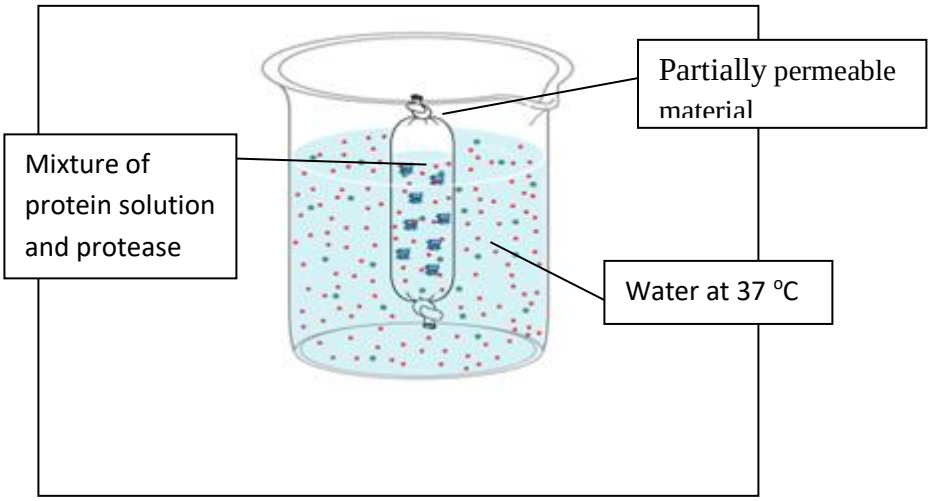
b) Use the observable features in the flower to identify the class of the plant from which it was obtained.

Class **…… (1mark)**

Reason **…….....**

…… (1 mark)

20. Form 2 students set up an experiment on diffusion as shown below. The set up was left to stand for 15 minutes.



a) What does the partially permeable material represent in a cell. **(1 mark)**

……

……

b) Give a reason for keeping the water at Water at 37 ^{o}C. **(1 mark)**

……

……

c) The students carried out a test for proteins using the **contents of the partially permeable material** after the 15 minutes. Suggest the conclusions made. **(1 mark)**

……

……

Explain your answer in 20 c) above. **(1 mark)**

……

……

……

d) Amino acids were found to be present in the water. Explain its source and presence there. **(2 marks)**

……

……

……

……

21. Name the carbohydrate storage compounds in the following: **(2 marks)**

i) Plant cells ……

ii) Fungi ……

22. a) Give two structural features that distinguish phagocytes from lymphocytes. **(2 marks)**

……

……

……

b) Identify one immunizable disease in Kenya. **(1 mark)**

……

23. State the causative agents of:

i) Cholera. **(1 mark)**

……

……

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

……

……

FORM 3 TERM 2 OPENER EXAMS

SERIES 2

CHEMISTRY

TIME: 2 HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGNATURE……

Instructions to candidates

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

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

(c)*Answer **ALL** questions in this paper*

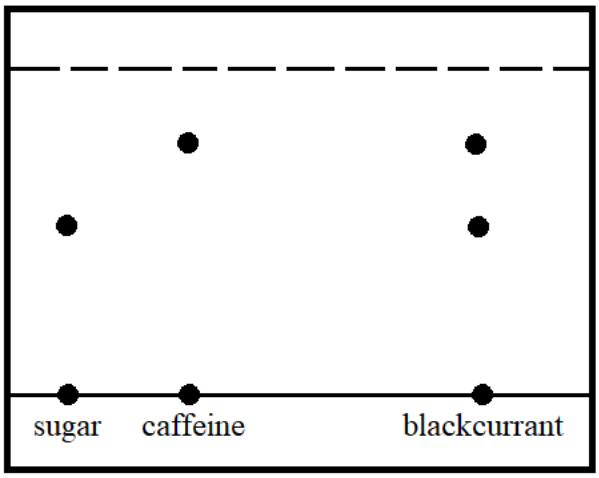
(d)*All working **MUST** clearly be shown in the spaces provided in this booklet.*

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

FOR EXAMINER'S USE ONLY.

Question	Maximum score	Candidate's score
1 – 29	80	

1. The figure below represents a chromatogram of sugar, caffeine and blackcurrant drink. Study it and use the information to answer the questions that follow.



a) State **two** properties that make it possible to separate the substances using this method.

(1 mark)

……

……

b) Water is not commonly used as a solvent in paper chromatography. State a reason for this.

(1 mark)

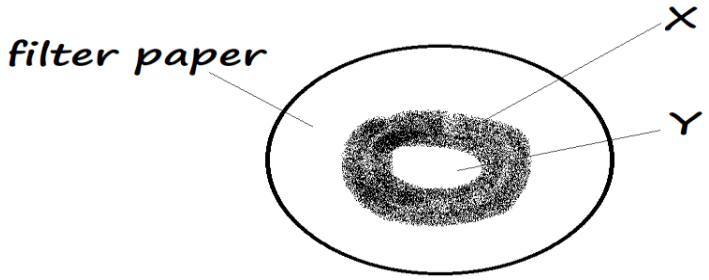
……

……

2. Atoms **W**, and **Z** are representations of elements in the periodic table. Their valences are 1 and 3 respectively. Write the formulae of their compounds in the table below. **(3 marks)**

	W	**Z**
Formula of oxide		
Formula of Hydrogen Carbonate		
Formula of chloride		

3. The diagram below represents a filter paper that was placed in a certain part of a Bunsen burner flame. Study it and use it to answer the questions that follow.



a) Which flame was most likely being investigated? **(1 mark)**

……

b) State the likely zones that resulted in the regions marked **X** and **Y**, stating the reason for your answer in each case **(4 marks)**

X ……..

……..

Y ……..

……..

4. Equal volumes of air was passed through two separate combustion tubes **A** and **B**. **Tube A** was packed with magnesium powder and **Tube B** packed with zinc powder. If the tubes were each heated when air was being passed through, and the resulting air collected, from which tube was the smallest volume of gas collected? Explain. **(2 marks)**

……

……

……

5. When a pink **solid V** is heated strongly it breaks down to form droplets of a colourless liquid, and a pale blue **residue Y**. When the liquid droplets were added back to **residue Y**, the pink colour of **V** was regained.

a) Identify:

i) Solid **V** **(½ mark)**

…….....

ii) Solid **Y** **(½ mark)**

…….....

b) What type of change does **residue Y** undergo when the colourless liquid was added back? Explain.

(1 mark)

……

……

c) State **one** application of the change illustrated by **solid V** and **residue Y** **(1 mark)**

……

……

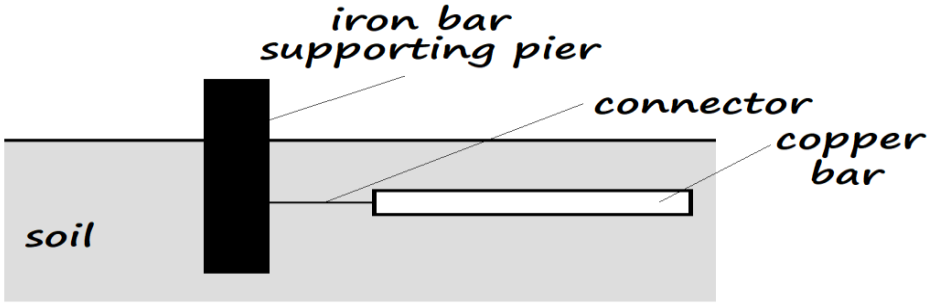
6. A sample of water at sea level was found to boil at temperatures between 102.5^{o}C and 104.5^{o}C. Explain this observation. **(2 marks)**

……

……

……

7. The diagram below represents a newly erected iron pillar to support a pier on the shallow parts of an ocean. The iron pillar is connected to a bar of copper as shown.



a) What may have been the intended purpose of the bar of copper? **(1 mark)**

……

……

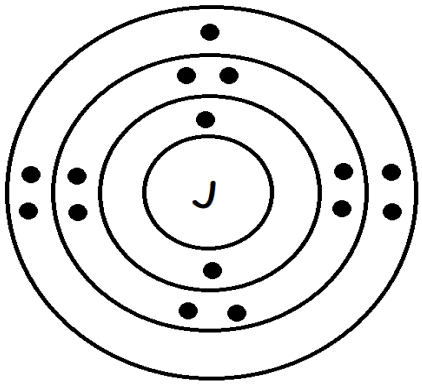
b) State and explain the expected observation after two weeks, in the setup above. **(2 marks)**

……

……

……

8. A student represented an atom of **element J** using the diagram below.



a) Write an equation for the formation of a stable ion of **element J** **(1 mark)**

……

b) Write the valency of **element J** and the oxidation number of its ion **(1 mark)**

Valency …….

Oxidation number……..

9. When the oxide of **metal D** is heated in the presence of **metal S**, the oxide is reduced. The oxide of **metal S** is not reduced when heated together with **metal F** and with **metal D**. The oxide of **metal F** is reduced by **metal S** and not by **metal D**. Arrange the three metals horizontally, in their order of decreasing reactivity. **(1 mark)**

……

10. Calculate the number of nitrogen atoms that are found in 1.4g of nitrogen gas **(2 marks)**

(N = 14, L = $6.023X10^{23}$)

……

……

……

11. Give the name of the processes that occur when the following substances are left in open watch glasses overnight:

a) Concentrated sulphuric (VI) acid **(1 mark)**

……

b) Sodium carbohydrate decahydrate **(1 mark)**

……

12. Alkali earth metals conduct electricity in the solid state but their compounds do not. Explain this observation **(2 marks)**

……

……

……

13. In an experiment, ammonium chloride was heated in a test tube. When a moist red litmus paper was placed in the rim of the test tube, the paper first changed blue then changed back to red. Explain this observation. **(2 marks)**

……

……

……

14. The electron arrangement for elements represented by letters W, X, Y and Z are as shown below

W: 2.8.6 X: 2.8.2 Y: 2.8.1 Z: 2.8.8

a) Select the element which forms:

i) A divalent anion **(1 mark)**

……

ii) A partially soluble hydroxide **(1 mark)**

……

b) Which element has the largest atomic radius? Explain **(2 marks)**

……

……

……

15. White crystals of sugar change to a black solid when mixed with excess concentrated sulphuric (VI) acid. Explain this observation **(1 mark)**

……

……

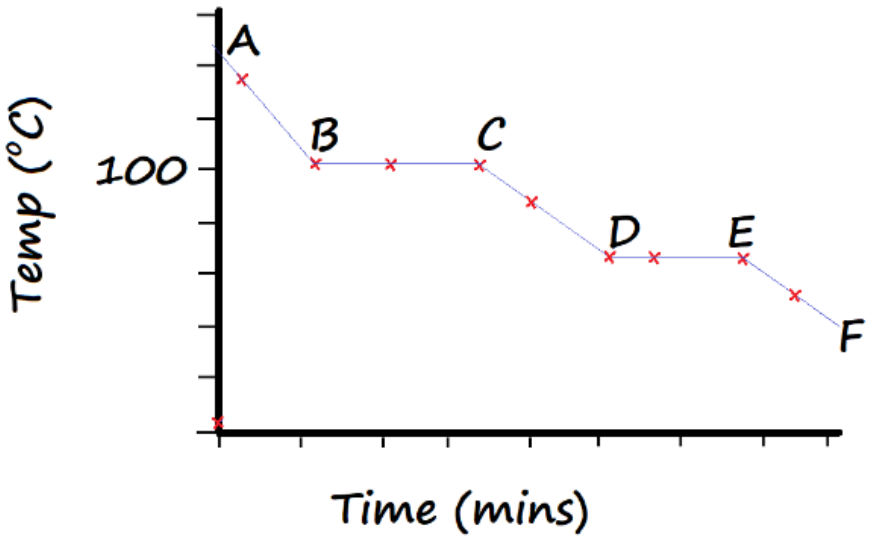
16. Nitrogen gas can be obtained through fractional distillation of liquefied air or by heating ammonium nitrate. The nitrogen obtained from fractional distillation of liquefied air is heavier than that extracted from ammonium nitrate. Explain. **(2 marks)**

……

……

……

17. The figure below is a sketch for the cooling curve for water. Study it and use it to answer the questions that follow.



a) In terms of Kinetic Theory, explain what happens to the molecules of water in region **CD**.

(2 marks)

……

……

……

……

b) In what physical state is water in the region **AB**? **(1 mark)**

……

……

18. A bottle containing a stock solution of nitric (V) acid has a label with the following information:
Density: $1.44gcm^{-3}$
Formula mass: 63g/mole
Percentage purity: 65%

a) Determine the concentration of this stock solution in moles per litre **(2 marks)**

.....

.....

.....

b) Calculate the concentration of a nitric (V) acid solution prepared by adding distilled water to $20cm^3$ of the stock acid solution to make $250cm^3$ of solution **(2 marks)**

.....

.....

.....

19.

a) State any **two** differences between a luminous flame and a non-luminous flame **(2 marks)**

.....

.....

.....

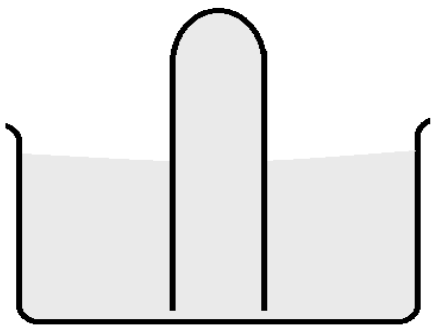
b) A luminous flame produces bright yellow light. Explain this observation. **(2 marks)**

.....

.....

.....

20. The setup below is a boiling tube inverted over a basin of chlorine water



a) State **two** observations that would be made when the setup is exposed to sunlight **(2 marks)**

……

……

b) Write a chemical equation for the reaction that occurs in **a)** above **(1 mark)**

……

21. A 5.0g sample of calcium carbonate powder was allowed to react with $25cm^3$ of a 1.2M hydrochloric acid solution until there was no further reaction. Calculate the mass of calcium carbonate that remained unreacted **(3 marks)**

(Ca = 40, C = 12, O = 16)

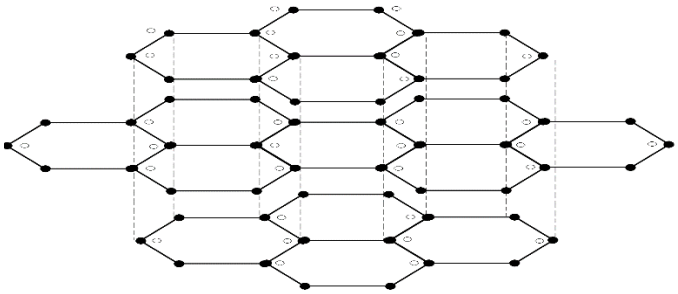
……

……

……

……

22. The diagram below represents one of the allotropes of carbon.



a) Define the term 'allotrope' **(1 mark)**

……

……

……

b) The structure has other particles represented with open dots as shown. How do these particles become a part of the structure of the allotrope? **(2 marks)**

……

……

……

c) State **one** use of this allotrope that does not rely on the presence of the particles mentioned in **b)** above **(1 mark)**

……

……

23. 50cm^3 of carbon (IV) oxide diffuses through a porous boundary in 15 seconds. Calculate the time taken by 75cm^3 of nitrogen (IV) oxide to diffuse through the same porous boundary under similar conditions **(2 marks)**

(C = 12, O = 16, N = 14)

……

……

……

24.

a) In terms of structure and bonding, explain why water has a boiling point of 100^{o}C while ethanol has a boiling point of 78.2^{o}C **(2 marks)**

……

……

……

……

b) Using dots (•) and crosses (×) to represent electrons, draw the structure of silicon (IV) oxide and label all the bonds that would hold together four units of the compound. **(2 marks)**

25. A fixed mass of a gas occupied a volume of $96cm^3$ at 70^oC and 700mmHg pressure. Calculate the volume that the gas would occupy at s.t.p. **(2 marks)**

……

……

……

……

26. Molten lead (II) chloride is known as a binary electrolyte. State the meaning of the term 'binary electrolyte'. **(1 mark)**

……

……

27. Magnesium and aluminium are both period 3 metals. Magnesium chloride converts to gas at 1437^oC while aluminium chloride converts to gas at 183^oC.

a) Give a reason for this disparity in temperatures for change in state. **(2 marks)**

……

……

……

b) Magnesium chloride conducts electricity in one of its physical states while aluminium chloride does not conduct electricity in all its physical states. Explain this observation. **(2 marks)**

……

……

……

c) State and explain the effects of solutions of magnesium chloride and aluminium chloride on both red and blue litmus papers **(2 marks)**

……

……

……

28. When 100cm^3 of a gaseous hydrocarbon $\mathbf{C_xH_y}$ burns in 400cm^3 of oxygen, 100cm^3 of that oxygen remains unused. 200cm^3 of carbon (IV) oxide and 200cm^3 of steam is formed.

a) Determine the equation for the reaction from the information given **(2 marks)**

……

……

……

……

b) Determine the values of **x** and **y** **(2 marks)**

……

……

……

29. Write ionic equations for the following reactions:

a) Sodium sulphate solution and lead (II) nitrate solution **(1 mark)**

……

……

b) Magnesium ribbon and iron (II) sulphate solution, when magnesium sulphate solution is formed. **(1 mark)**

……

……

FORM 3 TERM 2 OPENER EXAMS

SERIES 2

PHYSICS

TIME: 2 HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

Instructions to candidates

- *This paper consists of two sections **A** and **B**.*
- *Answer **all** the questions in the two sections in the spaces provided after each question*
- *All working **must** be clearly shown.*
- *Electronic calculators, mathematical tables may be used.*
- *All numerical answers **should be expressed** in the **decimal** notations.*
- You may use:

➢ 'gravitational acceleration, g, as $10m/s^2$

➢ Atmospheric pressure = 100, 000 Pa, Density of water = $1g/cm^3$

➢ Density of air = $1.25kg/m^3$, Density of mercury = $13\ 600kg/m^3$

For Examiner use only

SECTION	QUESTION	MAX MARKS	CANDIDATE'S SCORE
A	1 – 13	25	
B	14	11	
	15	13	
	16	11	
	17	10	
	18	11	
	TOTAL	80	

SECTION A (25 MARKS)

1. The figure 1 below shows a measuring cylinder, which contains water initially at level A. A solid of mass 10g is immersed in the water, the level rises to B.

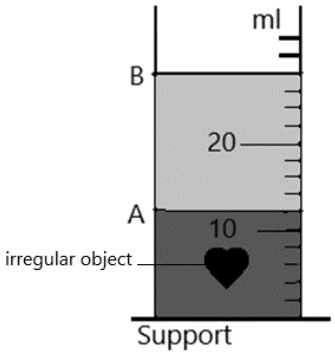


Figure 1

Determine the density of the solid [Give your answer to 1 decimal point.] **[3marks]**

2. Figure 2 (a) and (b) below shows capillary tubes inserted in mercury and water respectively.

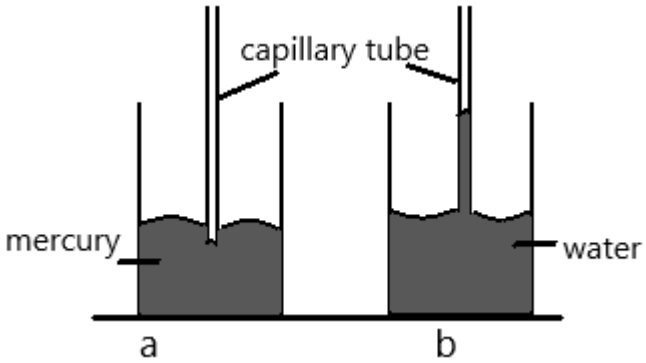


Figure 2

It is observed that in water the meniscus in the capillary tube is higher than the meniscus in the beaker. While in mercury the meniscus in the capillary tube is lower than the meniscus in the beaker. Explain these observations. **[2marks]**

3. A hole of area 2.0 cm^2 at the bottom of a tank 2.0 m deep is closed with a cork. Determine the force on the cork when the tank is filled with water. **[3 marks]**

4. In the set up shown in the figure 3 below, water near the top of the boiling tube boils while at the bottom remains cold.

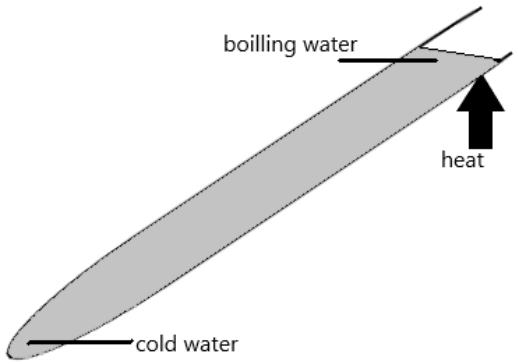


Figure 3

Give a reason for the observation. **[1 mark]**

5. State **any means** of increasing the sensitivity of a liquid – in – glass thermometer. **[1 mark]**

6. State one method of minimising friction between solid surfaces. **[1 mark]**

7. Define the term Centre of gravity of a body. **(1 mark)**

8. The diagram below shows apparatus used to observe the behaviour of smoke particle in air.

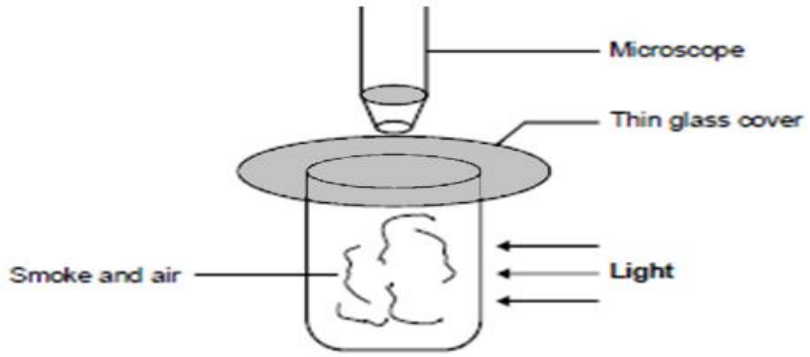


Figure 4

i. Why are smoke particles suitable for use in this experiment? **(1 mark)**

ii. State and explain the behaviour of the smoke particles **(2 marks)**

9. A student recorded the following measurements while using a meter rule: 5.32 cm, 4.9 cm and 8.013 cm. Which is the correct reading? Explain your **answer** **(2 marks)**

10. The figure below shows a wine glass. State and explain how the stability of the glass is affected if it is filled with wine. **(2 marks)**



Figure 5

11. Distinguish between the terms '**uniform velocity'** and '**uniform acceleration' (1 mark)**

12. The figure 6, below shows a section of a ticker tape. The dots were made at a frequency of 50 Hz. Determine the acceleration of the trolley pulling the tape. **(3 marks)**

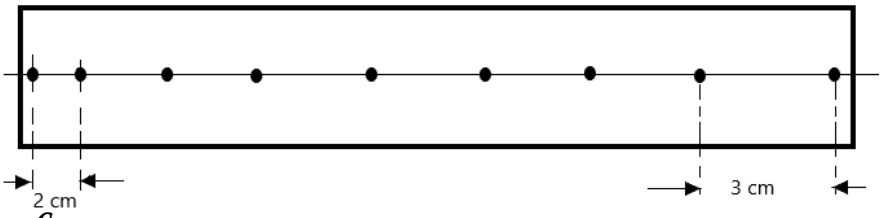


Figure 6

13. The diagram below represents a u-shaped glass tube sealed at one end and containing mercury. Determine the pressure of the gas as shown in the diagram below **(atmospheric pressure is 100000Pa)** **(2 marks)**

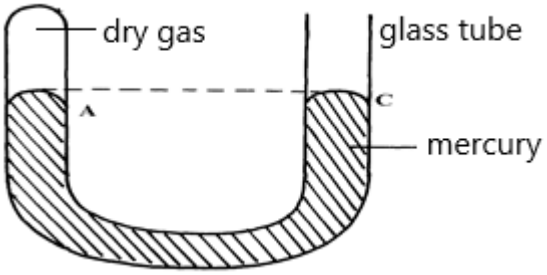


Figure 7

SECTION B. (55MARKS)

14.

a) Explain the following terms:

i. Streamline flow **(1 mark)**

ii. Turbulent flow **(1 mark)**

b) The figure below shows air flowing through a pipe of different cross-section areas. Two pipes A and B are dipped into water as shown.

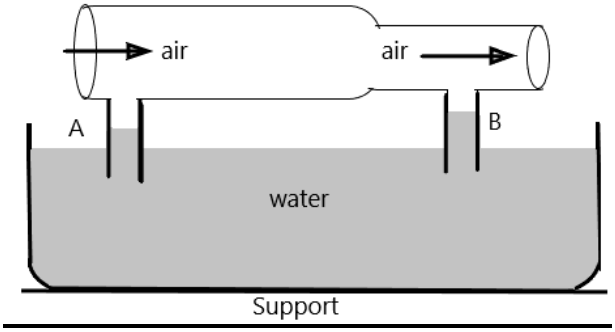


Figure 8

Explain the cause of difference in the levels of water in the pipes A and B. **[2marks]**

c) The figure below shows Bunsen burner. Explain how air is drawn into the burner when the gas tap is opened. **[3marks]**

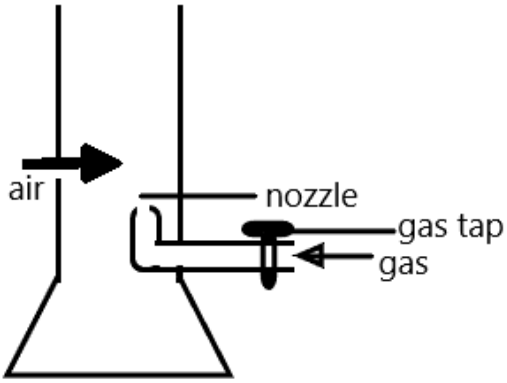


Figure 9

……

……

……

……

d) Water is not suitable for use as a barometric liquid. Explain **(2 marks)**

……

……

……

e) An aerofoil is dragged in the direction shown in air. Draw the arrangement of streamlines below and above the aerofoil (draw at least two lines on either side). **(2 marks)**



Figure 10

15.

a) Define the following terms: **(2 marks)**

i. Acceleration

ii. Displacement

b) The fig below shows a velocity – time graph for the motion of a certain body.

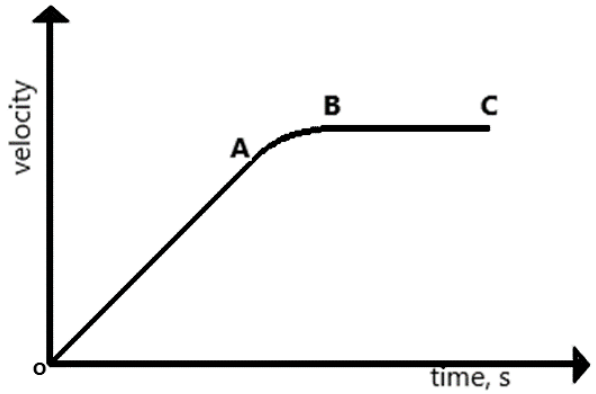


Figure 11

Describe the motion of the body in the region: **[3marks]**

i) OA

ii) AB

iii) B C

c) A car initially at 10m/s decelerates at 2.5m/s^2. Determine,

i.Its velocity after 1.5 s **[2marks]**

ii. The distance travelled in 1.5 s. **[2marks]**

iii. The time taken for the car to stop. **[2marks]**

d) The figure below shows the velocity-time graph of the motion of a stone thrown vertically upwards.

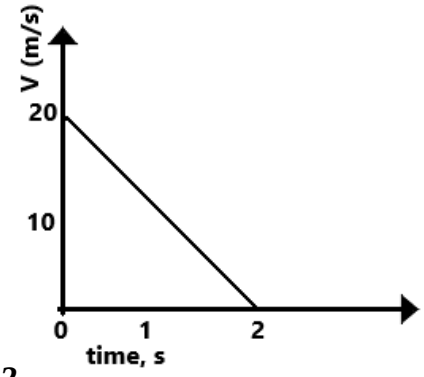


Figure 12

From the graph, determine the maximum height, s reached by the stone.
(Use space alongside the diagram) **(2 marks)**

16.

a) State the principle of moments **(1mark)**

b) A uniform metre-rule balances at the 35cm mark when a mass of 500g is placed at the 25cm mark as shown in the figure 13 below.

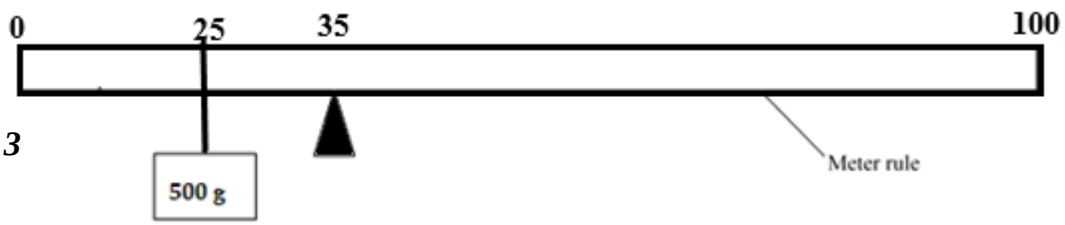


Figure 13

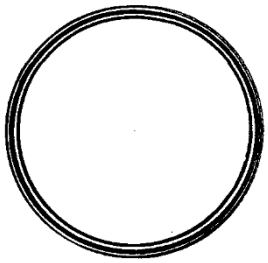
Determine:

i. The mass of the meter-rule **(3 marks)**

ii. With the metre-rule remaining on the knife-edge at the 35 cm mark, a mass of 125g is suspended from the 70 cm mark. The mass of 500g is moved until the rule is balanced. Determine the new position of the 500g mass **(3 marks)**

c) The figure below shows a ring of a thin steel washer. Determine the centre of gravity of the washer. **(2 marks)**

Figure 14



d) State **two** ways in which stability of a body can be increased **(2 marks)**

17.

a) State Hooke's law **(1 mark)**

b) The diagram below shows three identical springs which obey Hooke's law.

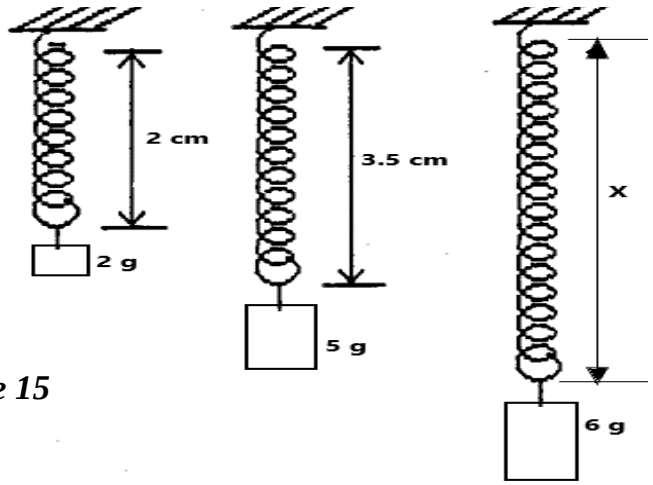


Figure 15

Determine the length **X**. **(3 marks)**

c) Sketch a graph of length of a helical spring against compressing force until the coils of the spring are in contact **(2 marks)**

d) Distinguish between brittleness and stiffness **(2 marks)**

e) State any two applications of a compressed spring **(2 marks)**

18.

a) State Newton's Second Law of motion. **(1 mark)**

b) A mass of 60 kg accelerates at 0.3 m/s^2 when a force of 200N is applied to it. Calculate the force that will make the mass move at uniform velocity. **(3 marks)**

c) A bullet of mass 30 g strikes a stationary wooden block and is completely embedded in it. The centre of mass of the wooden block rises by 0.18 m, figure 16.

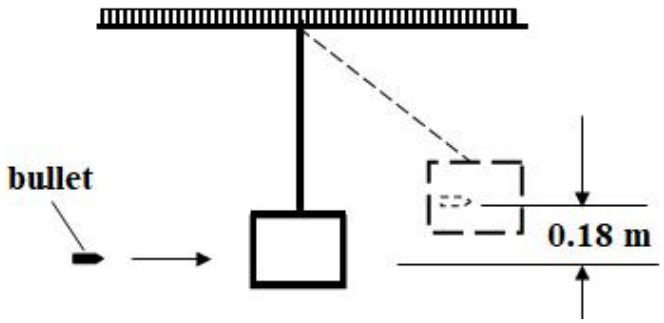


Figure 16

The wooden block has a mass of 370g. Determine the speed of the bullet when it just strikes the wooden block **(4 marks)**

d) Show that the impulsive force on an object can be expressed as F = ma. **(2 marks)**

FORM 3 TERM 2 OPENER EXAMS

SERIES 2

CHRISTIAN RELIGIOUS EDUCATION

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

Answer any five Questions

1. a). Outline seven teachings about human beings from the Biblical creation accounts.**(7mks)**

b). With reference to the story of the face of human beings in Genesis 3, state seven effects of sin on Adam and Eve. **(7mks)**

c). How does the church help to bring back members who have fallen from their faith? **(6mks)**

2. a). Describe the call of Moses (Exodus 3;1-22). **(8mks)**

b). Identify seven ways in which God demonstrated His love for the Israelites during the exodus. **(7mks)**

c). How do Christians in Kenya show respect for places of worship? **(5mks)**

3. a)Outline Jeremiah's prophecies about the messiah (Jeremiah 23: 5 - 6). **(6mks)**

b) State the similarities in the announcement of the birth of Jon the Baptist and that of Jesus. **(7mks)**

c) Identify lessons Christians learn from the life of Zachariah and Elizabeth. **(7mks)**

4. a)Describe the seven causes of conflict between Jesus and the Jewish religious leaders in his Jerusalem ministry. **(7mks)**

(b) Describe how Jesus revealed himself to the men going to Emmaus **(7mks)**

(c) Give six reasons why Jesus appeared to his disciples after his resurrection. **(6mks)**

5. a) Describe the call of first disciples Lk 5:1 – 11 **(8mks)**

b) Give reasons why Jesus chose the twelve disciples. **(6mks)**

c) Give six reasons why some Christians find it difficult to help the needy. **(6mks)**

6. a). Identify Peter's message on the day of Pentecost. **(7mks)**

b). Identify the fruits of the Holy Spirit as taught by Paul in (Gal 5:22-23). **(7mks)**

c). State works of the Holy Spirit among Christians today. **(6mks)**

FORM 3 TERM 2 OPENER EXAMS

SERIES 2

HISTORY AND GOVERNMENT

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGNATURE……

Instructions to candidates:

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

b) Answer all the questions in section A, three questions in section B and two questions in section C.

c) Answers to all questions must be written in the answer booklet provided.

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

e) Answer all questions in English.

For Examiner's use only

SECTION A	SECTION B			SECTION C		TOTAL

SECTION A (25 MARKS)

Attempt all the questions from this section.

1. State **two** branches of history. **(2 marks)**

2. Mention **one** material remain likely to be found in an archaeological site. **(1 mark)**

3. Give **two** examples of electronic sources of information on History. **(2 marks)**

4. Identify the type of writing that developed in Egypt as a result of early agriculture. **(1 mark)**

5. Name **two** communities that belong to Western Bantu. **(2 marks)**

6. List down **two** factors that facilitated the coming of the Arabs to the East African coast. **(2 marks)**

7. State the **main** advantage of barter trade. **(1 mark)**

8. Give **two** impacts of the wheel in Mesopotamia. **(2 marks)**

9. Define the term Industry. **(1 mark)**

10. Give one reason why the Berlin Conference was held. **(1 mark)**

11. Name **one** community in Kenya that collaborated with the British. **(1 mark)**

12. Identify the method of administration used by the British in Northern Nigeria. **(1 mark)**

13. Highlight **two** methods used by the British to acquire colonies in Africa. **(2 marks)**

14. Identify the woman leader of the Agiryama resistance. **(1 mark)**

15. State **two** ways of becoming a Kenyan citizen. **(2 marks)**

16. Give **one** initiative in which the Kenyan constitution can be amended. **(1 mark)**

17. List down **two** problems faced by IBEA Co. **(2 marks)**

SECTION B (45 MARKS)

Attempt any three questions from this section.

18. a) State **three** theories that explain the origin of man. **(3 marks)**

b) Explain **six** uses of fire by the early man. **(12 marks)**

19. a) State **five** advantages of telecommunications. **(5 marks)**

b) Explain **five** negative effects of modern means of communication. **(10 marks)**

20. a) Give **five** causes of the Nandi resistance. **(5 marks)**

b) Explain **five** reasons why armed resistance failed in Kenya. **(10 marks)**

FOR MARKING SCHEMES CONTACT *0746 222 000 / 0742 999 000*

21. a) Identify **five** benefits enjoyed by assimilated Africans in Senegal. **(5 marks)**

b) Explain **five** effects of Direct Rule in Zimbabwe. **(10 marks)**

SECTION C (30 MARKS)

Attempt any two questions from this section.

22. a) Give **five** limitations to right to life. **(5 marks)**

b) Explain **five** socio – economic responsibilities of a Kenyan citizen**.** **(10 marks)**

23. a) State **five** effects of conflicts in the society. **(5 marks)**

b) Describe **five** peaceful methods of resolving conflicts. **(10 marks)**

24. a) Identify **three** aspects of democracy. **(3 marks)**

b) Explain **six** principles of democracy. **(12 marks)**

FORM 3 TERM 2 OPENER EXAMS

SERIES 2

GEOGRAPHY

TIME: 2¾ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGNATURE……

Instructions to candidates

(a) *Write your name, admission number and class in the spaces provided above.*
(b) *This paper has **two** sections: **A** and **B***
(c) *Answer **all** the questions in section **A***
(d) *Answer **question 6** and any other **two** questions from section **B***
(e) *All answers must be written in the spaces provided after Question 10.*

For Examiner's Use Only

Section	Questions	Candidate's Score	Maximum Score
A	1 – 5		25
B	6		25
			25
			25
	Total Score		100

SECTION A

*Answer **all** the questions in this section*

1. (a) Give three components of solar **system** **(3mks)**

(b) State two effects of the rotation of the **earth** **(2mks)**

2. (a) Name three types of folds **(3mks)**

(b) State two factors that determine the folding of crustal rocks **(2mks)**

3. (a) What is forestry **(2mks)**

(b) State three factors that has led to the reduction of the area under forests on the slopes of Aberdare ranges **(3mks)**

4. (a) Name three forms of precipitation that commonly occur in East Africa **(3mks)**

(b) What is a Stevenson screen? **(2mks)**

5. (a) Name two scales used to measure intensity of an earthquake **(2mks)**

[b]Give three causes of earthquakes **(3mks)**

SECTION B(75 MARKS)

Answer question 6 and any other two questions

6. Study the map of Kisumu East (1:50,000) sheet 116/2 provided and answer the following questions

(a) (i) Give the six figure grid reference of Air photo principal point 92/KE/3153 **(2mks)**

(ii) Measure the distance of the road C544 from the Rabour market to Nyamonge junction. Give your answer in **kilometers** **(2mks)**

(b) Citing evidence from the map give four social activities carried out in the area covered by the map **(8mks)**

(c) Describe the drainage of the area covered by the map **(8mks)**

(d) Draw a square 10cm by 10cm to represent the area to the East of Easting 00 and between northing 80 to northing 90 **(1mk)**

On the square mark and label ;

[i]All weather road.

[ii]Kano plain;

[iii) River Ombeyi

[iv] Papyrus swamp. **(4mks)**

7. (a) Name two types of earth movements **(2mks)**

(b) Describe the origin of the continents according to the theory of continental drift **(8mks)**

(c) Name three types of faults **(3mks)**

(d) (i) Students are planning to carry out a field study of faulting in Rift valley. State four importance of having a pre-visit of the area **(4mks)**

(ii) Name any three features they are likely to identify which are as result of faulting **(3mks)**

(iii) State three methods they are likely to use in the data recording **(3mks)**

(iv) State two problems they are likely to experience during the study **[2mks]**

8. (a)(i) Give the difference between mass wasting and weathering **(2mks)**

(ii) State four physical conditions that influence the rate of mass movements **(4mks)**

(b) Explain the following process of weathering

(i) Hydration **(2mks)**

(ii) Oxidation **(2mk)**

(iii) Frost action **(3mks)**

(c) (i)Give three processes of slow mass movements **(3mks)**

(ii) Outline the effects of mass wasting on the environment **(4mks)**

9. a(i) Differentiate between the long and cross profile of a river **(2mks)**

(ii) Give any five characteristics of the river in the youthful stage **(5mks)**

(iii) Name three types of river erosion **(3mks)**

b (i) explain three ways in which river transport its load **(6mks)**

(ii) Name four features formed by river deposition in old stage **(4mks)**

(c) (i) What is river rejuvenation **(2mks)**

(ii) Outline 3 causes of river rejuvenation **[3mks]**

10. (a) State six factors that influences exploitation of minerals **(6mks)**

(b) (i) Name two surface mining methods **(2mks)**

(ii) Give three uses of soda ash **(3mks)**

(c)State four effects of mining on the environment **(4mks)**

(d) Name any two oil producing countries in the Middle East **[2marks]**

(e) Explain four economic benefits of mining **(8mks)**

FORM 3 TERM 2 OPENER EXAMS

SERIES 2

AGRICULTURE

TIME: 2 HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGNATURE……

INSTRUCTION TO CANDIDATES

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

*2.Answer **ALL** questions in section **A** and **B***

***3.ANY** Two questions from section **C**.*

SECTION	MARKS	CAND. SCORE
A	30	
B	20	
C	40	
TOTAL SCORE	**90**	

SECTION A (30MKS)

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

1. Give **two** characteristics of plantation farming. **(1mk)**

……

……

2. Name **two** chemical processes of weathering. **(1mk)**

……

……

3. State **two** advantages of organic farming. **(1mk)**

……

……

4. Outline **two** effects of soil organisms which benefit plant growth. **(1mk)**

……

……

5. Give **two** ways in which organic mulch help to conserve water in the soil. **(1mk)**

……

……

……

6. Give **two** types of labour records. **(1mk)**

……

……

7. Outline **two** causes of Hardpan in the soil **(2mks)**

……

……

8. State **four** importance of raising seedlings in a nursery bed. **(2mks)**

……

……

……

……

9. Give **four** symptoms of potassium Deficiency in plants **(2mks)**

……

……

……

……

10. State **three** reasons for top dressing pasture. **($1\frac{1}{2}$mks)**

……

……

……

……

11. Give **four** reasons for training crops as a field practice **(2mks)**

……

……

……

……

……

12. State **three** activities the farmer carries out on a store before storing grains. **($1\frac{1}{2}$mks)**

……

……

……

13. Give **four** desirable characteristics of certified seeds. **(2mks)**

……

……

……

……

14. (a) Outline **two** characteristics of nitrogenous fertilizers. **(1mk)**

……

……

(b) Give the forms in which the following elements are available to plants: **(1mk)**

(i) Phosphorous: …….

(ii) Potassium.……

15. Give **four** factors that influence the choice of tools and equipment used in Primary cultivation.

(2mks)

……

……

……

……

16. State **four** methods of weed control. **(2mks)**

……

……

……

……

17. Define the following terms as used in crop production.

(a) Trellising **(1mk)**

……

……

(b) Stooking **(1mk)**

……

……

18. Give **two** advantages of strip grazing **(1mk)**

……

……

19. State **four** advantages of mixed farming. **(2mks)**

……

……

……

……

SECTION B. (20 MARKS)

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

20. Study the diagram below and answer the questions that follow. The illustrations represent a method of crop propagation.



A B

(a) Name the crops (s) propagated by illustrations: **(1mrk)**

……

……

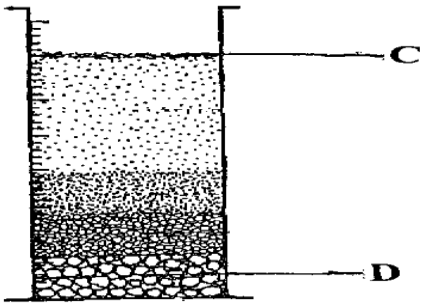
(b) Give **three** factors that promote the rooting of illustration **A.** **(3mrks)**

……

……

……

21. The diagram below illustrates an experiment using garden soil. Study it carefully and answer the question that follow.



(**a**) What was the aim of the experiment? **(1mrk)**

……

(b) Name the parts labeled **C** and **D.** **(2mrks)**

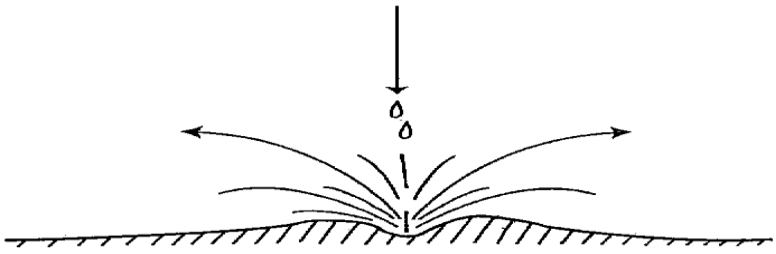
C……

D……

(c) Name the property of soil being investigated. **(1mrk)**

……

22. The illustration below shows a type of soil erosion. Study it carefully and answer the questions that follow.



(a) Identify the type of erosion illustrated. **(1mrk)**

……

(b) Give **two** soil factors that increase the rate of soil erosion. **(2mrks)**

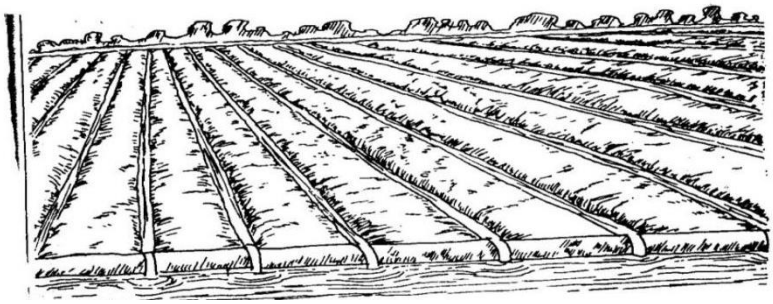
……

……

(c) Name **one** agent of soil erosion. **(1mrk)**

……

22. The diagram below illustrate a method of irrigation carried out on the farm



(i) Identify the type of irrigation shown above. **(1mk)**

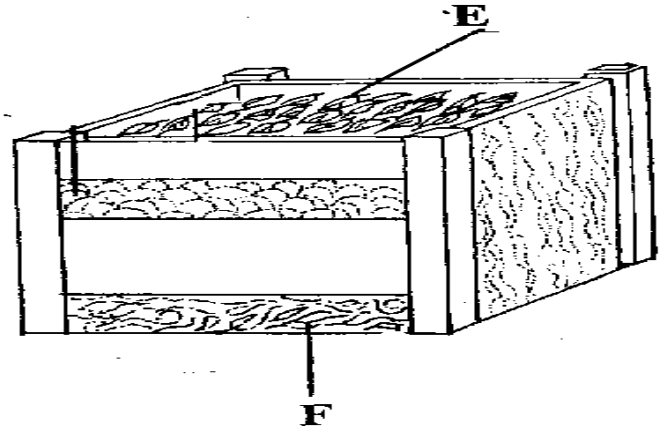
……

(ii) Name **two** advantages of the above method. **(2mks)**

……

……

23. The diagram below represents a method of manure preparation. Study it carefully and answer the questions that follow.



(a) Identify the type of manure being prepared. **(1mrk)**

……

(b) Name the parts labeled **E** and **F.** **(1mrk) .**

E……

F……

(c) Give **three** disadvantages of manures. **(3mrks)**

……

……

……

……

SECTION C (40MARKS)

Answer any TWO questions from the section in the spaces provided

24. (a) Give **six** precautions observed in pruning mature tea **(6 mks)**

(b) Describe the procedure followed when collecting a soil sample form the field for testing in the laboratory (**6 mks)**

(c) Outline **four** advantages of intercropping crops **(4 mks)**

(d) State **four** factors considered before selecting a farm enterprise. **(4 mks)**

25. Describe the production of tomatoes under the following sub-headings:

i) Ecological requirements of tomato plants **(5mks)**

ii) Land preparations **(4mks)**

iii) Transplanting **(7mks)**

iv) Disease control **(4mks)**

27. a) State **five** factors that influence soil productivity. **(5mks)**

b) State **five** qualities of mother plant used during grafting. **(5mks)**

c) Give **two** types of mulching materials. **(2mks)**

d) State **four** agricultural practices which pollute water. **(4mks)**

e) Describe precautions followed when harvesting coffee. **(4mks)**

FORM 3 TERM 2 OPENER EXAMS

SERIES 2

BUSINESS STUDIES

TIME: 2 HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGNATURE……

Instructions to candidate;

Answer all questions in this paper in the spaces provided after each.

For examiners use only

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Score															

Question	16	17	18	19	20	21	22	23	Total
Score									

SECTION A:

Answer all questions

1. Outline four ways in which a business can perform its social responsibilities. **(4 Marks)**

……

……

……

……

2. Outline four benefits that may accrue to a business from a country's political stability. **(4 Marks)**

……

……

……

……

3. Identify four reasons why firm with popular products find it necessary to continually advertise the same products. **(4 Marks)**

……

……

……

……

4. Classify the following factors into either internal or external business environment. **(4 Marks)**

Factor	Classification
a) Customers	
b) Objectives	
c) Suppliers	
d) Management	

5. State four ways in which clothes satisfy human wants. **(4 Marks)**

……

……

……

……

6. The following are description of features of human wants. Identify the features that relate to the descriptions in the spaces provided... **(4 Marks)**

No	Description	Feature
(a)	A person is unable to fully satisfy all wants.	
(b)	Once satisfied, they have a tendency of being felt again.	
(c)	Some wants are satisfied together.	
(d)	The same want can be satisfied using different resources.	

7. Identify four differences between artificial resources and human resources. **(4 Marks)**

……

……

……

……

……

……

8. Explain four reasons that make entrepreneurship important to an economy. **(4 Marks)**

……

……

……

……

……

……

……

……

9. Lizzy wishes to be employed as a manager. Identify four qualities she should possess.

(4 Marks)

_____

_____

_____

_____

_____

10. Outline four factors that should be considered before buying office equipment. **(4 Marks)**

……

……

……

……

11. Fill in the table with the correct term as used in business studies. **(4 Marks)**

	Definition	**Term**
a)	Study of all activities that are carried out in an office	
b)	Study of how people struggle to meet their endless needs using limited resources	
c)	Study of systematic ways of recording and reporting business information for decision making	
d)	Study of the process of identifying a business opportunity and acquiring the necessary resources to start and run it.	
e)	Study of trade and aids to trade	

12. Identify the types of wholesalers described below. **(4 Marks)**

Description	Type of wholesaler
a) Deals with a wide range of goods of a given line of products.	
b) Deals in a particular good from a given line of products.	
c) Deals in wide range of products.	
d) Specializes in selling to other specialized wholesalers.	

13. Outline four factors considered in a choice of an office layout. **(4 Marks)**

……

……

……

……

14. Highlight four circumstances under which a public corporation can be dissolved.

(4 Marks)

……

……

……

……

……

……

15. Outline four circumstances in which the government may be involved in a business. **(4 Marks)**

……

……

……

……

……

……

16. Outline four malpractices by traders against which consumers may need protection by the government. **(4 Marks)**

……

……

……

……

……

17. Identify four circumstances under which face to face communication may be ineffective **(4 mks)**

……

……

……

……

……

……

18. Identify four ways in which in which consumers can suffer if there is no warehousing. **(4 Marks)**

……

……

……

……

19. Outline four differences between insurance and assurance. **(4 marks)**

Insurance	**Assurance**
a)	
b)	
c)	
d)	

20. Outline any four benefits of "pooling of risks" to insurance company. **(4 Marks)**

……

……

……

……

Section B: Answer any two questions from this section.

21. With the aid of a diagram, show the effect of an increase in demand that is accompanied by a corresponding increase in supply. **(10 marks)**

22. Explain five circumstances under which a manufacturer may prefer to sell directly to the consumer. **(10 Marks)**

23. Explain five reasons that would justify the government establishing electric trains in the country. **(10 Marks)**

FORM 3 TERM 2 OPENER EXAMS

SERIES 2

ENGLISH

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

(FUNCTIONAL SKILLS, CLOZE TEST AND ORAL SKILLS)

INSTRUCTIONS

a) Write your name and index number in spaces provided

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

c) Answer ALL questions

d) All answers must be written in the spaces provided

FOR EXAMINER'S USE ONLY

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

Q1. Imagine that at the beginning of the year you made a resolution as the school captain to make some changes on allocating the prefects on duty their weekly responsibilities, launch a monthly tree planting day in school, come up with the reading culture strategy and to improve on the cleanliness of the compound. Write an **Internal Memo** to all prefects clearly explaining how these resolutions will be implemented in the school. **(20marks)**

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

Q2. Read the passage below and fill in each blank space with the most appropriate word.

"Good morning, ladies and gentlemen and welcome …a…… this session. Today I'm going to talk about the science of success. In order to become …b……, the one thing …c…… need above all else is self-discipline. How little attention most of us give to that great subject!""I want to tell you something; I want to suggest to you in the beginning of …d…….. talk that in order to make the …e……. use of self-discipline, you've got to have a system to go by. You've got to keep your …f…… occupied at all times …g…… all the things and all the circumstances and all the desire of …h……. choice, and strictly off the things that you don't want" "Here's self-discipline in its …i…….. order; keeping your mind fixed on the …j…… you do want in life, and off the things you don't want." ***(Adopted from, Success Habits, by Nepoleon Hill)***

<u>3. Study the item below and answer the questions that follow</u>

Deputy Principal: Good afternoon Juma.

Juma : Good afternoon sir.

Deputy Principal: Why do you think you will make a better School Captain than Chebet?

Juma: I'm the current Deputy School Captain sir, I was a captain when I was in primary school so I feel I have a lot of experience in leadership. Remember sir, I'm the one who solved the conflict between Form Three and Four students when the problem of watching football match or movie arose in the dining hall last term.

Deputy Principal: That is commendable Juma, however, we can see in your academics report that you dropped in the end term examination yet Chebet who is also the school deputy captain excelled in all her subjects. That is why I would advise you to be our academic captain instead. It will help you better your grades because you will be in charge of the library as well.

Juma: It is well, thank you sir, let me go for Academic Prefect

(a)

i.Identify Four elements that makes this negotiation successful **(4marks)**

……

……

……

……

……

ii. Why would you describe this negotiation as win-win? **(2 marks)**

……

……

……

iii. Describe how you would deliver the last sentence of Juma effectively **(2marks)**

……

……

……

……

(b)

For each of the following words, provide another two words that are pronounced the same **(6 marks)**

i. Key……

ii. Cite……

Sent……

(c)

Underline the silent letters in the following words (4 marks)

i. Yacht

ii Sword

iii Chimney

iv Herb

(d)

Which intonation will you use when saying the following (3marks)

(i) What is your name?.....

(ii) You are great!……

(iii) I have done my assignment……

(e) Imagine that as you a lead a group discussion, some members are murmuring, some are dosing while others are completely absent minded. Explain Four things you will do to make them active participants. **(4marks)**

……

……

……

……

……

……

……

……

(f) You have seen your classmate sneaking out of school during games time, how would you go about reporting him/her to the teacher on duty who is in the field watching hockey. **(5marks)**

……

……

……

……

……

……

……

……

……

……

THIS IS THE LAST PRINTED PAGE

FORM 3 TERM 2 OPENER EXAMS

SERIES 2

KISWAHILI

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGNATURE……

Maagizo

a. Jibu maswali **yote**

b. Majibu yote yaandikwe katika nafasi ulizoachiwa katika karatasi hii ya maswali

c. Majibu yote **lazima** yaandikwe kwa lugha ya Kiswahili

d. Karatasi hii ina kurasa 10 zilizopigwa chapa

e. Watahiniwa ni lazima wahakikishe kuwa kurasa zote za karatasi hii zimepigwa chapa sawasawa na kuwa maswali yote yamo.

Kwa matumizi ya mtahini pekee

Swali	Upeo	Alama
1	15	
2	15	
3	40	
4	10	
Jumla	80	

1. UFAHAMU

Soma makala yafuatayo kisha ujibu maswali.

Ulimwengu mzima ulisimama ghafla na shughuli za kawaida zikakwama katika mataifa yote duniani. Walimwengu walipata kibarua kigumu mno huku shughuli za uchukuzi wa kimataifa zikitatizika kwa njia zisizomithilika. Ikumbukwe pia kuwa masomo yalitatizika pakubwa huku viwango vyote vya shule vikifungwa.

Vituo vya afya navyo vilifurika kwa msongamano mkubwa wa watu huku wahudumu wa afya wakilemewa na idadi kubwa ya wagonjwa. Wahudumu hao walijipata kwenye wadi na vyumba wa wagonjwa mahututi na wengine wengi walifariki . Wengineo walikosa nafasi ya matibabu au ya kulazwa katika hospitali wanazohudumu.

Uchumi uliathirika pakubwa. Watu wengi walipoteza kazi zao. Wengine walitumwa nyumbani kwa likizo bila malipo nao wengine wakikatwa mishahara kwa asilimia kubwa. Biashara nazo hazikusazwa na gonjwa hili kwani nyingi zilifungwa wengine wakipata hasara chungu nzima. Benki zilijipata kwa njia panda kwa wateja kushindwa kulipa mikopo.

Usisahau kuwa maelfu ya watu walipoteza maisha yao huku wengine wengi wakiendelea kukabiliana na makali ya ugonjwa wa Covid-19 ambayo kwa sasa ni uhakika kuwa umejua kuwa ndio ninaozungumzia. Kenya, kama mataifa mengine ulimwenguni ililazimika kukabiliana na janga hili.

Miongoni mwa dalili za mapema za maambukizi ya gonjwa hili zilikuwa kukohoa, kushindwa kupumua au ugumu wa kupumua, joto jingi au baridi kali mwilini, maumivu ya misuli au mwili, kutapika au kuendesha, kupoteza hisia za kuonja na kunusa miongoni mwa mengine. Yeyote aliyeonyesha dalili hizi alishauriwa kujitenga na kwenda hospitalini mara moja.

Ilikuwa muhimu kujilinda dhidi ya virusi hivi. Watu walivaa barakoa kila wakati walipoenda kwenye watu. Walikumbushwa kuosha mikono yako kwa maji yaliyotiririka na sabuni au kuitakasa. Waliepuka mikusanyiko ya watu na kuzingatia umbali wa mita moja walipokumbana na wenzao. Watu walishauriwa kukaa nyumbani kama iliwezekana. Wenye magonjwa mengine kama shinikizo la damu, ukimwi, saratani, kisukari miongoni mwa mengine na pia watu wa umri wa juu walishauriwa na wataalamu wa afya kuwa makini zaidi kwani walikuwa hatarini zaidi.

Hebu tugeukie mikakati mbali mbali iliyowekwa na serikali ya Kenya tangu kuliporipotiwa kisa cha kwanza nchini. Serikali ilitangaza kufungwa kwa shule. Kando na kufungwa huko, kafyu ya saa moja usiku hadi saa kumi na moja asubuhi iliwekwa hapo awali, hatua iliyolegezwa baadaye. Kufungwa kwa uchukuzi wa kimataifa kulitangazwa huku uchukuzi nchini ukidhibitiwa kwa kupunguzwa kwa idadi ya watu kwenye uchukuzi wa uma. Mikusanyiko ya watu ilipigwa marufuku nazo kanisa zikifungwa japo kwa muda. Idadi ya watu katika arusi na mazishi ilipunguzwa mno. Maeneo ya burudani pia yalifungwa kwa muda nayo maeneo ya maabadini yalifungwa miongoni mwa mikakati mingine.

Baada ya miezi kadhaa, makali ya janga hili tandavu yalizidi kuwakumba wakenya huku kufungwa wa nchi kukiendelea kuathiri shughuli ya kawaida za kujikimu. Serikali iliweka mikakati ya kuinua uchumi. Wakenya wa viwango vya chini walitumiwa pesa za kujikimu huku wafanyibiashara wadogo wakiinuliwa kwa mikopo. Serikali pia **ilizirai** benki kuzungumza na wadeni wao na kuwasogezea nyakati za kulipa. Ikumbukwe pia serikali ilipunguza au ushuru kwa Wakenya wenye

kipato cha chini. Serikali pia ililazimika kulegeza mikakati kadhaa ili kuwapa Wakenya nafasi ya kujichumia. Saa za Kafyu zilipunguzwa huku uchukuzi wa kitaifa na kimataifa ukifunguliwa upya. Shule pia zilianza kufunguliwa japo kwa watahiniwa. Wamiliki wa maeneo ya burudani walinufaika na kufunguliwa kwa maeneo hayo. Viongozi wa kidini na wafuasi wao walikuwa na kila sababu ya kutabasamu baada ya serikali kuwafungulia maeneo ya kuabudu.

Wakenya waliendelea kuhimizwa kufuata kanuni za wizara ya Afya dhidi ya Covid -19. Hii iliendelea huku Wakenya wakilaumiwa kwa kutovaa barakoa, kuendelea kutangamana katika mikutano ya kisiasa, kutoosha wala kutakasa mikono,kutozingatia saa za kafyu miongoni mwa mengine.

Ulimwengu uliendeleza mchakato wa kutafiti na kutafuta chanjo ya korona huku baadhi ya mataifa wakitangaza kupiga hatua kubwa na kwamba binadamu wangekwamuliwa baada ya kipindi kifupi. Kujilinda kulibaki kuwa chanjo kuu.

Maswali

a. Ipe taarifa hii anwani mwafaka. **(alama 1)**

……

b. Je, ni kwa njia gani ambayo Covid-19 ilizuia utangamano wa kimataifa. **(alama 2)**

……

……

……

c. Eleza kinaya inayojitokeza kwa Covid-19 na wahudumu wa afya. **(alama 2)**

……

……

……

d. Tambua madhara mawili ya kiuchumi yaliyosababishwa na Covid -19 **(alama 2)**

……

……

……

e. Taja dalili yoyote moja ya maambukizi ya virusi vya korona. **(alama 1)**

……

……

f.Wakenya walikuwa kizingiti katika vita dhidi ya korona. Thibitisha. **(Alama 3)**

……

……

……

……

……

g. Taja mikakati miwili iliyowekwa na serikali ya Kenya kukabiliana na virusi hivi. **(alama 2)**

……

……

……

h. Eleza maana ya maneno yafutayo jinsi yalivyotumika kifunguni **(Alama 2)**

i) Kafyu

.....

ii) Ilizirai

.....

2. MUHTASARI

Soma kifungu kifuatacho cha habari kisha ujibu maswali yanayofuatia.

Ukiwa mtoto unadhani ulimwengu ni kipande kimoja cha keki kilicho kitamu mithili ya asali. Hakuna dhiki, hakuna mateso, hakuna kuhuzunika kwa aina yoyote. Neno huzuni linasikika masikioni kama neno lisiloelekea kwenye uhalisia wowote. Kwa watoto, dunia imejaa raha, starehe na vicheko visivyoisha. Maisha ni ahadi njema, yenye matokeo ya kufurahisha na kustarehesha tu, sio kudhikisha na kuhuzunisha.

Huyu tunayemzungumzia hapa ni mtoto ambaye hajajua kubainisha kitendekacho mkono wake kwa kushoto na kile kinachofanyika hasa katika mkono wake wa kulia. Hata hivyo, jinsi mtoto anavyoendelea kukua na kufahamikiwa na mambo, vigambo na kadhia zinazoendelea katika mazingira yake, anabainikiwa na mengi machungu ambayo huleta huzuni, sio raha.

Hebu tuanze na nyumbani kwao mtoto. Aghalabu, watoto wote hupendwa kwao nyumbani, iwapo wazazi wao ni watu waungwana, na wana nafasi ya kulea watoto wao bila taabu. Hata hivyo watoto huchapwa pale wanapokuwa watundu, jambo ambalo huwahuzunisha sana, japo ni wajibu wa wazazi kwasababu, kama isemwavyo, mcha mwana kulia hulia yeye. Pili, inajulikana wazi kwamba watoto wengi siku hizi huenda shule. Huko shule, wao hupendelea sana kucheza kuliko kusoma. Ili wasome kama inavyotakikana, ni sharti waelekezwe barabara katika njia hiyo na

walimu wao. Katika kuelekezwa huku, walimu wanaweza kulazimika kuwaadhibu, hasa wale watoto ambao huzembea na kutofanya kazi zao wanazopewa kufanya nyumbani kama kawaida ya mfumo wa shule ilivyo. Watoto wa aina hii wanapatiwa adabu raha hujitenga na huzuni kuwatawala.

Huzuni, hivyo basi, inaonekana ya kuwa ni uso wa pili katika maisha ya mwanadamu, uso wa kwanza ukiwa raha. Na kwa hakika wakati mmoja au mwingine, azongwe na huzuni. Inajulikana wazi kwamba wanadamu wote hawapendi huzuni asilani na hakika kabisa kila binadamu huchukia huzuni na kustahabu raha. Hata hivyo, raha humjia binadmu kwa nadra sana, ilhali huzuni humvamia wakati wowote, hata akiwa yumo katikati ya kustarehe. Si tu, inajulikana dhahiri shahiri kwamba hakuna mtu asiyewahi kuonja huzuni, japo wapo watu wengi kwelikweli wasiowahi kuonja raha maishani mwao.

Zingatia mtoto anayezaliwa, halafu wazazi wake wanaaga dunia, pengine katika ajali, kabla mtoto mwenyewe hajaweza kujikimu. Mtoto huyu anaishi kutegemea jamaa za wazazi wake. Watu hawa wasipokuwa na nafasi wao wenyewe kimaisha pamoja na ukarimu unaohitajika basi mtoto anateseka na kuhuzunika sana katika maisha yake yote. Ama zingatia mtoto anayetupwa na mamake kijana, aliyempata bila kupanga. Hata mtoto huyu akiokotwa na kulelewa na wahisani, maisha yake yatakuwa ya taabu, dhiki na huzuni. Au zingatia mtoto anayelelewa na mama wa kambo anayeondokea kuwa mwovu. Mtoto huyu atakayoijua ni kurudi nyumbani usiku akiimba nyimbo za kilevi, kuita mkewe kwa sauti kubwa, kuitisha chakula na kufurahia kupiga watoto wote na mama yao ndipo apate usingizi mnono. Mtoto mwenye baba wa aina hiyo atakayeijua ni huzuni tu, si raha asilani.

(a) Fupisha aya nne za mwanzo (maneno 90 – 100) **(alama 8)**

Matayarisho.

……

……

……

……

……

……

……

……

……

……

……

Jibu

……

……

……

……

……

……

……

……

……

……

(b) Ukizingatia aya ya mwisho, eleza hali mbalimbali zinazowatia watoto huzuni. **(alama 5)**

(Maneno 40 – 45)

Matayarisho

……

……

……

……

……

……

……

……

Jibu

……

……

……

……

……

……

……

MATUMIZI YA LUGHA.

(a) Andika sifa za sauti zifuatazo kwa kuzingatia kigezo ulichopewa **(alama 2)**

(i) /a/ (mwinuko wa ulimi)

……

(ii) /i/ (sehemu ya ulimi)

……..……..

(iii) /l/ (namna hewa inavyozuiliwa)

……

(iv) /r/ (ala ya kutamkia)

……

(b) i) silabi ni nini? **(alama 1)**

……

……

ii) Huku ukitoa mifano eleza maana ya silabi funge na silabi wazi. **(alama 2)**

……

……

……

……

(c) Tunga sentensi za aina zifuatazo: **(alama 3)**

i) rai

……

……

ii) masharti

……

……

iii) amrishi

……

……

(d) Bainisha mofimu katika maneno yafuatayo. **(alama 2)**

(i) mti

……..

(ii) darasani

……..

(e) Tunga sentensi yenye vipashio vifuatavyo **(alama 2)**

Nomino ya kitenzijina + kihusishi + nomino ambatani + kitenzi + kiwakilishi

……

……

(f) Tumia kivumishi kiashiria kiradidi kiashiria kutunga sentensi katika udogo **(alama 2)**

……

……

(g) Tunga sentensi **moja** kuonyesha matumizi ya alama za mshazari na ritifaa **(alama 2)**

……

……

(h) Onyesha miundo miwili ya nomino katika ngeli ya (A-WA) **(alama2)**

……

……

……

(i) Kanusha sentensi ifuatayo katika wingi **(alama 2)**

Mtahiniwa angesoma kwa bidii angeenda chuo kikuu.

……

(j)Andika sentensi ifuatayo upya kwa kubadilisha maneno yaliyopigiwa mstari kuwa kinyume.

(alama 2)

Sara <u>alimkashifu</u> Asna kwa kudai kuwa Bunju alikuwa <u>bahili</u>.

……

(k)Andika katika usemi halisi. **(alama 3)**

Majoka alifoka kwamba hakutaka kazi chafu hapo Sagamoyo.

……

……

(m) Andika sentensi ifuatayo upya ukizingatia maagizo. **(alama 2)**

Mtoto alikunywa uji kwa kikombe .

Anza: Uji……

(n)Tunga sentensi moja ukitumia maneno yafuatayo. **(alama 2)**

Vuta/futa

……

……

(o) Changanua kwa kutumia mishale **(alama.4)**

Asiyesikia la mkuu huvunjika guu

……

……

……

……

……

……

……

……

(p)Tunga sentensi kuonyesha matumizi ya **na** kama **(alama 2)**

i) Kiunganishi

……..

ii) kihusishi

……..

(q)Tunga sentensi yenye muundo ufuatao. **(alama 2)**

S-S1[KN(N+RV)+KT(T+N)]+U+ S2[KN(W+V)+KT(T+E)]

……

……

(r)Ainisha yambwa katika sentensi ifuatayo. **(alama 2)**

Mkulima stadi alimnunulia mwanawe wa pili baiskeli.

……

……

(s) Mlolongo ni kwa magari……..ni kwa leso **(alama 1)**

4. **ISIMU JAMII (ALAMA 10)**

(a) Fafanua namna kaida zifuatazo zinavyoathiri matumizi ya lugha katika jamii yako. **(alama 10)**

i) umri

……

……

ii) elimu

……

……

iii) mada

……

……

iv) uhusiano

……

……

v) Hali ya mzungumzaji

……

……

FORM 3 TERM 2 OPENER EXAMS

SERIES 2

MATHEMATICS

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGNATURE……

Instructions

- *Write your name, class and admission number in spaces provided above.*
- *The paper contains **two** sections **A** and **B.***
- *Answer **ALL** questions in section **A** and **any five** from section **B** in the spaces provided below each question.*
- *Marks may be given for correct working even if the answer is wrong.*
- *Non-programmable silent electronic calculator and KNEC mathematical tables may be used, except where stated or otherwise.*

For Examiner's Use Only

SECTION A

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

SECTION B

17	18	19	20	21	22	23	24	**TOTAL**

GRAND TOTAL

SECTION A (50 MARKS)

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

1. Use logarithms to evaluate to 4 significant figures **(3 marks)**

$$\frac{(0.5241)^2 \, x 83.59}{\sqrt[3]{0.23+0.126}}$$

2. Translation T is represented by the column vector $\begin{pmatrix}5\\4\end{pmatrix}$ and another translation U by column vector $\begin{pmatrix}-3\\2\end{pmatrix}$. A point P is mapped to a point Q by T and then Q is mapped to a point R by U. If R has coordinates $(7,-4)$ determine the coordinates of P. **(3 marks)**

3. Solve for x in $\log_3 (4 + 3x) + 3\log_3 3 - 2 = \log_3(x + 6)$ **(3 marks)**

4. A family spent $\frac{2}{5}$ of their income on food, $\frac{1}{3}$ of the remainder on water bill and saved the rest. If sh. 1200 more is spent on food than water bill. Find how much they saved. **(3 marks)**

5. Evaluate without using tables or calculator. $\sqrt[3]{\frac{0.729\times409.6}{0.1728}}$ **(2 marks)**

6. A DVD player whose cash price is sh. 15000 is bought on hire purchase by paying a deposit of sh 3000 and 12 monthly instalments of sh. 1250 each. Calculate the rate of interest per annum.

(3 marks)

7. A hollow cylindrical alloy of length 40mm has a mass of 352g. If its internal radius is 3cm and its 0.01m thick; calculate the density of the metal used to make the alloy in kg/m^3.Take pi as 22/7. **(3 marks)**

8. A salesman dealing in iphones earns a basic salary and commission as follows.

Sales	**Commission**
For sales up to ksh. 150,000	0%
For sales above ksh. 150,000	
- First ksh. 85,000	3%
- Next ksh. 85,000	4%
- Any amount above	5%

(a) In the month of December 2022, the salesman earned a basic salary of ksh. 25,000 and he sold 100 iphones at a discount of 10%. Calculate;

(i)His total sales in the month of December if the iphones were marked at Ksh.5000. **(1 mark)**

(ii) His total earnings that month. **(3 marks)**

9. If $\frac{\sqrt{3}}{2-\sqrt{5}} = a\sqrt{b} + c\sqrt{d}$, find the values of **a, b, c** and **d** where they are rational numbers.

(3 marks)

10. Solve for x in the equation;

$25^x - 5^{2x-1} = 500$ **(3 marks)**

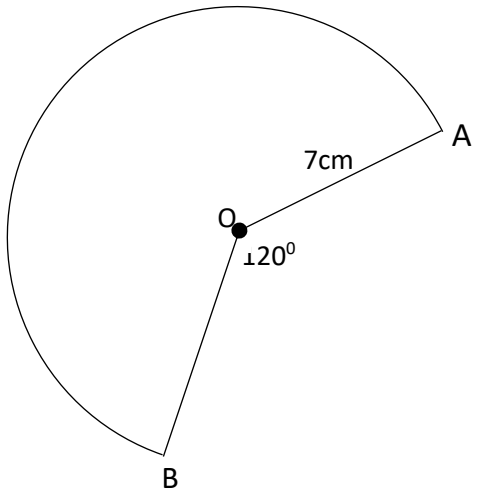
11. Using completing the square method, solve **(3 marks)**

$10x^2 - 11x - 6 = 0$

12. Each side of a regular heptagon measures 11.2cm. What is the percentage error in calculating the heptagon's perimeter? **(3 marks)**

13. A cone is made from a sector whose dimensions are given below. Calculate the volume of the cone. $\left(Take\ \pi = \frac{22}{7}\right)$. OA = OB = 7cm radius of the sector and $< AOB = 120^0$.Give your answer to 3 significant figures.

(4 marks)



14. Given that, $6\cos(x + 15)° - 6\sin(2x - 30)° = 0$, find $\tan(2x - 10°)$ leaving your answer in surd form. **(3 marks)**

15. Solve the inequality $3x - 10 \leq 6x - 26 < 4x - 6$ hence express the solution as a combined inequality. **(2 marks)**

16. Two trains T_1 and T_2 travelling in same direction, on parallel tracks, are just12m apart. Train T_1 is 72m long and travelling at 108km/h. T_2 is *x* mlong and travelling at 72km/h. Find the length of T_2 in metres if they pass each other completely after 16.2s. **(3 marks)**

SECTION B (50 MARKS)

*Answer any **FIVE** questions from this section in the space provided*

17. The frequency distribution table below shows the mass in kilograms (kg) of parcels delivered by a courier company to their office in Lubao.

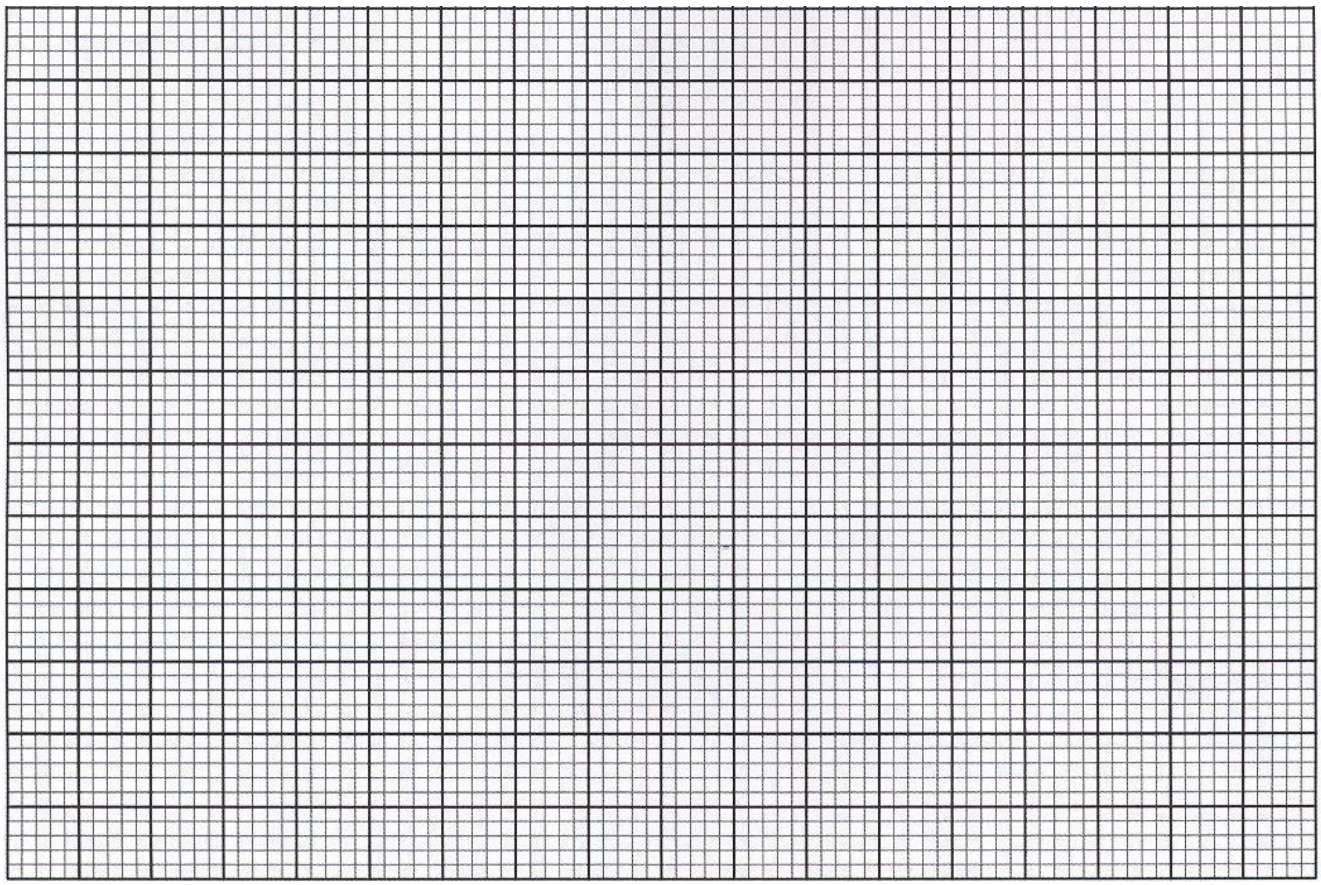
Mass (kg)	50 – 99	100 – 199	200 – 249	250 - 349
Number of parcels	380	230	160	170
Frequency density				

(a) Complete the table above to 1dp. **(2 marks)**

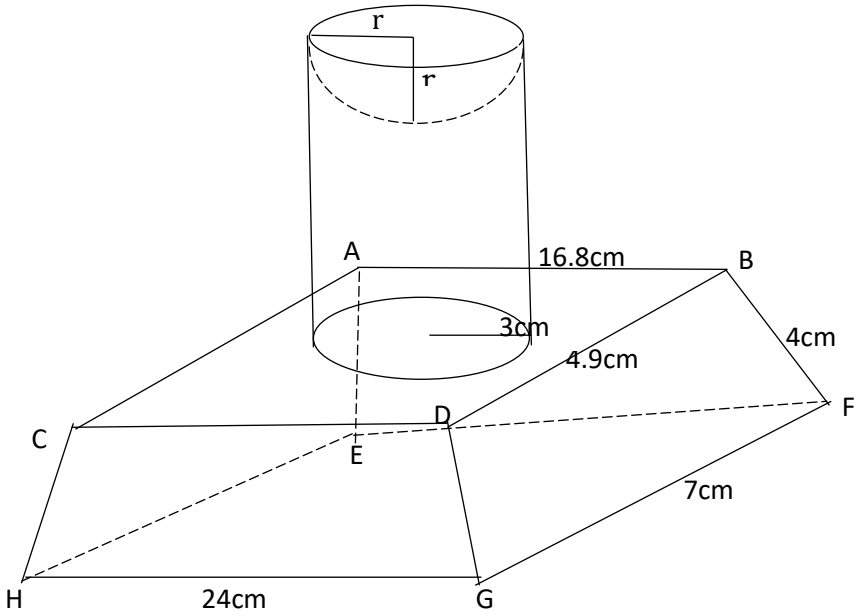
(b) On the grid provided below, draw a histogram to represent the information shown in the table above. **(3 marks)**

(c) Draw a vertical line in the histogram where the median lies. Show your calculations using the graph. **(3 marks)**

(d) Use the histogram to determine the number of parcels with a mass of 300kg or more delivered by the courier company. **(2 marks)**



18. A solid which comprises of a cylindrical solid and a base which is a frustum of a pyramid. The cylindrical part which is open at the top has a portion of the cylinder cut off along a dotted line as shown. Radius of the cylinder is 9cm and height 28cm.



Given that the original pyramid had slant edge of 32.5cm and HG = 24cm, GF = 7cm, BC = 4.9cm and AB = 16.8cm; Find to 1d.p;

(a) the surface are of the solid. **(6 marks)**

(b) the volume of the solid. **(4 marks)**

19. Point B is 110km on a bearing of S60^{0}E from point A. Point C is 90km on a bearing of 065 from B. Point D is 075 from A and 336^0 from C.

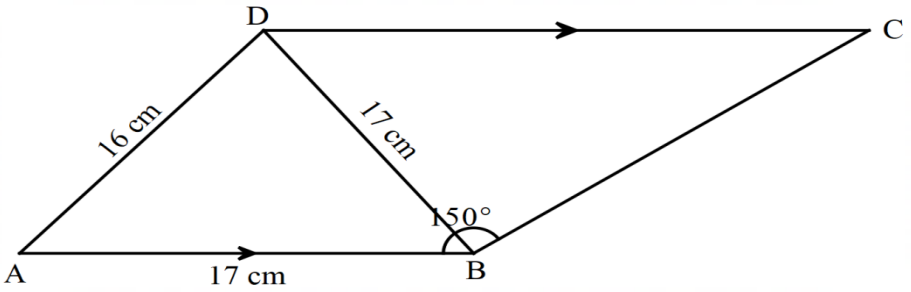
(a) Using a scale of 1cm to represent 20km, draw a diagram to show the relative positions of A, B, C and D. **(5 marks)**

(b) Use your diagram to determine;

(i) the distance and the bearing of B from D. **(2 marks)**

(ii) the distance and compass bearing of A from C. **(3 marks)**

20. In the figure below, ABCD is a quadrilateral in which AB = 17 cm, AD = 16 cm and angle ABC = 150°. ABis parallel to DC and AB = BD.



Calculate correct to 2 decimal places;

(a) The length of BC. **(3 marks)**

(b) The length of AC. **(2 marks)**

(c) The size of angle ACD. **(3 marks)**

(d) Area of the quadrilateral. **(2 marks)**

21. Manu and Harry entered into a business partnership in which they contributed ksh. 120,000 and ksh. 150,000 every year respectively. After one year Cindy joined the business and contributed ksh. 90,000.

(a) Calculate the ratio of their investment after 3 years of business. **(3 marks)**

(b) **It** was agreed that 30% of the profits after 3 years be used to cater for the cost of running the business, while the remaining would be shared proportionally. Calculate each person's share, if the profit made after three years has ksh. 187,000. **(4 marks)**

(c) If each of them invested their shares back in the business, find their new individual investments at the beginning of the fourth year. **(3 marks)**

22. The table below shows the income tax rates in a certain year.

Total income in k£per annum	Rate in shs per pound
1-3900	2
3901-7800	3
7801-11,700	4
11701-15600	5
15601-19500	7
Over 19500	7.5

Mrs. Masau earned a basic salary of ksh18600 per month and allowances amounting to ksh 7800 per month. She claimed a personal relief of ksh 1080 per month.

Calculate:

a) Total taxable income in k£ p.a **(2 marks)**

b) i) the tax payable in ksh per month without **relief** **(4marks)**

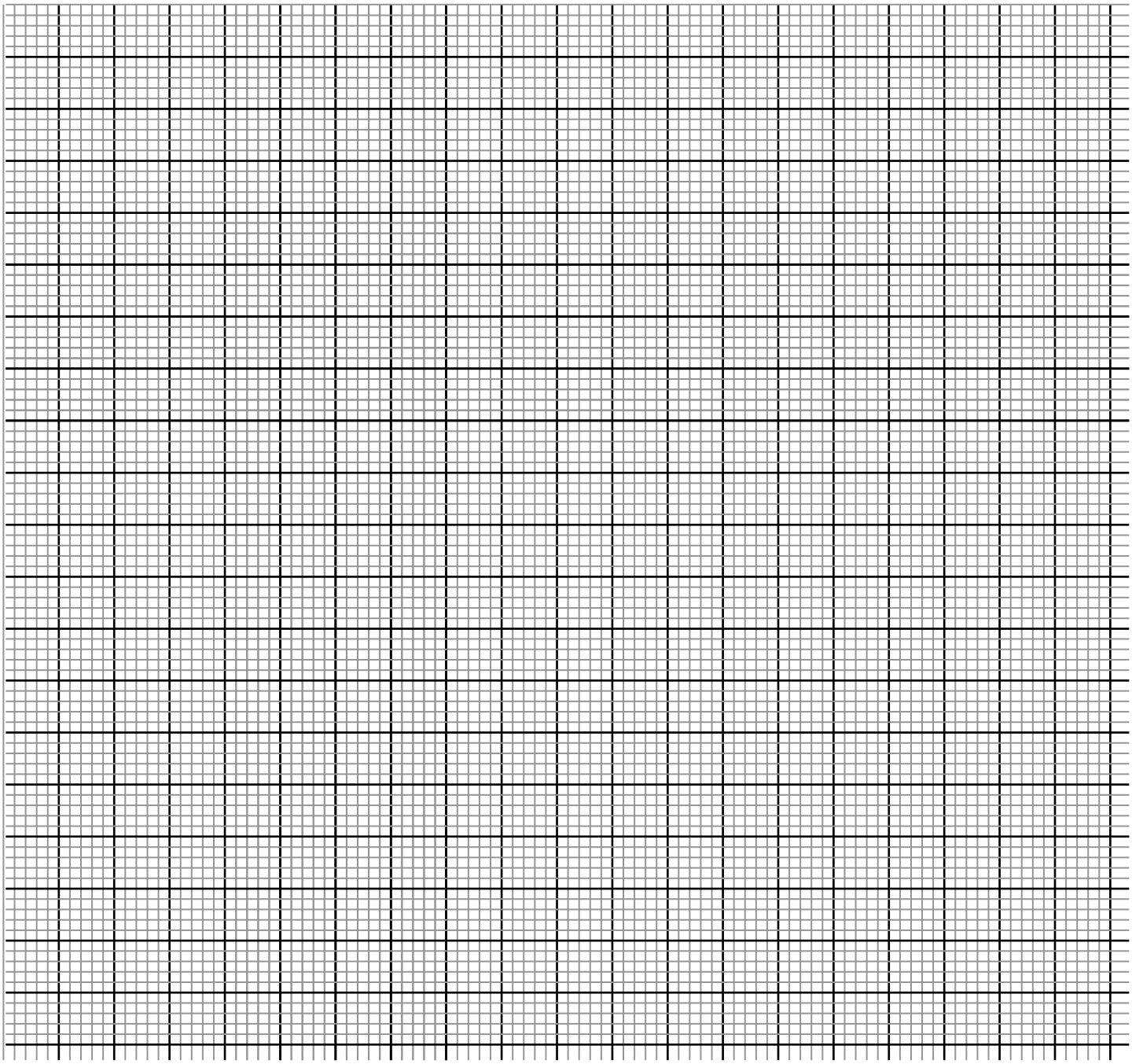
ii)the tax payable in ksh per month after relief **(2marks)**

c) Mrs. Musau's net monthly income **(2marks)**

23)(a) Complete the below for the function $y=2x^2-3x-5$ for $-2 \leq x \leq 3$. **(2 marks)**

X	-2	-1	0	1	2	3
Y						

(b) On the grid provided, draw the graph of $y=2x^2-3x-5$ for $-2 \leq x \leq 3$. **(3 marks)**



(c) Use your graph to find the roots of the equation $2x^2 - 3x - 5 = 0$ **(1 mark)**

(d) (i) On the same axes, draw the graph of $y = -2x - 2$ **(1 mark)**

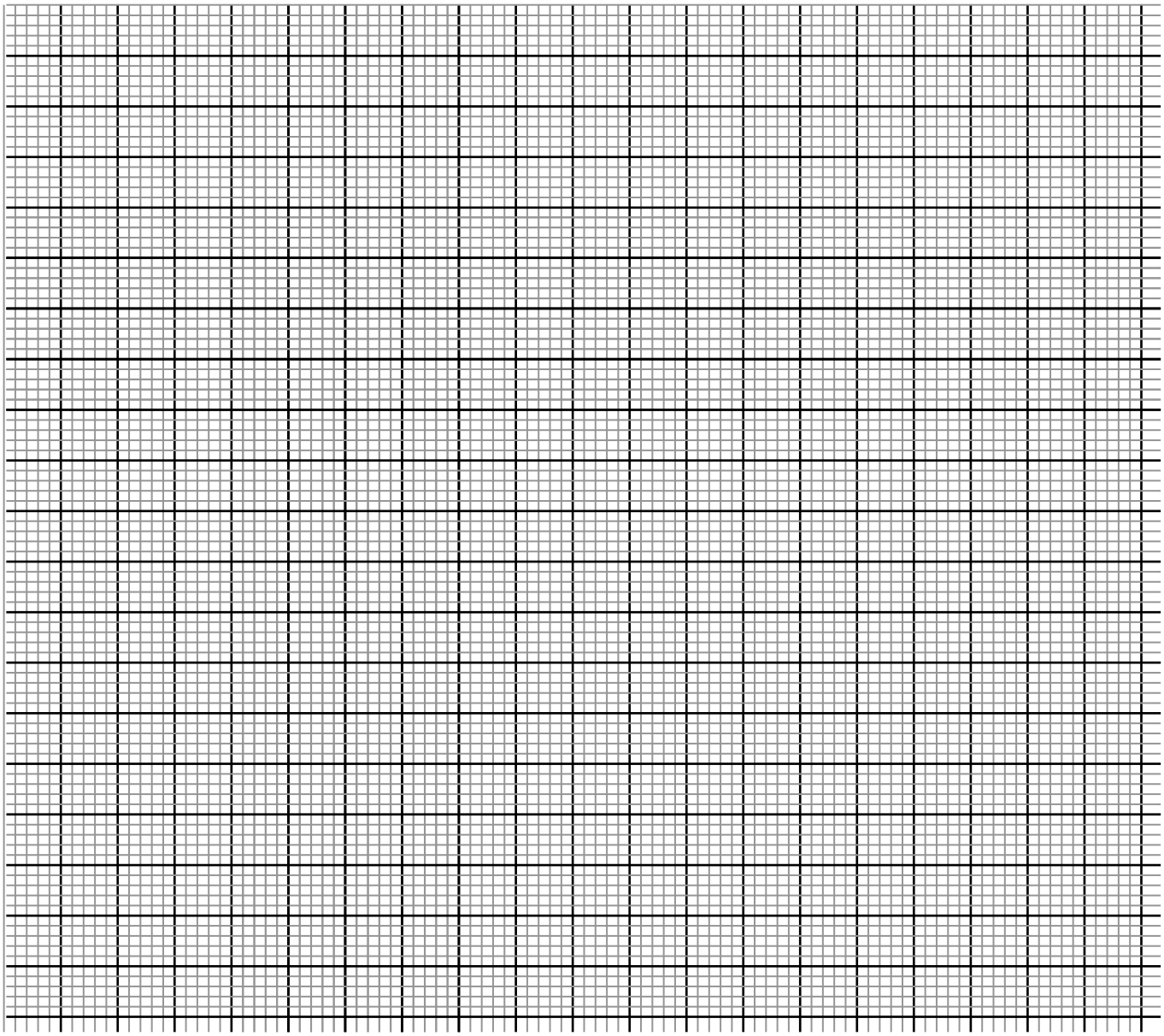
(ii) From your graphs, find the values of x that satisfy the simultaneous equations $y = -2x - 2$ and $y = 2x^2 - 3x - 5$. **(1 mark)**

(iii) Hence write the quadratic equation in the form $ax^2 + bx + c = 0$ satisfied by the values of x where the two graphs intersect, where a, b and c are integers.

(2 marks)

24. (a) On the grid provided, draw a square (s) with vertices (6,3), (7, 0), (9, 4) and (10, 1). Draw also two straight lines AB and AC where the coordinates of A, B and C are(1, − 2). (3, 2) and (0, 1) respectively.

S^1 is the image of S under reflection in the line AB and S^{11} is the image of S^1 under reflection in the line AC. Draw S^1 and S^{11}. **(7 marks)**



(b) Describe the transformation which maps S onto S^{11} if the transformation is;

(i) Translation **(1 mark)**

(ii) Rotation **(2 marks)**

FORM 3 TERM 2 OPENER EXAMS

SERIES 2

COMPUTER STUDIES

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGNATURE……

INSTRUCTION TO CANDIDATES

- Write your name and admission number in the spaces provided above
- This paper consists of **Two** sections **A** and **B**
- Answer **ALL** questions in section **A**
- Answer question16 and any other **THREE** questions from section **B**
- All answers should be written in the spaces provided on the question paper

FOR EXAMINER'S USE ONLY

SECTION	QUSTIONS	CANDIDATE'S SCORE
A	1 -15	
B	16	
	17	
	18	
	19	
	20	
	TOTAL SCORE	

SECTION A: 40 MARKS

Answer all the questions in this Section

1. Give two reasons why portable computers like laptops and tablets are becoming popular in the modern society **(2marks)**

……

……

……

2. Peter a computer student from Upper Hill switched on his computer that is installed with Window 10 during a practical lesson. The Teacher requested him to identify the notification area on the screen and note down the programs displayed. Name three programs that are likely to be listed by Peter **(3mark)**

……

……

……

……

3. Explain how data in a computer system can be secured using **(2marks)**

(i) Password

……

……

(ii) Audit trail

……

……

4. Five students Walter, Faith, Mercy, Diana and Joachim scored the following marks in Mathematics 35, 76, 98, 44, and 54. They were recorded in cell C3 to C7. The teacher wanted to rank them in descending order so as to award them

(a) Write down an appropriate formula that the teacher used **(2marks)**

……

……

(b) Their grades were assigned as follows

80-100 ……. A

60-79 ……B

40-59 ……C

Less Than 40 ……..Fail

Write the formula used to assign the grades above **(2marks)**

……

……

5. State two functions of disk defragmenter **(2marks)**

……

……

6. Describe two ways that can be employed by data entry clerks to minimize on transcription errors **(2marks)**

……

……

……

……

7. Give three ways of disseminating information to the target group after processing **(3marks)**

……

……

……

……

8. Mention three pieces of information that an operating system keep about a file **(3marks)**

……

……

……

……

9. Digitizer is one of the input devices that capture data directly from source. State three areas where Digitizer is extensively used **(3marks)**

……

……

……

10. Mention three parameters used to measure data integrity **(3marks)**

……

……

……

11. State three circumstances that can necessitate a warm boot of a computer **(3marks)**

……

……

……

……

12. State circumstances under which the following types of errors occur **(3marks)**

(a) Truncation error

……

……

(b) Overflow error

……

……

(c) Logical error

……

……

13. Mention two factors that affects the cost a computer **(2marks)**

……

……

14. Describe three reasons to justify why Internet is regarded as an agent of moral degradation **(3marks)**

……

……

……

……

……

……

15. Nabil a computer student noticed that every time he switched on his computer during practical lessons the computer fails to boot instead displays an error message "**Invalid System Disk"**. Identify two ways of resolving of this error **(2marks)**

……

……

……

……

SECTION B: 60 MARKS

Answer question number 16 any other three questions in this section

16.

(i) Perform the following number system conversion

(a) $342\frac{6}{16}$ base 10 to Binary **(2marks)**

(b) 1FAH to Decimal **(2marks)**

(c) FBH to Octal **(2marks)**

(ii) Using 8-bit notation , perform the twos complement on 25_{10} -15_{10}, leaving your answer in decimal number system **(4marks)**

(iii) Perform binary operation in the arithmetic expression below **(2marks)**

1010.11_2+111.10_2-101.11_2

(iv) Given that 1011_2 is a negative number workout its three possible decimal equivalents **(3marks)**

17.

(i) Maranda Modern Bookshop sells computer accessories and need orders for supplies. A spreadsheet application is used to represent the orders as shown below. Use it to answer the questions that follow

	A	B	C	D
1	**Item**	**Price Per Item**	**Number Ordered**	**Cost (Kshs)**
2	Mouse	450	10	
3	Keyboard	300	5	
4	Flash Disk	600	4	
5	TP link	1000	4	

(a) Use absolute reference , write a function that can be used to calculate the total amount to be paid for Keyboard **(2marks)**

(b) Identify data types in cell C4 and D3 **(2marks)**

(c) Write a function used to display total number of items whose Number Ordered is 4 **(2marks)**

(ii) Hassan realized that an image he was working with on with Word processing was too big to fit on portrait page. Name two features provided by Word processor that will help Hassan to fit the image on the page **(2marks)**

(iii) State three advantages of using templates when preparing documents in Ms-Word **(3marks)**

(iv) Mention four sources graphics in Ms-Word **(4marks)**

18.

(i) What is a dynaset **(2marks)**

(ii) State the difference between bound and unbound control with respect to database **(2marks)**

(iii) Use an illustration to explain the following database models

(a) Relational **(2marks)**

(b) Flat file **(2marks)**

(iv) The table below is an extract from a database use it to answer the questions that follows

Product Code	Product Name	Unit cost	Quantity	Total
01001101	Maize	2000	10	20000
01223030	Millet	1000	20	20000
10239345	Wallet	100	10	1000
19019001	Sweet	1000	5	5000

(a) Give the most appropriate data type for Product code and Total **(2marks)**

(b) Assume that the table above represent the result of a query. State the expression that should be entered at the builder to calculate the total **(2marks)**

(v) State three functions of a primary key **(3marks)**

19.

(a) Define the following terms

(i) Downloading **(2marks)**

(ii) Hyperlink **(2marks)**

(b) Use an example to describe the main parts of the URL **(4marks)**

(c) Describe four internet services that support communication **(4marks)**

(d) Give three benefits of cloud computing **(3marks)**

20.

(i) Describe how business enterprises in modern society use computers or ICT **(4marks)**

(ii) State four safety precaution that a computer user must observe in the computer laboratory to protect him or her from eye strain **(4marks**

(iii) Describe the following features with regards to Desktop publishing **(3marks)**

(a) Stroke

(b) Fill

(c) Text Wrap

(iv) Explain how layering is used in Desktop publishing software **(2marks)**

(v) Describe any two check spelling options supported in DTP software like Ms-publisher **(2marks)**

FORM 3 TERM 2 OPENER EXAMS

SERIES 2

HOME SCIENCE

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGNATURE……

Instructions to students

- *Write your name, class, and admission number in the spaces provided.*
- *Sign and write the date of the exam in the spaces provided.*
- *The paper consists of three sections:* ***A, B*** *and* ***C.*** *Answer all the questions in section A and B and any two questions in section C. Answers to all questions must be in the spaces provided.*

For examiner's use only

Section	Question	Maximum Score	Student's Score
A	**1-17**	**40**	
B	**18**	**20**	
C		**20**	
		20	
Total Score		**100**	

SECTION A (40 marks)

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

1. List down **four** equipment for pressing work during garment construction**.** **(2 mks)**

……

……

……

……

2. State **two** immunizable early childhood diseases caused by viruses**.** **(2 mks)**

……

……

3. Give the use of the following items. **(3 mks)**

a) Bodkin

……

……

b) Tracing wheel

……

……

c) Stiletto

……

……

4. Suggest **four** ways a mother can use to capture a child's appetite**.** **(2 mks)**

……

……

……

……

……

5. Mention **two** reasons why French seams are suitable for making undergarments. **(2 mks)**

……

……

6. Suggest **two** positive effects an advert can have on a consumer**.** **(2 mks)**

……

……

7. Outline **three** considerations when planning and preparing meals for a person with a throat infection. **(3 mks)**

……

……

……

8. Suggest **four** reasons why the upper thread of the machine would keep breaking during machining. **(2 mks)**

……

……

……

……

9. Give **three** factors to consider when constructing a sewing room for a school. **(3 mks)**

……

……

……

10. State **two** disadvantages of owning a maisonette. **(2 mks)**

……

……

11. Highlight **two** discomforts experienced due to decayed teeth**.** **(3 mks)**

……

……

12. Give **six** items that make up the baby layette **(3 mks)**

……

……

……

13. State **two** reasons why linen fabrics are popular for making table linen in Kenyan hotels.

(2 mks)

……

……

14. How would you identify silk using the burning test**?** **(2 mks)**

……

……

15. Mention **three** rules to observe when deep frying fish fillet. **(3 mks)**

……

……

……

16. State **three** factors to observe when sorting out clothes before carrying out the family wash.

(3 mks)

……

……

……

17. State **two** signs and symptoms in a person suffering from anorexia nervosa**.** **(3 mks)**

……

……

……

SECTION B (20 marks)**(Compulsory)**

Answer this question in the spaces provided.

18. Your mother is away for the weekend and has asked you to take care of the laundry.

a) Outline how to launder your fast coloured synthetic dress with a grease stain. **(10 mks)**

b) Giving reasons explain how to finish your brother's previously washed white cotton pillow case ready for use**.** **(10 mks)**

SECTION C (40 marks)

*Answer any **TWO** from this section questions in the spaces provided.*

19. a) State **five** activities an expectant mother should be involved in at the antenatal clinic. **5 mks)**

b) Define the following terms: **(6 mks)**

i. Maternal child health care

ii. Haemorrhoids

iii. Passive immunity

c) Explains **three** ways expectant mothers benefit from free maternal care offered by the government. **(6 mks)**

d) Mention **three** circumstances in which breastfeeding babies may develop high fever. **(3 mks)**

20. a) Draw the symbol showing the following information. **(4 mks)**

i. Do not bleach

ii. Drip dry

iii. Place on fold

iv. Straight grain line

b) Explain **four** points you would consider when choosing toys for a 1½ yr old. **(8 mks)**

c) Give **four** good grooming habits that help in the prevention of dandruff. **(4 mks)**

d) Explain **four** points to consider when selecting a drying rack. **(4 mks)**

21. a) Mention **five** ways breast milk production can be improved. (**5 mks)**

b) Give **five** reasons a family needs to be prepared for the arrival of a new born baby. **(5 mks)**

c) Explain **three** advantages of stewing as a method of cooking. **(6 mks)**

d) Suggest **four** ways to ensure fresh milk remains safe for consumption at home. **(4 mks)**

This is the last printed page

FOR MARKING SCHEMES CONTACT *0746 222 000 / 0742 999 000*

FORM 3 TERM 2 OPENER EXAMS

SERIES 2

DRAWING AND DESIGN

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGNATURE……

FOR EXAMINERS USE ONLY

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

INSTRUCTIONS TO CANDIDATES.

You should have the following for this examination:

- Drawing instruments
- 3 sheet of drawing paper size A3

This paper consists of TWO sections A and B.

Answer ALL the questions in section A and B.

Questions in section A must be answered in A_4 drawing papers provided.

Questions in sections B and C should be answered on the A3 drawing papers provided.

All dimensions are in millimeters unless otherwise stated.

Candidates may be penalized for not following the instructions given in this paper.

SECTION A (50 marks)

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

1. (a) sketch each of the following conventions (2marks)

i. Hidden details

ii. Folding lines

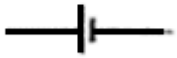
iii. Centre line

iv. Cutting plane.

(b) State the meaning of each of the following conventions.((2 marks)

(i) 

(ii) 

(iii) 

(iv) 

2. With the aid of sketches, describe the use and construction of a Tee-square indicating the materials used. (3 marks)

Uses

Construction

3. (a). Give the following information regarding parastatal organizations in Kenya with respect to: (3 marks)

i. Ownership

ii. Management

iii. Services

4. Describe each of the following manufactured boards: (3 marks)

I. Plywood

II. Chip Board

III. Block Board

5. Fig **1** shows the front elevation of a tilted right hexagonal pyramid of side 30mm
(6 marks)

(a) Copy the given front elevation

(b) Draw the plan

(c) Draw the left end elevation of the pyramid

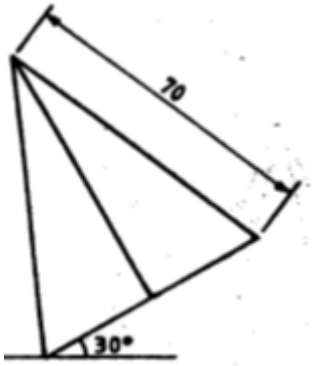


FIG 1

6. Draw full size, a pentagon **ABCDE** having the following dimensions: sides **AB**= 70mm, **BC**= 60mm, **CD**=65mm, **EA**=45mm, **diagonals AC**=100mm **AD**=90mm and Angle **AED**=90^0.
(7 marks)

7. Exploded Pictorial drawing of a dovetail joint is shown in **Fig 2**, assemble the parts and draw the following views. (6 marks)

a. Front Elevation in the direction of arrow A

b. End Elevation in the direction of arrow B

c. The Plan

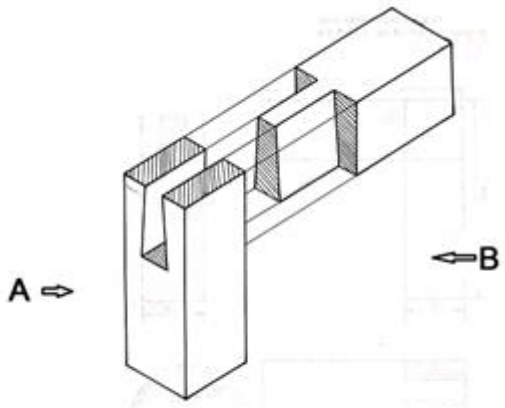


FIG 2

8. Fig 3. Shows three views of a block drawn in first angle projection. Make a sketch of the block in two point perspective with Y as the lowest point (7 marks)

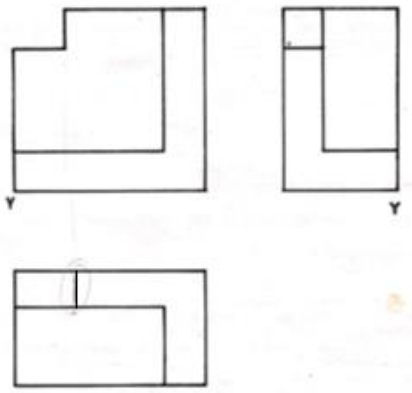


FIG 3

9. Draw a square of equal area to the triangle XYZ in figure 4. (5 marks)

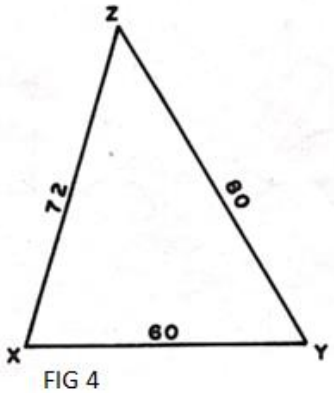


FIG 4

10. Two views of a machine component are shown 5 draw the object in oblique cabinet projection .(6marks)

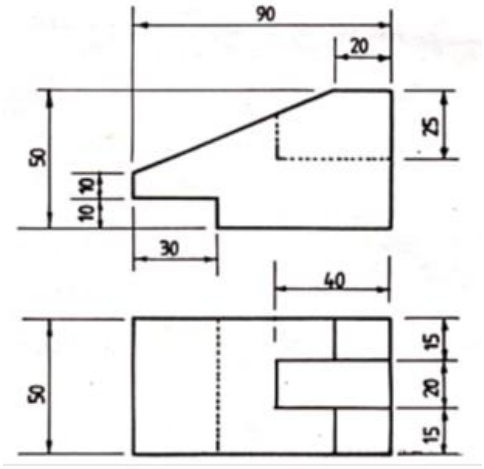


FIG 5

Section B (20 marks)

This question is compulsory and students are advised to spend not more than one hour

11. **Figure 6** shows pulley support bracket drawn in first angle projection. Assemble the parts and draw full size the following views in first angle projection:

(a) Sectional front elevation along the cutting plane x-x

(b) Plan in first angle projection.

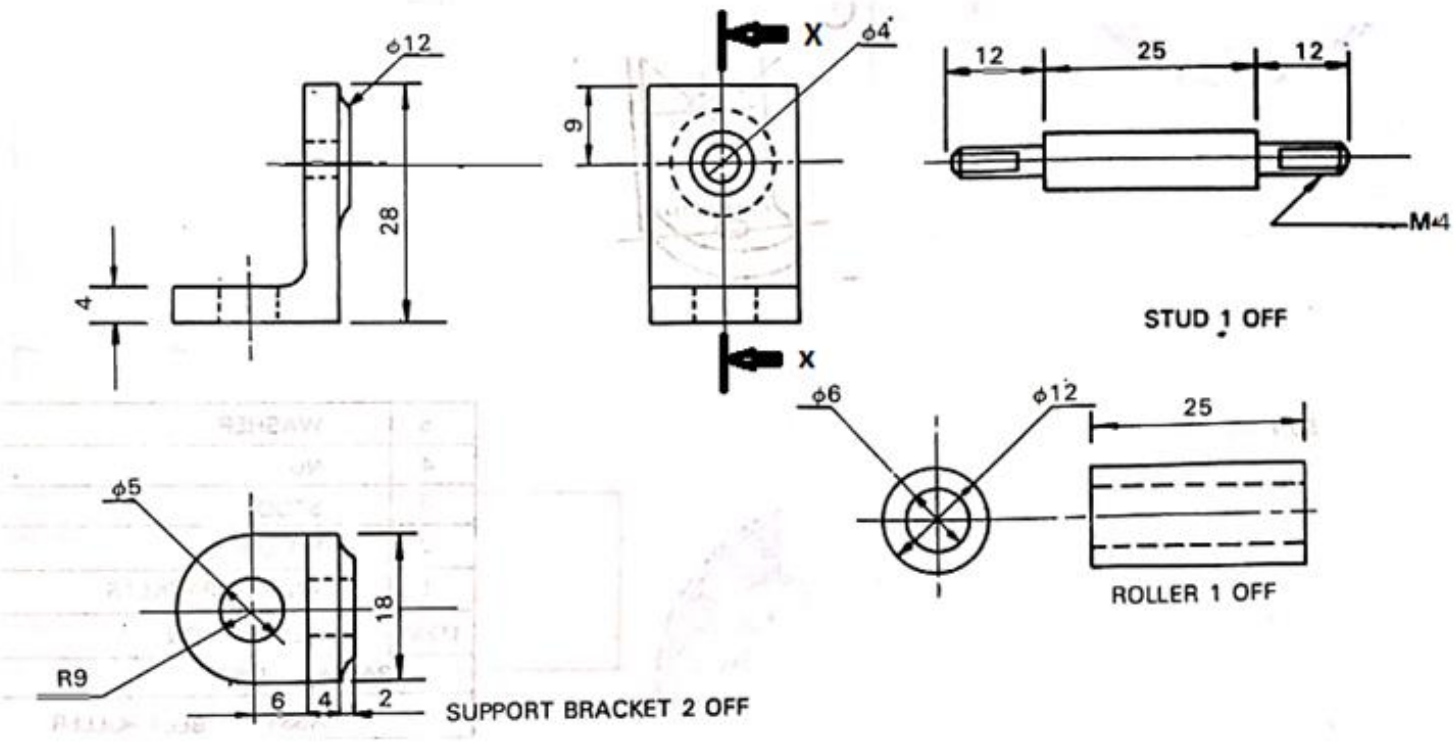


FIG 6

Section C (30 marks)

Answer Any Two questions in this section in the A3 provided

12. Figure 7 shows two views of a block. make full size isometric drawing of the block taking corner "A "as the lowest point (15 marks)

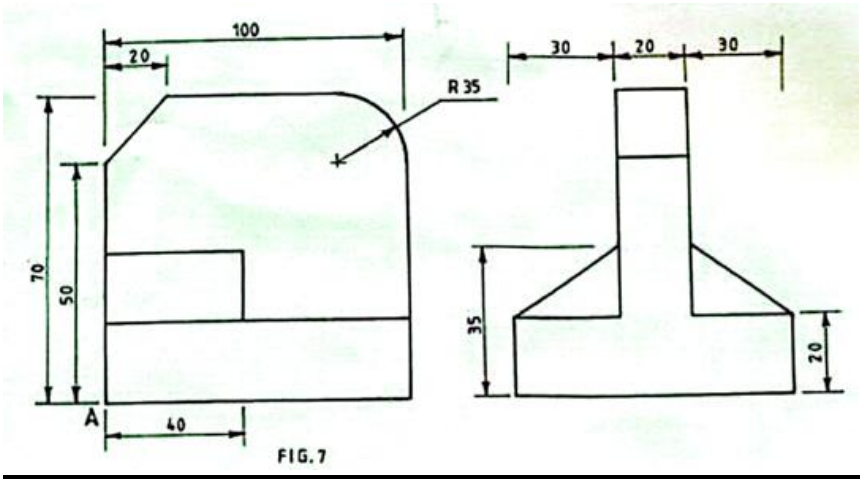


FIG. 7

13. Figure 8 the front elevation of a truncated pyramid along cutting plane BBThe slider A is constrained to move along groove "XY" tilted at 60^0. While the crank OB rotates about center "O". Plot the locus of "D" when OB makes one complete revolution.

(15 marks)

AB=90

OB=25

AD=OB

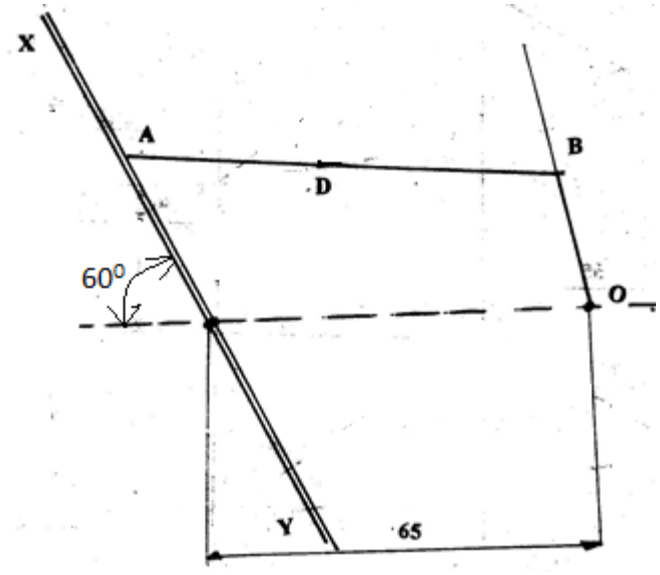


FIG 8

14. Figure 9 below shows a block drawn in isometric. (15 marks)

Draw full size in first angle the following views of the block.

(a) Sectional Front elevation **A-A**

(b) End elevation

(c) The plan

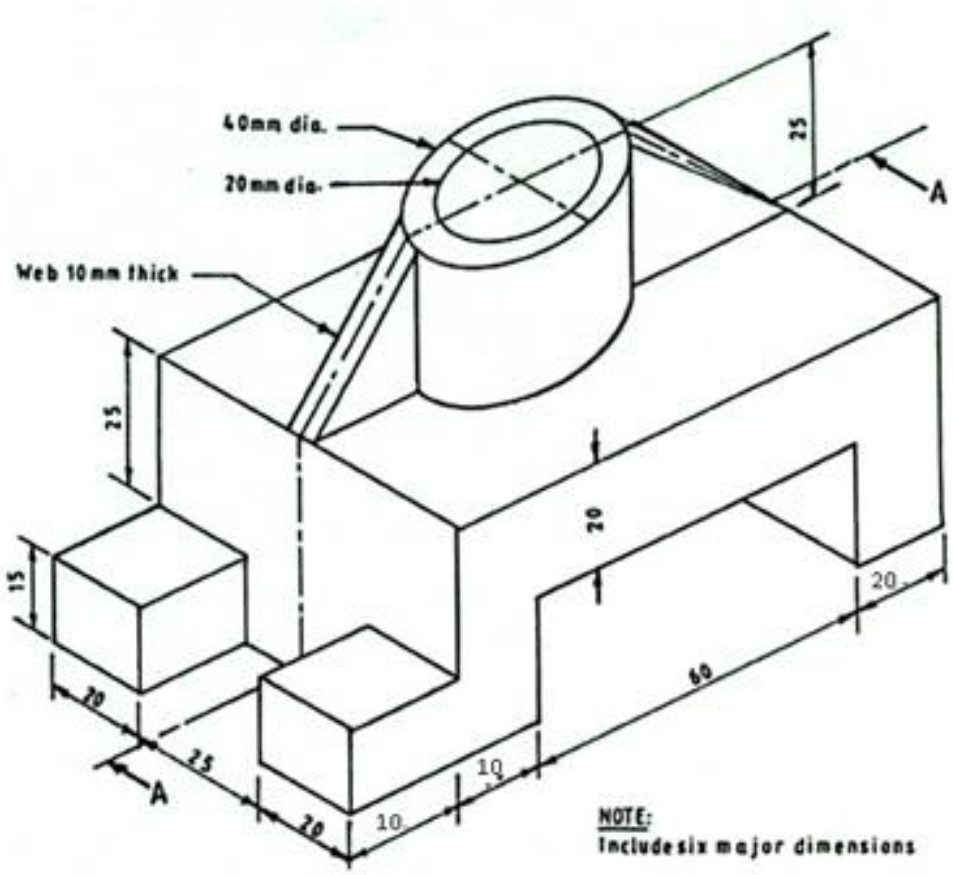


FIG 9

FORM 3 TERM 2 OPENER EXAMS

SERIES 2

ISLAMIC RELIGIOUS EDUCATION

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGNATURE……

INSTRUCTIONS:

1. This paper contains six (5) questions.

*2. Answer **ALL** the questions*

3. Write your answers in the answer sheet provided.

4. All answers must be in English.

QUESTIONS

1. a) Describe seven reasons for revelation of the holy Qur'an. **(7 marks)**

b) Mention six importance of the holy Qur'an to Muslims. **(6 marks)**

c) State seven teachings of suratul Nur **(7 marks)**

2. a) Discuss the reasons why it became necessary to collect and compile Hadith. **(8 marks)**

b) Differentiate between hadith Qudsi and Qur'an. **(8 marks)**

c) Describe the qualities of prophets of Allah **(4 marks)**

3. a) Explain the significance of believing in Qiyamah. **(5 marks)**

b) Identify situations when it is compulsory to perform *ghusl* (ritual bath). **(7 marks**

c) State the conditions one must fulfil in order to perform Hajj. **(8 marks)**

4. a) State five benefits of exercising self-control. **(5 marks)**

b) Discuss the measures Islam has put in place to curb zinaa. **(10 marks)**

c) state the conditions of Nikah. **(5 marks)**

5. a) Explain why *Hijra* was a turning point in the history of Islam. **(7 marks)**

b) Explain the factors that facilitated the spread of Islam in Kenya. **(6 marks)**

c) Discuss the achievements of Sheikh Hassan Al-Banna. **(7 marks)**

FOR MARKING SCHEMES CONTACT *0746 222 000 / 0742 999 000*

FORM 3 TERM 2 OPENER EXAMS

SERIES 2

FRENCH

TIME: 2½ HOURS

NAME…… ADM NO; ……

CLASS…… DATE……

SIGNATURE……

INSTRUCTIONS TO CANDIDATES

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

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

c) *This paper has **three** sections.*

d) *In section **III**, choose **one** composition from question 3.*

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

f) ***Candidates should answer the questions in French**.*

For Examiner's Use Only

Section	Maximum Score	Candidate's Score
I	15	
II	40	
III	15	
Total Score	70	

SECTION 1 :

1. Reading compréhension passages.

PASSAGE 1

Pour aller au travail, Marc porte une veste, un pantalon, une chemise et une belle cravate rouge. Ses amis trouvent qu'il est très élégant avec son bracelet-montre doré et ses chaussures noires.

Quand il doit rencontrer un client important, Marc n'hésite pas à s'habiller sobrement. Il met son plus beau costume et son chapeau. Il se sent plus à l'aise avec une tenue vestimentaire classique.

Sa secrétaire Lili porte des lunettes. Elle adore mettre sa jupe à fleurs et un chemisier assorti lorsqu'il fait beau. En hiver, elle ne sort jamais sans son parapluie et son écharpe. Elle préfère aussi mettre un pull, des chaussettes en laine, des bottes et ses gants pour ne pas avoir froid aux doigts. Parfois, elle exhibe un joli collier en perles autour du cou qui lui donne une allure très attrayante.

En été, lorsqu'il fait chaud, Lili et Marc vont à plage pendant le weekend. Ils mettent des lunettes de soleil, une belle casquette, un T-shirt, des shorts et des sandales. Ils aiment passer des journées ensemble au bord de la mer.

Questions

1. Est – ce que Marc est au chômage ? Justifiez vitre réponse. .

……. …. (1 pt).

2. Comment Lili s'habille –t-elle quand il fait beau ?

…… (1 pt)

3. Citez six habits mentionnés dans le texte. (3 pts)

…….. ……

…….. ……

…… ……

4. Quel temps fait –il en été ? (1 pt)

……

5. Mettez cette phrase à l'affirmative : (1 pt)

-Elle ne dort jamais sans son parapluie.

-……

PASSAGE 2

Chère Julie,

Je suis actuellement en vacances en Alsace. Il fait très froid ici. Hier il a même neigé. Aujourd'hui, avec ma famille (mes parents et mon frère) nous sommes allés au marché de Noël, c'était vraiment

incroyable ! Ma mère m'a exceptionnellement laissé boire du vin chaud même si je n'ai normalement pas le droit.

Dans ma famille, on adore goûter les spécialités locales alors on a tout essayé, de la choucroute à la tarte flambée en passant par les kouglofs.

Félix n'arrête pas de manger des bredele (des biscuits spéciaux d'ici). C'est vrai qu'ils sont très bons mais j'ai peur qu'il tombe malade. Demain, on prévoit de faire une promenade dans le quartier de la Petite France, il paraît que c'est le plus beau de Strasbourg !

Je t'aurais bien envoyé une photo mais nous n'avons pas d'appareil. Mes parents ont insisté pour qu'on prenne nos chaussures de marche, ils veulent qu'on aille faire des randonnées dans les montagnes. J'espère que tu vas bien et que tes vacances au ski se passent bien aussi. On se reverra à la rentrée, j'ai hâte de te raconter le reste de mon voyage.

À très vite,

Marianne.

Questions

1……écrit la lettre à…… (1 pt)

2. Où sont-ils allés aujourd'hui ?

-…… (0.5pts)

-Comment était l'expérience là-bas ?..... (0.5pts)

3. Pourquoi est-ce qu'elle ne peut pas lui envoyer une photo ?

-…… (1 pt)

4. Qu'est-ce que cette famille prévoit de faire le jour suivant?

-…… (1 pt)

5. Complétez comme dans l'exemple : (3 pts)

Le nom	Verbe infinitif
L' exemple :……la neige……	Neiger
i)……..	Goûter
Ii) promenade	…….
iii) voyager	…….

SECTION II

GRAMMAR

2. A. Beginning as indicated rewrite the sentences below making all the necessary changes.

Replace the underlined words with the appropriate pronouns. (10 pts)

i)Martin, parle –t-il <u>à son frère?</u>

-Oui bien sûr,……

ii) Est-ce que les filles aiment <u>leur grand-mère ?</u>

-Oui, elles……

iii) Ces enfants nagent <u>dans la rivière ?</u>

-Non, ils ……

i**v**) Julien, est – ce que tu lis <u>le journal quotidien, 'Le Parisien' ?</u>

-Non, je ne……pas du tout.

v) Les élèves, téléphonent-ils <u>à leurs parents</u> tous les jours ?

-Mais non, ils ne ……tous les jours.

vi) Est – ce que les enfants de Martin adorent <u>leur bonne ?</u>

-Oui, ils……beaucoup.

vii) Vous voulez <u>de la salade</u> madame ?

-Ah oui, je…….

viii) Tu viens <u>du marché</u>, Éric ?

-Non, je ……pas, je viens de l ' église.

ix) Est- ce que ces élèves pensent <u>à leurs vacances ?</u>

-Oui, ils ……tous le temps.

x)Ces enfants n'aiment pas <u>leurs cousins ?</u>

-Si, ils ……

<u>B. Answer the following questions in the negative form like in the example. (5 pts)</u>

Exemple : Vous dormez tôt tous les jours ?

-Non, ……

Non, je ne dors jamais tôt.

i) Marie, fais-tu quelque chose le soir ?

-Non, je……

Ii) Ils sont déjà arrivés ?

-Non, ……

Iii) Quelqu'un habite ici ?

-Non, ……

Iv) Est – ce que l'enfant dort encore ?

-Non, il ……

V) Vous allez souvent à la piscine ?

-Non, ……

vi) Marianne, a-t-elle des cahiers de révision ?

-Malheureusement, elle n'……

C. Rewrite the following in the reported speech. (5 pts)

I) Mamadou dit, < Je suis si fatigué.>

-Mamadou dit……

Ii) Dorothée et Pauline affirment :<Nous allons bien réviser pour réussir dans l'examen prochain.>

-Qu'est – ce qu'elles affirment ?

-Elles affirment……

iii) <Où travailles-tu ?

-Mon amie me demande …….

iv) Maman ordonne aux enfants, <Ne regardez pas la télévision le matin ! >

-Qu'est-ce que maman ordonne aux enfants ?

-Elle leur ordonne……

v) Combien d'étudiants y a-t-il dans cette classe ?

-Le professeur demande au chef de la Classe……

D. Use the correct possessive pronoun to complete these statements by replacing words in italics like in the example. (3 pts)

Exemple : Prête – moi ton stylo. J'ai perdu ***mon stylo***.

- Prête – moi ton stylo. J'ai perdu **le mien.**

i)Vous pouvez garer ta voiture dehors le bureau. ***Ma voiture*** est juste à côté.

- …….. est juste à côté.

ii) -Chaque matin nous prenons le petit-déjeuner dans la cuisine.

-Où prends-tu…… (***ton petit-déjeuner***) ?

iii)Je vous présente mon mari. Quand est – ce que je rencontre

…… (***votre mari*** ?)

E Rewrite each of the following sentences in:

a) Passé composé. (**p.c.)** b) **L ' imparfait. (Imp.) (10 pts)**

I) Est – ce que Marc lit ce livre ?

a) p.c ……

b) imp……

ii) Léa et Sarah nagent dans la piscine.

- a) p.c ……

- b) imp……

Iii)Elle fait le ménage.

- a) p.c ……

- b) imp……

Iv) Les filles descendent les escaliers.

- a) p.c ……

- b) imp……

v) Mon frère commence l ' examen de la fin du trimestre.

a) p.c. ……

b) imp……

F. Match the items in Column A with the correct ones in Column B. (3 pts)

Column A	Column B
a) Maman, je veux aller en boite ce soir.	i) Je la trouve ennuyeuse.
b) Tu n'as pas encore acheté les billets ?	ii) On y va à pied.
c) Que fais – tu ?	iii) C'est la première fois je les vois.
d) Tu connais les nouveaux voisins ?r	Iv) Tu es encore très jeune.
e) Aimes – tu cette chanson de Michael Jackson ?	v. Si.
f) La cathédrale est juste à côté.	vi. J'achète les billets.
	vii) Rien de spécial.

G. What would you say for each of the situations below. (4 pts)

i) Que dites–vous à votre camarade qui va passer un examen?

……

ii) Que dites – vous à votre sœur qui vient d'avoir un bébé?

……

iii) Votre ami(e) arrive chez vous pour la première fois. Vous dites?

……

iv) Un(e) ami(e)a raté un vol. Vous lui dites?

……

SECTION III

3. CREATIVE WRITING (15 Marks)

In **150-180** words, write in French, one composition in the spaces provided. Indicate clearly whether your choice is **(3 a) or (3 b).**

Either:

a) Ce soir-là, à ma grande surprise, quand je suis arrivé(e) chez-moi, la porte était fermée

…….

OR

b) Vous êtes parti(e) faire un pique-nique avec des camarades. Malheureusement, le bus vous utilisiez est tombé en panne .Racontez la suite