KCSE 2024 ACHIEVERS PREDICTION

ALL SUBJECTS

First Series of Exclusive Set of Probable Questions Predicted in the Final Examinations for our KCSE Candidates Scheduled for November 2024.

A Reflection of what is expected in KCSE 2024 Examinations.

SUBJECTS COMPILED;

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

ACHIEVERS SERIES

For Marking Schemes

Mr Isaboke 0746-222-000 / 0742-999-000

A REFLECTION OF KCSE

For Marking Schemes - Contact 0746 222 000 / 0742 999 000

KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

PHYSICS

232/1

PAPER 1 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

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 and Mathematical tables may be used.*
- *All numerical answers **should be expressed** in the **decimal** notations.*

FOR EXAMINER USE ONLY

SECTION	QUESTION	MAX MARKS	SCORE
A	1 – 14	25	
B	15	12	
	16	10	
	17	09	
	18	14	
	19	10	
TOTAL		80	

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SECTION A (25 MARKS)

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

1. Figure 1. shows a micrometer screw gauge being used to measure the diameter of a ball bearing.

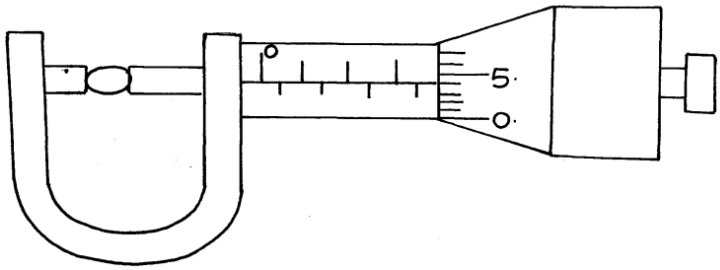


Fig.1

If the instrument has a negative zero error of 0.01mm, record the actual diameter of the ball bearing. **(1 mark)**

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2. Figure 2. shows drops of mercury and water on a glass surface,

Fig. 2



Explain the difference in the shapes of the drops. **(2 marks)**

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3. State why diffusion is faster in gases than in liquids. **(1 mark)**

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4. When a Bunsen burner is lit above a wire gauze, it is observed that the flame initially burns above the gauze shown in figure 3 (i). After sometime, the flame burns below as well as above the gauze as shown in figure 3(ii).



Explain the observation. **(2 marks)**

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5. In an experiment to demonstrate Brownian motion, smoke was placed in a smoke cell and observed using a microscope. The smoke particles were seen moving randomly in the cell. Explain the observation. **(1 mark)**

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6. A paper vane in a horizontal axis was placed above a Bunsen burner as shown in figure 4. When the burner was lit, the paper vane begun to rotate. Explain the observation. **(2 marks)**



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7. An electric kettle with shiny outer surface is more efficient than one with a dull outer surface, give a reason for this. **(1 mark)**

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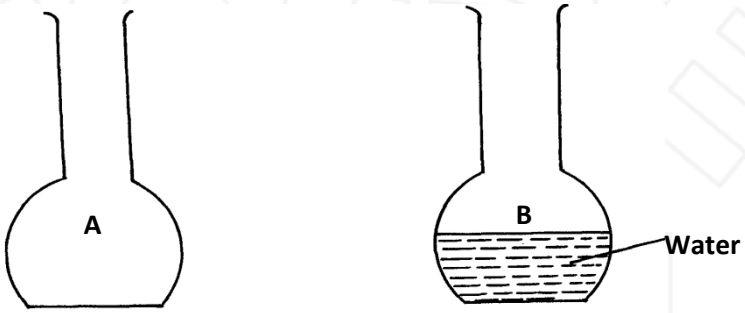
8. What is the reason why trailers carrying heavy loads have many wheels. **(1mark)**

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9. Two flasks **A** and **B** were placed on a horizontal surface as shown in figure 5.

Fig. 5



State and explain which flask is more stable. **(2 marks)**

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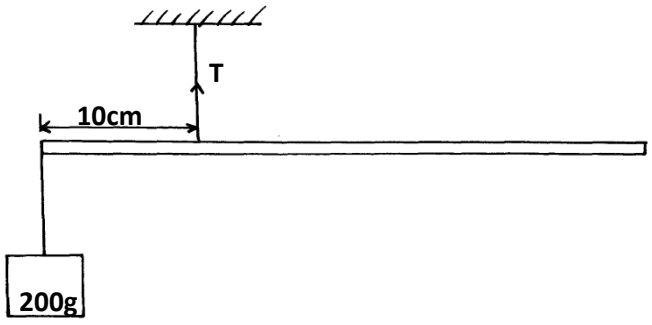
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10. Figure. 6 below shows a metre rule balancing when a mass of 200g is hung at one end.

Determine the tension, T in the string. **(3 marks)**

Fig. 6



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11. State Newton's second law of motion. **(1 mark)**

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12. A pipe of diameter 12mm is connected to another of diameter18mm. if water flows in the wider pipe at the speed of 2m/s, determine the speed of water in the narrow pipe. **(3 marks)**

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13. On the axes provided in the figure 7, sketch the graph showing variation in pressure with volume of a fixed mass of gas that obeys Boyle's law. **(1 mark)**

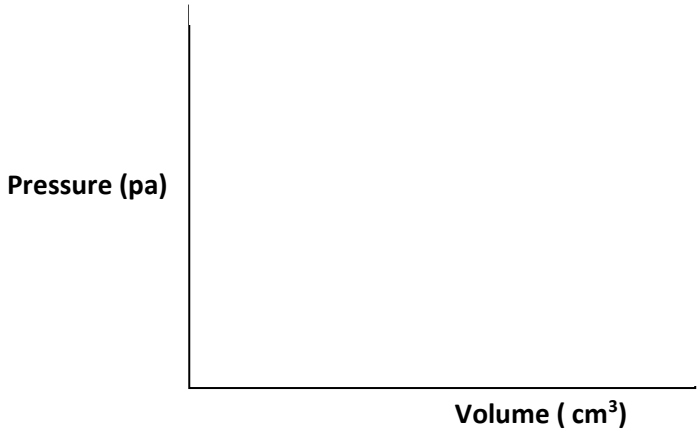


Fig. 7

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14. An oil drop has a volume of $0.01mm^3$. When it is placed on the surface of water, it spreads out to form a circular patch of area $500cm^2$.

(i) Calculate the size of the molecule of the oil. **(3 marks)**

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(ii) State **one** assumption made in (i) above. **(1 mark)**

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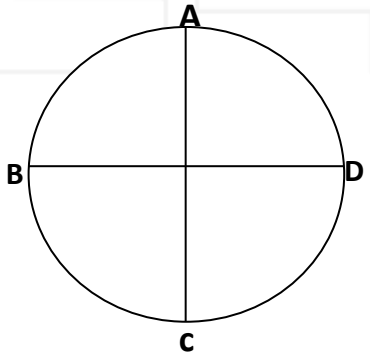
SECTION B (55 marks)

15. (a) Define angular velocity **(1 mark)**

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(b) the figure below shows an object of mass 0.2kg whirled in a vertical circle of radius 0.3m at uniform speed of 4m/s



Determine the tension of the string at:

(i) Position A **(2 marks)**

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(ii) Position B **(2 marks)**

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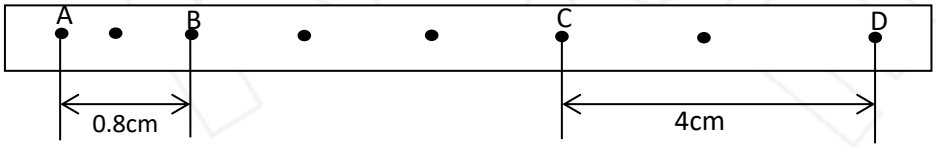
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(iii) Suggest the point where the string is likely to snap. **(1 mark)**

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(d) The figure below shows the motion of a trolley on a ticker tape timer whose frequency is 100HZ



Determine:

(i) Initial velocity at points AB. **(2 marks)**

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(ii) Velocity at points CD **(2 marks)**

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(iii) Acceleration of the trolley during the motion. **(2 marks)**

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16. (a) Give the reason why a density bottle is more accurate than a measuring cylinder when used to measure volume of liquids. **(1 mark)**

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(b) State two precautions taken when using a density bottle. **(2 marks)**

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(c) A form one student wanted to determine the density of copper. She wrote the following procedure: Study it and answer the questions that follow.

- Measure the mass x_1 (g) of a clean dry empty density bottle
- Fill the bottle partly with copper turnings and measure the mass x_2(g)
- Fill the bottle with water up to the neck and measure its mass x_3(g)
- Empty the bottle and rinse it.
- Fill it with water and replace the stopper. Measure the mass x_4(g) of the bottle filled with water.

Write an expression for:

(i) Volume of the bottle **(2 marks)**

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(ii) Mass of copper turnings **(1 mark)**

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(iii) Volume of copper turnings. **(2 marks)**

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(iv) Density of copper. **(2 marks)**

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17. (a) State the law of floatation **(1 mark)**

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(b) A metal block weighs 0.8N is suspended by a string in water. If the block is completely immersed in water the tension in the string is 0.5N. Find

(i) The upthrust on the block **(1 mark)**

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(ii) The density of the block. **(3 marks)**

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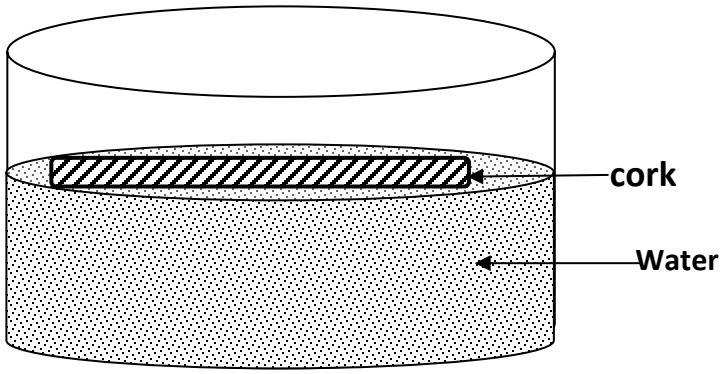
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(c) The figure below shows a cork of mass 25g floating in water.



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Determine the minimum volume of copper that must be attached so that the two will just submerge.(Relative density of copper = 9.0, Relative density of cork= 0.25**)** **(3marks)**

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(d) Explain how a submarine can be made to.

(i) Float on water **(1 mark)**

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18. (a) You are provided with the following apparatus:

A filter funnel, a thermometer, a stop watch, ice at 0°C, an immersion heater rated P watts, a beaker, a stand, boss and clamp and a weighing machine.

Describe an experiment to determine the specific latent heat of fusion of ice. Clearly state the measurements to be made. **(3 marks)**

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(b)200 g of ice at 0°C is added to 400g water in a well lagged calorimeter of mass 40g. The initial temperature of the water was 40°C. If the final temperature of the mixture is X°C,(Specific latent of fusion of ice L = 3.36×10^5 Jkg^{-1}, specific heat capacity of water, c = $4200Jkg^{-1}K^{-1}$, specific heat capacity of copper = 400 $Jkg^{-1}K^{-1}$.)

(i) Derive an expression for the amount of heat gained by ice to melt it and raise its temperature to X°C **(2 marks)**

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(ii) Derive an expression for the amount of heat lost by the calorimeter and its content when their temperature falls to X°C. **(2 marks)**

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(iii) Determine the value of X. **(3 marks)**

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(c) A hydrogen balloon of volume 1.2 m^3 is released at the ground level where the pressure is680 mmHg and a temperature of 20 °C. Determine the volume of the balloon at a height of2500m above the ground where the pressure drops to 500 mmHg and the temperature is 4°C. **(4 mrks)**

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19. A balloon seller has a cylinder of helium gas which he uses to blow up his balloons. The volume of the cylinder is 0.10m^3. It contains helium gas at a pressure of 1.0 x $10^7 Nm^{-2}$. The balloon seller fills each balloon to a volume of 1.0 x $10^{-2} m^3$ and a pressure of 2.0 x $10^5 N/m^2$

(a) Explain in terms of particles how the helium in the cylinder produces a pressure**(1 mark)**

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(b) Calculate the total volume that the helium gases occupy at a pressure of 1.2×10^5 N/m^2. Assume the temperature of the helium does not change **(3 marks)**

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(c) Calculate the number of balloons of volume 1.0×10^{-2}m^3 that the balloon seller can fill using the gas **(2 marks)**

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(d) The graph below shows how the pressure of a gas trapped inside a sealed container changes with temperature. The pressure is caused by the gas particles continually hitting the sides of the container.

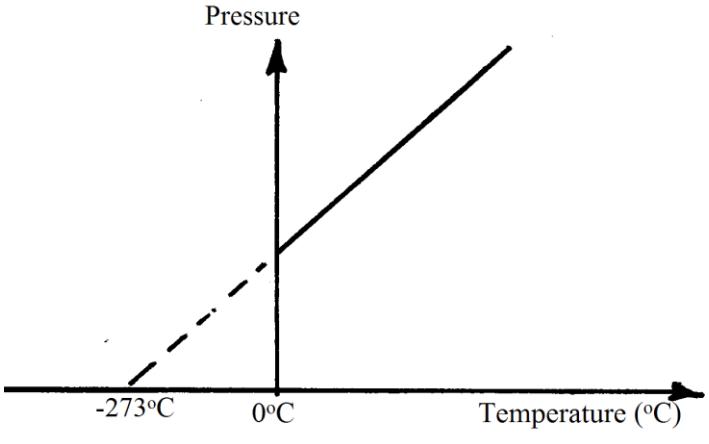


Figure 6

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(i) Write down the name of the temperature at which the gas particles stop hitting the sides of the container **(1 mark)**

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(ii) What is the momentum of the gas particles at this temperature? Give reason for the Answer **(2 marks)**

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(iii) Give the value of the temperature in Kelvin **(1 mark)**

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END

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

PHYSICS

232/2

PAPER 2 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

(a) Write your name, index number in the spaces provided above.
(b) Sign and write the date of the examination in the spaces provided
*(c) This paper consists of **TWO** Sections: **A** and **B**.*
*(d) Answer **ALL** the questions in section **A** and **B** in the spaces provided.*
***(e)** All working **MUST** be clearly shown.*
(f) KNEC mathematical tables and silent non-programmable electronic calculators may be used.

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Section	Question	Maximum score	Candidates score
A	1-13	25	
B	14	11	
	15	11	
	16	13	
	17	10	
	18	10	
	TOTAL SCORE	80	

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SECTION A: 25marks

1. The chart below shows an arrangement of different parts of the electromagnetic spectrum.

Radio wave	A	Infrared rays	B	Ultra-violet	χ-Rays

Name the radiation represented by

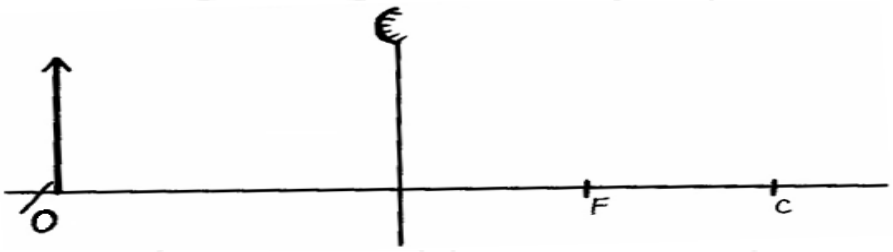
A ……. **(1mark)**

State one use of radiation represented by B **(1mark)**

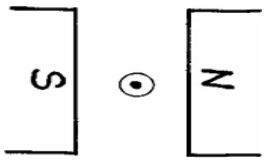
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2. An object O is placed in front of convex mirror as shown in the diagram below. Complete the diagram to locate the position of the image, 1. **(3 marks)**



3. The figure below shows a wire carrying current whose direction is out of the paper. The wire is placed in a magnetic field.



(a) Indicate on the figure the direction of the force F, acting on the wire. **(1 mark)**

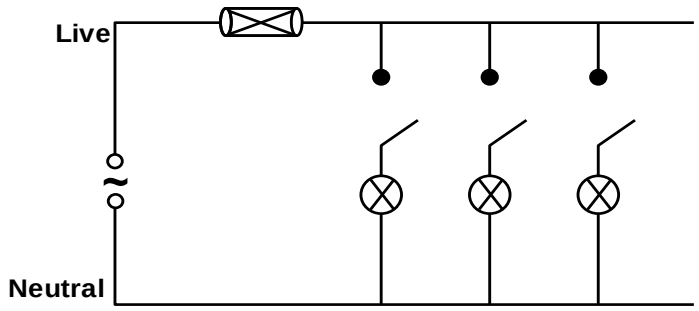
(b)State what would be observed on the wire if the direction of the current is reversed. **(1 mark)**

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4. The figure below shows part of the lighting circuit of a house.



i) Give a reason why a fuse is included in the circuit**.** **(1 mark)**

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ii) If each lamp has a power of 60W at voltage of 240V. Calculate the current through one lamp when it is switched on. **(2 marks)**

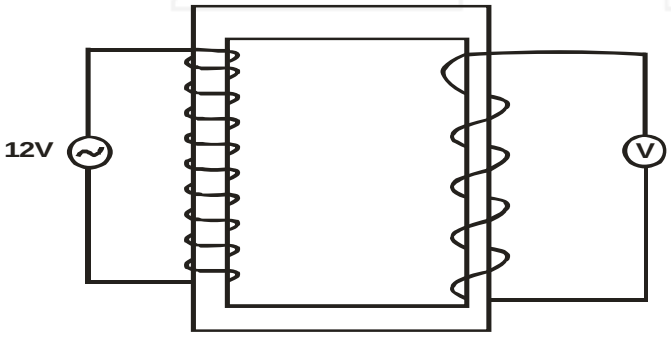
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5. Figure 5 below shows a simple transformer connected to a 12v a.c source and an a.c voltmeter.



Determine the reading on the voltmeter. **(2 marks)**

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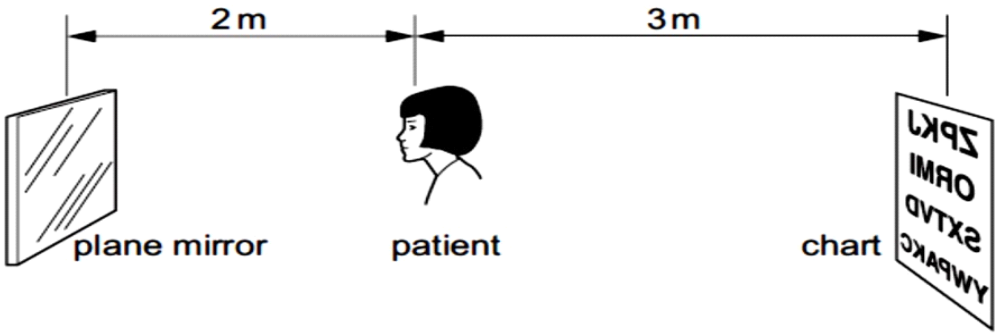
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6. The diagram shows a patient having her eyes tested. A chart with letters on it is placed behind her and she sees the chart reflected in a plane mirror.



Determine how far away from the patient, the image of the chart is seen**.** **(2 marks)**

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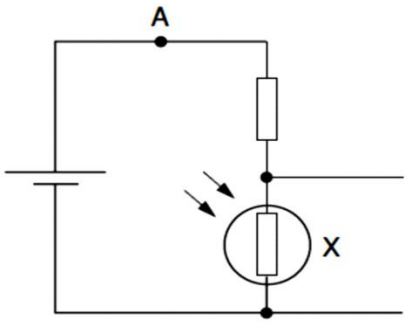
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7. State Snell's law. **(1 mark)**

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8. The figure below shows an electric circuit.



State and explain how the potential difference across X varies as the light shining on it becomes brighter**.** **(2marks)**

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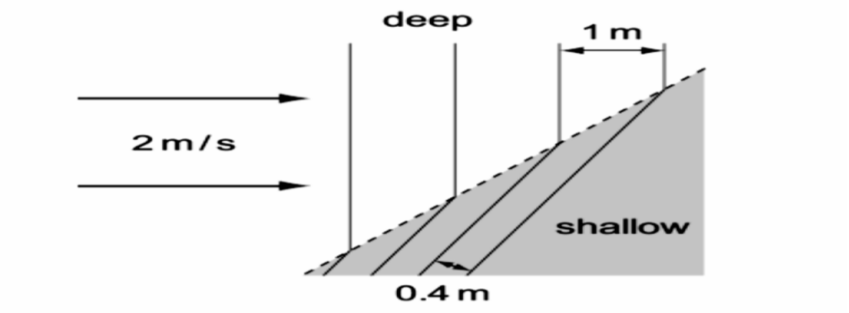
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9. Waves pass from deep water to shallow water and refraction occurs.



Calculate the speed of the waves in the shallow water **(2 marks)**

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10. The diagram below shows a ray of light striking the plane at 35^{o} as shown below.

State the angle of reflection. **(1 mark)**



11. The figure below shows an iron bar being magnetized by stroking it with a magnet.



Indicate on the iron bar the polarity of resulting magnet. **(1 mark)**

12. An echo sounder of a ship transmits sound waves to the depth of the sea and receives the echo after 2.4 seconds. If the speed of sound in water is 1600ms^{-1}, determine the depth of the sea.

(3 marks)

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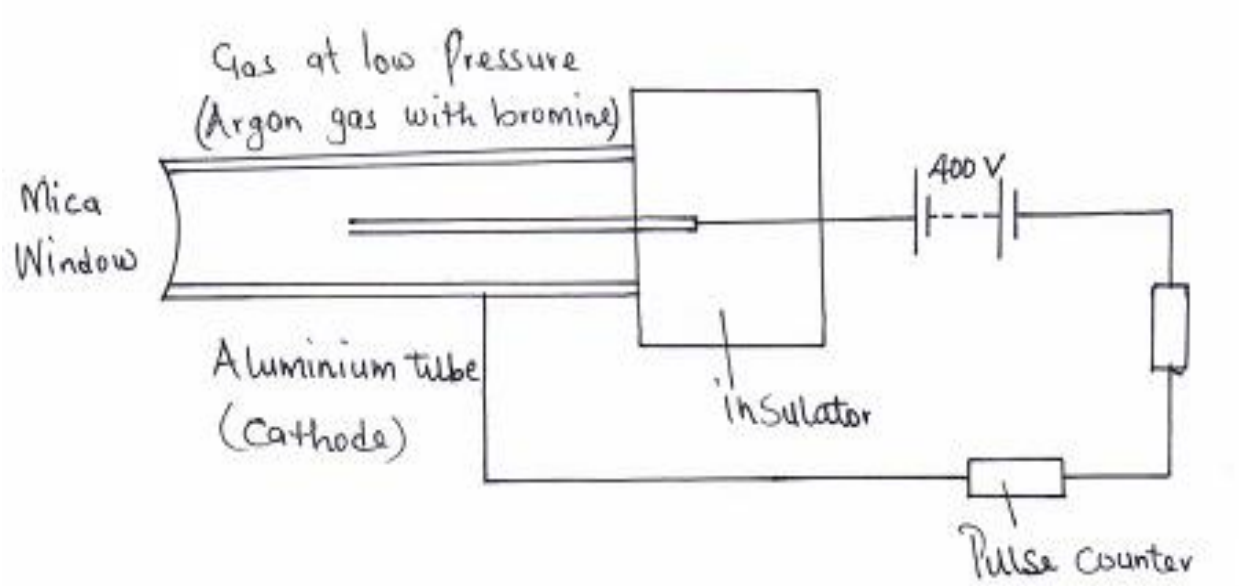
13. It is observed that when a charged body is brought near the cup of a positively charged electroscope, the divergence of the leaf increases. State the type of charge on the body.**(1mark)**

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SECTION B (55 marks)

14. (a) The figure below shows a diagram of a Geiger Muller tube connected to a power supply and a pulse counter.



(i) Why should the argon gas be at low pressure? **(1mark)**

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(ii)State the purpose of the bromine gas in the tube. **(1mark)**

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(iii) Suggest one way of increasing the sensitivity of the **tube** **(1mark)**

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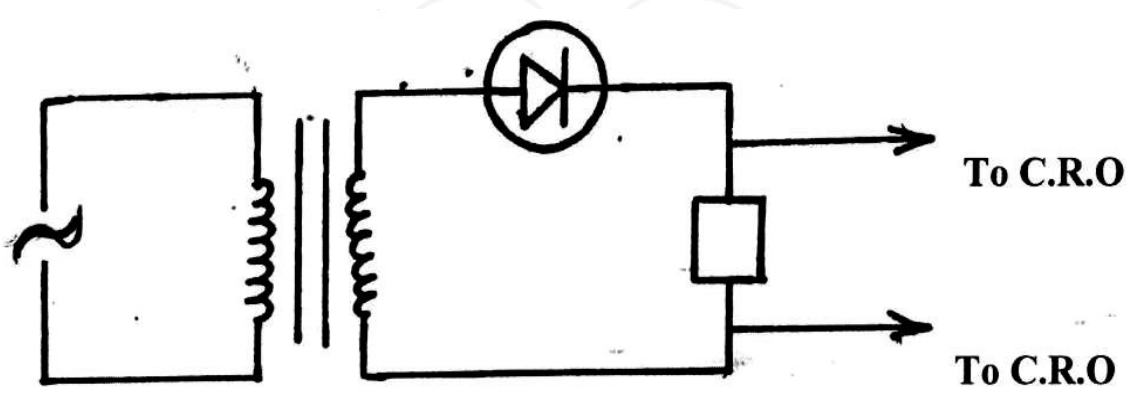
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(iv) Find the value of a and b in the following equation. **(2marks)**

$$^{234}_{92}U \rightarrow ^{a}_{b}X + 2\alpha$$

b) The figure below shows a PN junction diode used in a rectifier.



i)) What is an extrinsic semi conductor? **(1mark)**

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ii) What type of rectification is shown? **(1mark)**

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iii) Describe how the rectification is achieved **(2marks)**

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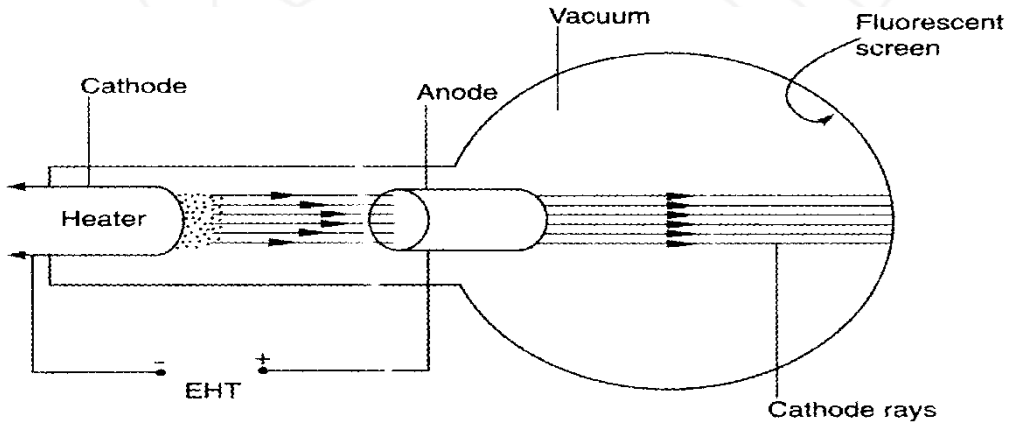
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iv) In the space provided below, sketch the output signal displayed on the CRO during the rectification process. **2marks)**



15. The figure below shows a cathode ray tube



a) State the function of the

i) Heater **(1mark)**

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ii) Extra High Tension (E.H.T**.)** **(1 mark)**

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b) State how the intensity of the fluorescence on the screen can be increased**.** **(1 mark)**

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b) State how the intensity of the fluorescence on the screen can be increased**.** **(1 mark)**

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c) State the effect of having air in the tube instead of a vacuum **(1 mark)**

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d) State one properties of cathode rays **(1 mark)**

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e) Distinguish cathode rays and X-**rays** **(1 mark)**

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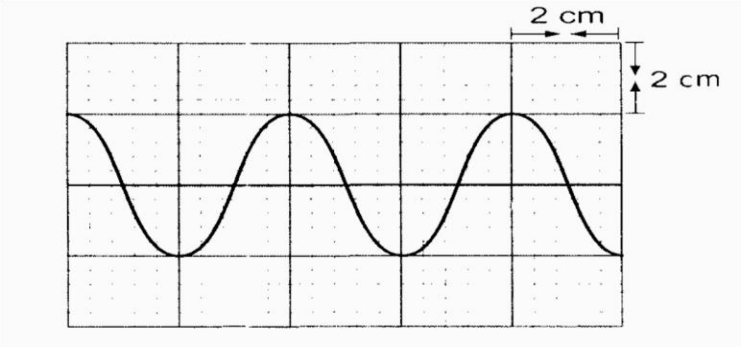
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f) Give one advantages of using a C.R.O instead of a voltmeter in measuring voltages **(1 mark)**

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g) The figure below shows an a.c. voltage. If the Y-gain control reads 10V/cm and the time base reads 5 milliseconds/cm



Calculate:

i) The frequency of the alternating voltage **(2 marks)**

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ii) Peak to peak voltage of the alternating voltage **(2 marks)**

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16 (a)(i) It is observed that when ultra- violet radiation is directed onto a clean zinc plate connected to the cap of a negatively charged leaf electroscope, the leaf falls .Explain this observation **(2 marks)**

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(ii) State why this observation does not occur if the electroscope is positively charged **(1 mark)**

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(iii) ,Explain why the leaf of the electroscope does not fall when infra- red radiation is directed onto the zinc plate **(1 mark)**

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b) State the effect on the electrons emitted by the photoelectric effect when:

(i) The intensity of incident radiation is increased **(1 mark)**

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(ii) The frequency of the incident radiation is increased **(1 mark)**

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c) Light of wavelength 4.3×10^{-7}m is incident on two different metal surfaces, nickel and potassium. (Take speed of light as 3.0×10^{8} ms^{-1} and planks constant h as $6.63 \times l0^{-34}$Js).

(i) Determine the energy of the incident radiation. **(3 marks)**

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(ii) If the work function of nickel is 8.0×10^{-19}J and that of potassium is 3.68×10^{-19}J, state with a reason from which of the two metals the given light will eject electrons. **(2 marks)**

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(iii) Determine the velocity of the emitted electrons from the metal surface in b(ii).

(Take the mass of an electron as 9.1×10^{-31} kg). **(2 marks)**

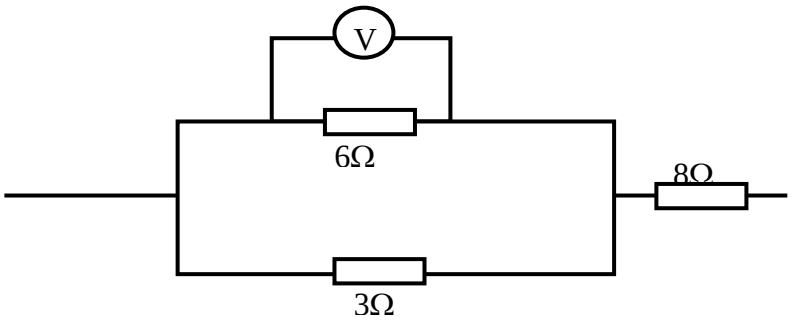
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17(a) The figure below shows three resistors as shown.



If the voltmeter reads 4V, find the

(i) Effective resistance **(3marks)**

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(ii) Current through the 3Ω resistor **(2 marks)**

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(iii) Potential difference across the 8Ω resistor if the voltage total voltage in the circuit is 10V **(1 mark)**

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(c) (i) What is meant by the term "terminal voltage" as used in current elecricity? **(1mark)**

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(ii) A cell supplies a current of 2.0A when connected to a 0.6Ω resistor and 1.5A when the same cell is connected to a 0.9Ω resistor.Find the e.m.f and the internal resistance of the cell. **(3marks)**

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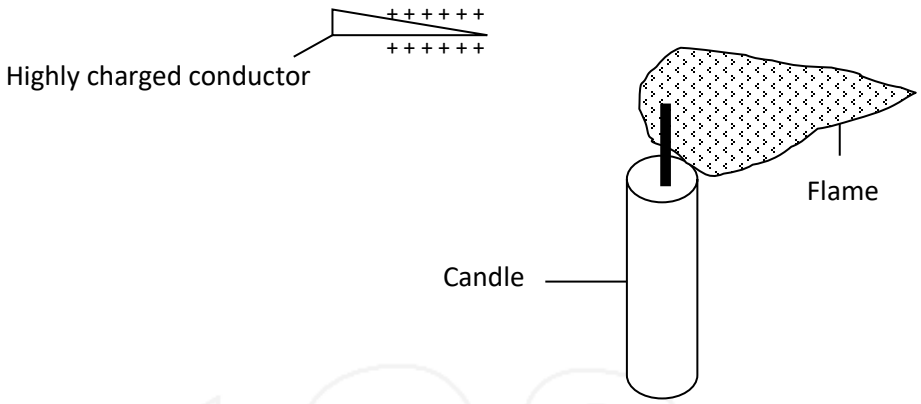
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18((a) Give a reason why a candle flame is blown when a highly charged conductor is brought close to it as shown below. **(1mark)**



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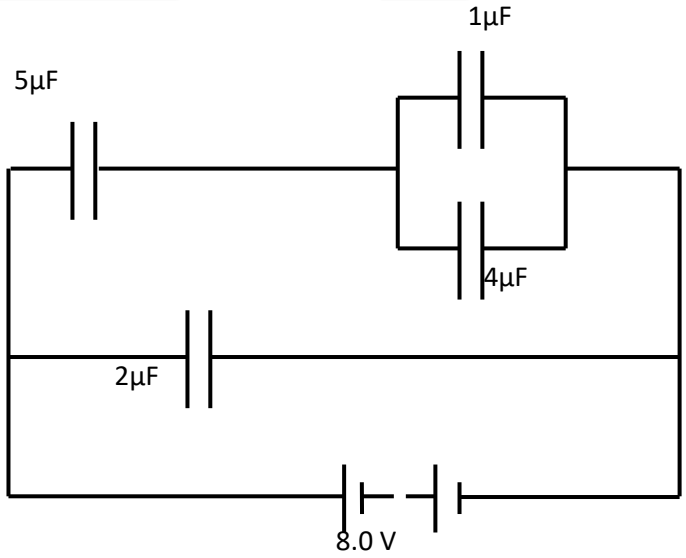
b) State two factors that affect capacitance of a capacitor **(2 marks)**

.....

.....

.....

c)The figure below shows 1μF, 2μF, 4μF and 5μF capacitors connected to a battery.



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Determine:

i) The total capacitance. **(3marks)**

……

……

……

……

……

ii)The total energy stored by the capacitors. **(2marks)**

……

……

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iii) Voltage across the 4μF capacitor. **(2marks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

PHYSICS

232/3

PAPER 3 (PRACTICAL)

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES:-

- *Write your **name**, **index number** and **school** in the spaces provided above.*
- *Answer all the questions in the spaces provided above.*
- *You are supposed to spend the first 15 minutes of the 2 ½ hours allowed for this paper reading the whole paper carefully before commencing your work*
- *Marks are given for a clear record of the observations actually made their suitability, accuracy and the use made of them.*
- *Candidates are advised to record their observations as soon as they are made.*
- *Non- programmable silent calculators and KNEC Mathematical tables may be used.*

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1	20	
2	20	
40		

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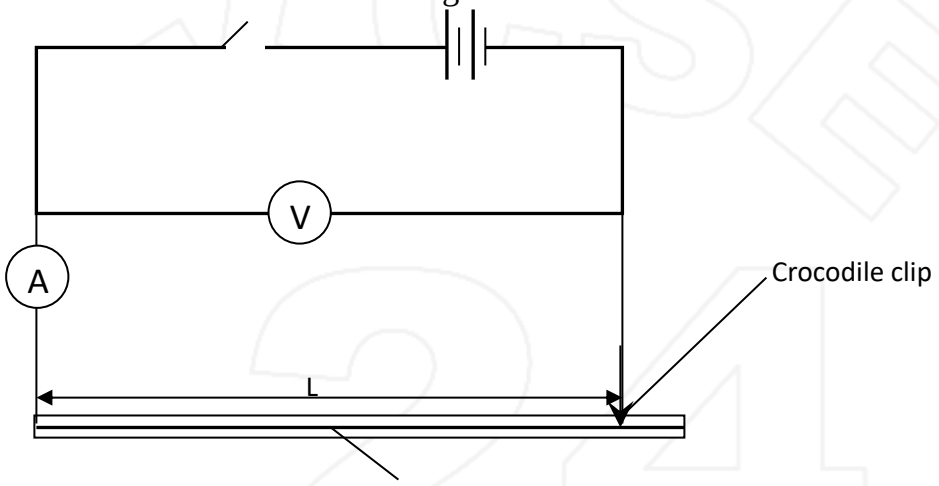
1. PART A

You are provided with the following apparatus .

- ✓ Two dry cells
- ✓ Resistance wire mounted on a mm scale
- ✓ An ammeter (0- 1 A)
- ✓ Cell holder
- ✓ Voltmeter (0- 3 V)
- ✓ 8 connecting wires, at least four with crocodile clips on one end.
- ✓ Switch

Procedure as follows:

a) Connect the circuit as shown in the diagram below.



b) Close the switch and disconnect the clip and record the voltmeter reading E

E = ……V. **1mk**

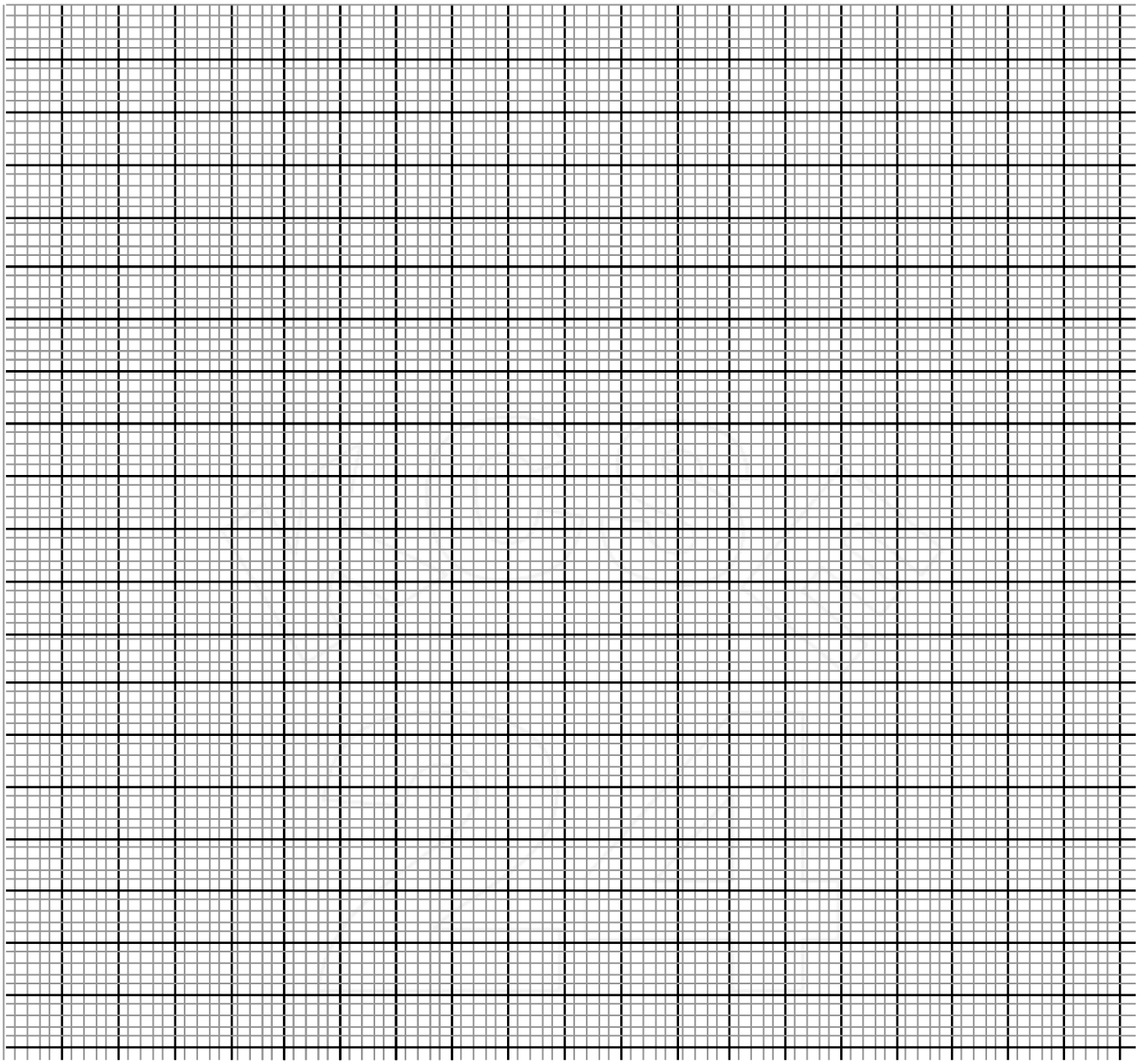
c) Connect the clip at c where L is 100cm across the terminals as shown in the figure and record the values on the table below

d) Repeat the procedure c for the other values of L and complete the table

Length L (cm)	**95**	**80**	**65**	**50**	**35**	**20**
Current I (A)						
P.D. (V)						
E- V (V)						

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e) On the grid provided plot a graph of (E – V) y-axis against I. **(5 mks)**



f) Determine the slope S of the graph **(2 mks)**

g) Given that E = V + Ir determine r from your graph **(2 mks)**

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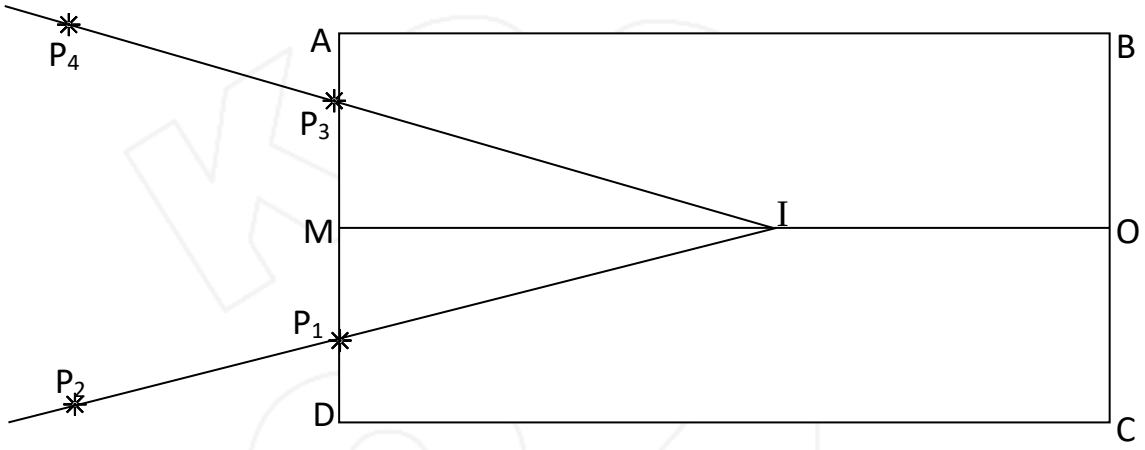
PART B

You are provided with the following apparatus

- Rectangular glass block
- 3 optical pins
- A soft board
- A plane paper
- 4 paper pins

Procedure as follows:

Place the rectangular glass block in the middle of the plane paper and trace its outline using a pencil. Remove the block .



Mark the point O, the mid point of BC M the midpoint of AD. Join O to M.

Measure $P_1M=P_3M$ = 2 cm

Measure OM: _____

i. Place the plane paper on the soft board, stick it using the paper pinsand carefully replace the glass block so that it can fit the outline .

ii. Press the object pin at O such that it is upright and touching the glass block and the second pin at P_1 also upright and touching the block.

iii. Press the third pin P_2 a short distance from the block such that P_1,P_2 and the imageI lie on a straight line when viewed through the block with one eye.

iv. Remove the glass block and draw the line P_1P_2 to cut OM at I

v. Repeat procedure (iii) and (iv) above with pins at P_3 and P_4.

Measure the length IM

IM = _____(1 mk)

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vi. Find n given that n = **(2 mks)**

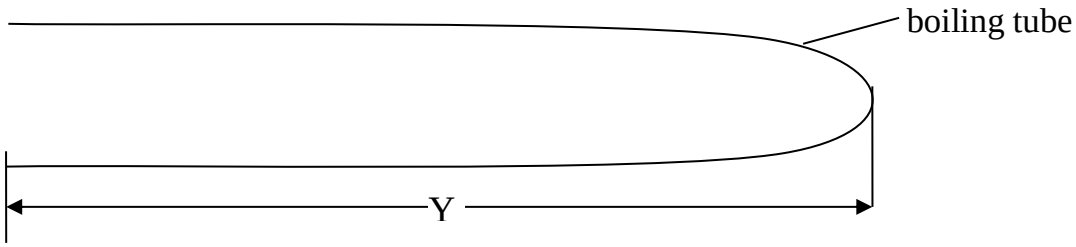
QUESTION 2

A. You are provided with the following

- a boiling tube
- Some sand
- Liquid L in a container
- A balance
- A half meter rule
- Some tissue papers
- Vernier calipers
- A 50g mass
- A string
- Stopwatch
- String
- A retort stand

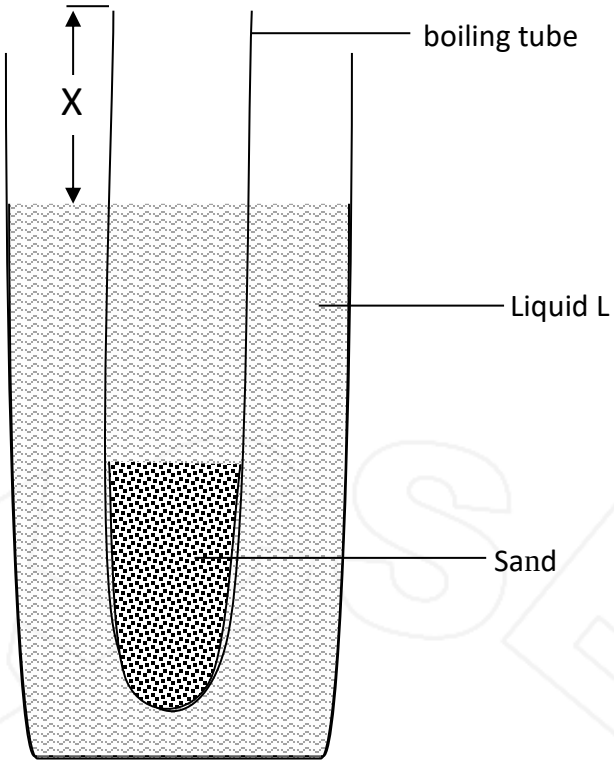
Proceed as follows

a) Measure and record the total length Y of the boiling tube



b) Put the amount of sand provided into the tube and place it in liquid L as shown below

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c) Measure and record the length X of the tube above the liquid level;

make sure that the boiling tube is upright

X = _____ cm **1mk**

d) Determine the constant L given that L = Y – **X** **(2 mks)**

e) Remove the boiling tube from the liquid, wipe it and measure the mass M of the tube and its content

f) Using the calipers, measure the diameters d_1 and d_2 at two different positions of the boiling tube **(2 mks)**

d_1 = _____ cm

d_2 = _____ cm

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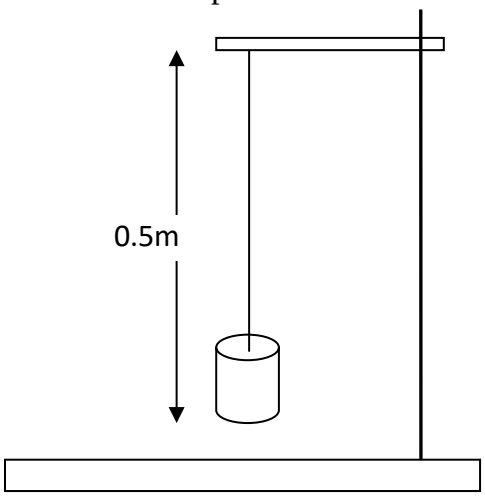
g) Determine the average d_{av} of d_1 and d_2 **2mks**

h) Determine the constant given that

= and give its unit **4mks**

Part B

i) Now use the mass provided and set it up as shown below with the length of 0.5m



Displace the mass horizontally and release it and take the time t for 10 oscillation

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t = _____ sec (1 mk)

j) Determine the time T for one oscillation **(2 mks)**

k) Determine the constant g given that

g = and state its unit (**4 mks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

BIOLOGY

231/1

PAPER 1 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

231/1

Biology

Paper 1

(Theory).

INSTRUCTIONS TO CANDIDATES:

- *Write your name and index number in the spaces provided.*
- *Sign and write date of examination in the spaces provided above*
- *Answer all the questions in this paper in the spaces provided.*

FOR EXAMINER'S USE ONLY:

QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE %
1- 21	80	

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Answer all the questions in this paper

1. (a) What is carbonic anhydrase? **(2 marks)**

……

……

……

(b) State the role of haemoglobin in the transport of carbon (IV) oxide. **(2 marks)**

……

……

……

2. What is the role of light to a lion in the ecosystem? **(4 marks)**

……

……

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……

3. (a) State the contents of lysosomes. **(1 mark)**

……

……

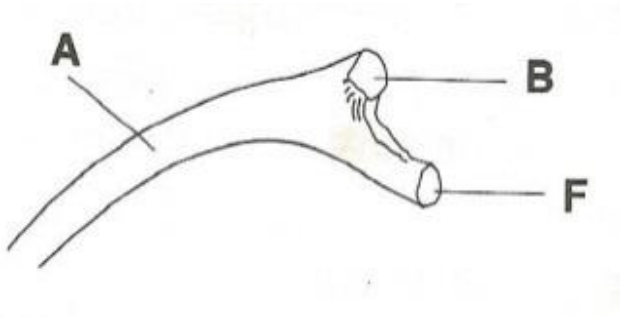
(b) State the functions of the contents named in (a) above. **(2 marks)**

……

……

……

4. (a) The diagram below represents part of a rib.



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Name the parts labelled **A**, **B** and **F**. **(3 marks)**

A……..…….

B……

F……

(b) State the function of the broad facets on the anteriour part of the atlas. **(1 mark)**

……

……

5. Describe the role played by water in the support of herbaceous plants. **(3 marks)**

……

……

……

……

6. State the role played by the following structures during inhalation:

(a) Diaphragm, **(2 marks)**

……

……

(b) Intercostal muscles. **(3 marks)**

……

……

……

……

7. (a) Name **two** genetic disorders of blood. **(2 marks)**

……

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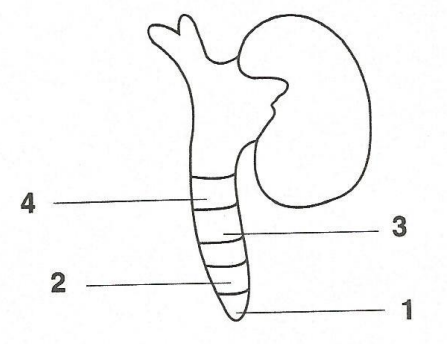
(b) Define the term backcross. **(1 mark)**

……

……

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8. The diagram below shows a newly germinated seedling with ink marks 2 mm apart. Study it and answer the questions that follow.



(a)(i) Which region would you expect to be longest after 5 days further growth? **(1 mark)**

……

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

……

……

(b) In which regions would you expect root hairs to appear? **(1 mark)**

……

(c) Name the structure that protects the region labelled **I**. **(1 mark)**

……

9.(a) How is high pressure build up in the glomerulus? **(1 mark)**

……

……

(b) Why is this pressure necessary? **(1 mark)**

……

……

10. (a) Describe the concentration and volume of urine produced by a person who has been playing soccer on a hot day. **(2 marks)**

……

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(b) Explain your answer in (a) above. **(3 marks)**

……

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……

11. (a)(i) Name the process that results in the formation of pyruvic acid in a cell. **(1 mark)**

……

(ii) Name the part of a cell where the process named in (a) above occurs. **(1 mark)**

……

(b) Name the process that utilizes the pyruvic acid from the process named in (a) above. **(1 mark)**

……

12. Name the organelle that performs the following functions in a cell.

(a) Transports cell secretions, **(1 mark)**

……

(b) Controls materials entering and leaving the nucleus. **(1 mrk)**

……

(**c) Forms** cilia and flagella. **(1 mark)**

……

13.(a)Name the structure responsible for intermittent growth in an insect, giving a reason.**(2 mks)**

……

……

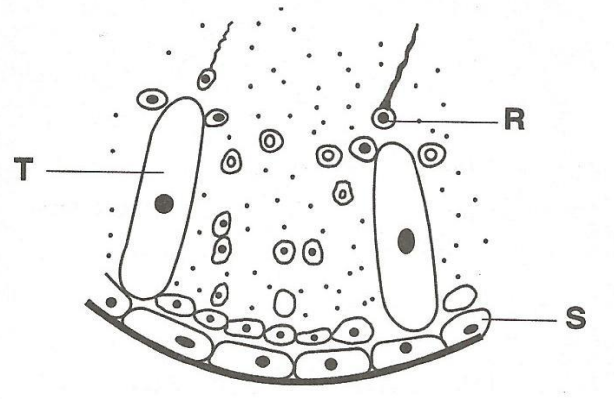
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(b) Name a hormone produced by the corpus allatum in insects. **(1 mark)**

……

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14. The diagram below shows part of a seminiferous tubule.



(a) Name the parts labelled **R**, **S** and **T**. **(3 marks)**

R ……

S……

T ……

(b) Name the tube into which the seminiferous tubules open. **(1 mark)**

……

15. State **two** main events that occur at interphase I. **(2 marks)**

……

……

16. Describe how oxygen from the environment reaches a respiring cell of a terrestrial leaf.**(3 mks)**

……

……

……

……

……

17. Give **two** reasons why gametes are haploid. **(2 marks)**

……

……

……

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18. A plastic bottle full of water was stoppered with a piece of stem from a young herbaceous plant, whose epidermis had been peeled off. After 24 hours, it was noted that the stopper closed the bottle tightly. Explain the observation made. **(3 marks)**

……

……

……

……

……

19. (a) Name the products of the light dependent stage of photosynthesis**.** **(1 mark)**

……

……

(b) Explain why some plants such as *Drosera* species trap and digest insects. **(3 marks)**

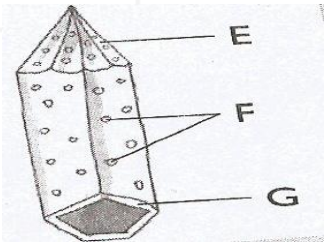
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20. The diagram below represents a certain plant structure.



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

……

(b) Name the parts labelled **E**, **F** and **G**. **(3 marks)**

E ……

F ……

G……

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(c) State **two** functions of the structure. **(2 marks)**

……

……

21.(a) What are fossils? **(1 mark)**

……

……

(b) State **two** limitations of the use of fossils as evidence for evolution. **(2 marks)**

……

……

……

(c) What is meant by the following terms?

(i) Struggle for existence**,** **(1 mark)**

……

……

(ii) Survival of the fittest. **(1 mark)**

……

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

BIOLOGY

231/2

PAPER 2 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES:

- *Write your **name** and **admission number** in the spaces provided.*
- *Answer **all** the questions in this paper in the spaces provided.*
- ***Answer questions 1-6 (compulsory) and either question 7 or 8.***

FOR EXAMINER'S USE ONLY:

QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
1	8	
2	8	
3	8	
4	8	
5	8	
6	20	
7 or 8	20	

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SECTION A

Answer all questions in this section

1. A student carried out an investigation on the methods of reproduction and feeding in Amoeba species. He observed that amoeba doubled in water after 20 minutes.

(a) Name the type of reproduction shown by amoeba species. **(1 mark)**

……

……

(b) Illustrate the process of reproduction named in (a) above. **(2 marks)**

(c) If at the start of the investigation, there were 20 amoeba cells in a given quantity of pond water. Calculate the total number of amoeba cells which would be present in the sample of pond water after three (3) hours. **(2 marks)**

……

……

……

(d) State the functions of pseudopodia in amoeba species. **(2 marks)**

……

……

……

(e)(i) Name **one** type of specialized cells in human body which shows a similar mode of feeding as amoeba species. **(1 mark)**

……

(ii) Name the process of feeding shown by the cell named in (e) (i) above. **(1 mark)**

……

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2. During an ecological study of a lake, a group of students recorded the following observations;

(i) Planktonic crustaceans feed a planktonic algae.

(ii) Small fish feed on planktonic crustaceans, worms and insect larvae.

(iii) Worms feed on insect larvae.

(iv) A bird species feeds on small fish, planktonic crustaceans and worms.

(v) Insect larvae feed on planktonic algae.

(vi) Large fish feed on small fish.

(a) Construct a food web to represent the record of observation provided above. **(3 marks)**

(b) From the food web you have constructed in (a) above isolate and write down a food chain that ends with;

(i) Birds species as secondary consumer. **(1 mark)**

……

……

(ii) Large fish as tertiary consumer. **(1 mark)**

……

……

(c) The biomass of the producers in the lake was found to be greater than that of the primary consumers. Give an explanation for this observation. **(1 mark)**

……

……

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(d) State **two** ways by which man may interfere with this ecosystem**.** **(2 marks)**

……

……

……

3. Broad and thin lips are inheritable characteristics in humans. When a homozygote broad lipped man is married to a homozygote thin lipped woman, all the children in the family are broad lipped. In a particular family, a woman that is heterozygote for broad lips is married to a man whose parents were both thin lipped. Let B represent gene for broad lips.

(a) Work out the genotypes of the children in that family. (Use a punnet square). **(4 marks)**

(b) Work out the phenotypic ratio and genotypic ratio of the resulting children from the crossing in (a) above. **(2 marks)**

……

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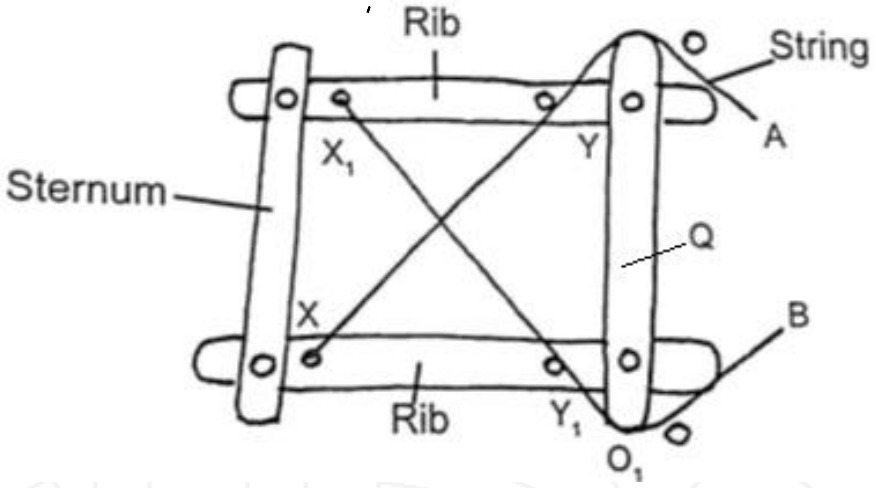
(c) Give two sex- linked traits in man **(2 marks)**

……

……

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4. The figure below shows a model which was used by a group of Form 2 students to show the effect of or action of intercostal muscles on the movement of ribs.



(a) How does the sternum move when; **(2 marks)**

(i) String A is pulled tight.

……

……

(ii) String B is pulled tight.

……

……

(b) Between string A and B, which one represents; **(2 marks)**

(i) External intercostal muscles?

……

(ii) Internal intercostal muscles?

……

(c) What does structure Q represent in an animal? **(1 mark)**

……

……

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(c) The rates of gaseous exchange by different respiratory surfaces of plants were determined and recorded in the table below.

Structure	Gaseous exchange in %
A	89
B	3
C	0.3

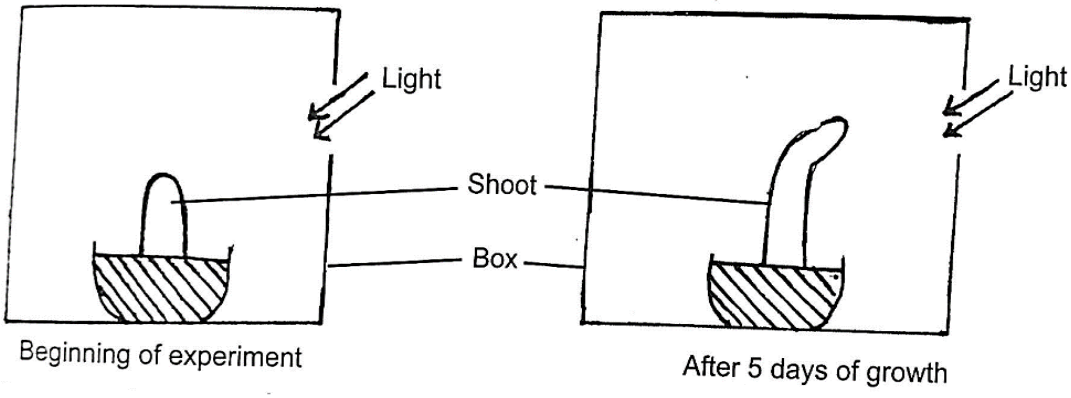
Suggest the possible plant structure represented by A, B, C. **(3 marks)**

A ……

B ……

C ……

5. The diagram below shows an experiment set up using a seedling enclosed in a desk box with a hole on one side at the beginning of the experiment and after five days of growth.



(a) What type of response is shown by the above shoot? **(1 mark)**

……

(b) State **two** observable changes which took place in the seedling after five days of growth.

(2 marks)

……

……

……

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(c)Account for the observable changes in (b) above. **(2 marks)**

……

……

……

……

(d) What observations would be made after five days of growth if the shoot was placed in a box without a hole on one side? **(3 marks)**

……

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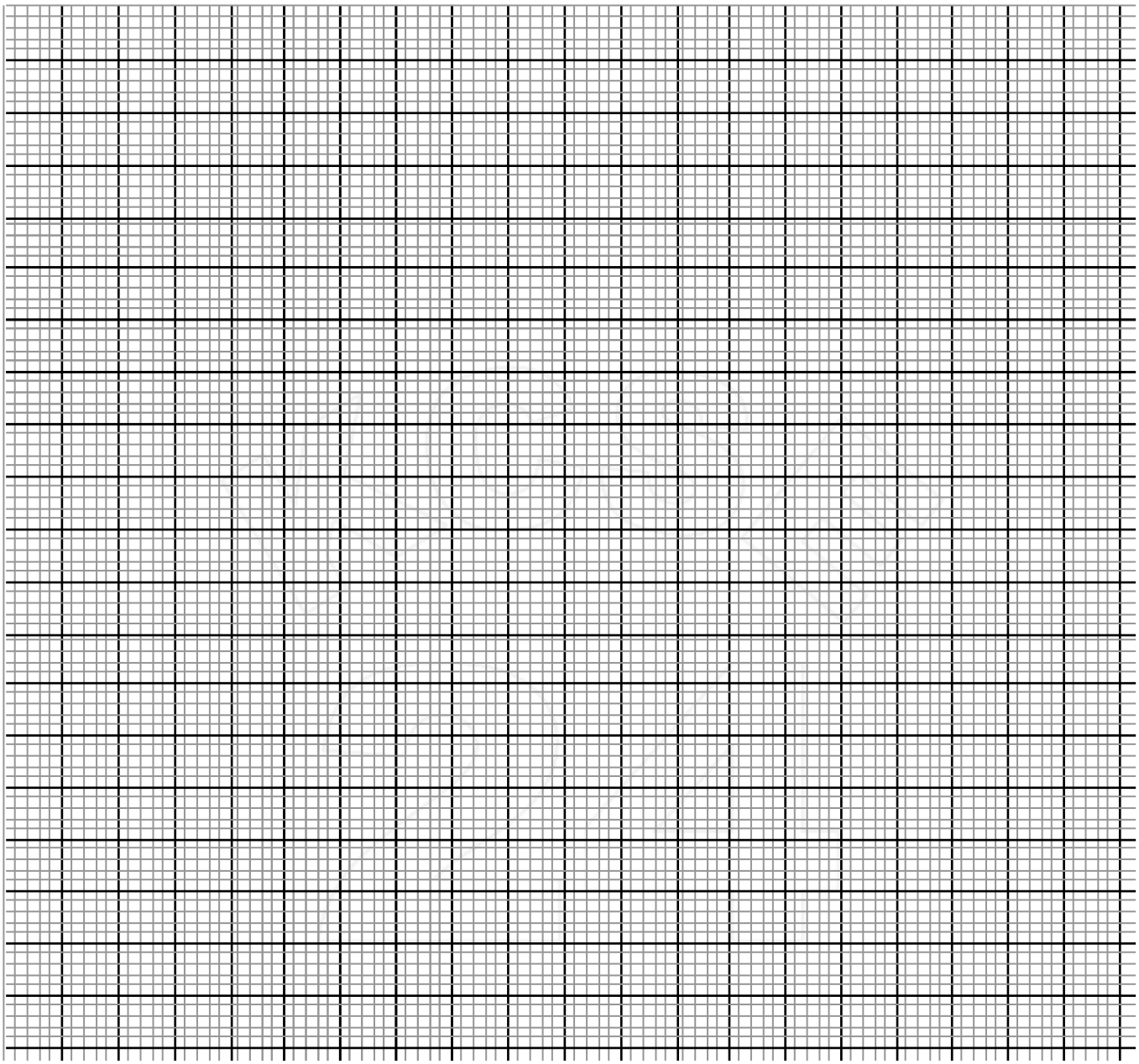
SECTION B

6. The table below shows how variation in environmental temperature relate to the body temperatures of two different types of animals A and B.

	Body temperature (^{0}C)	
Environmental temp (^{0}C)	Animal A	Animal B
5	5	36
10	10	37
15	15	37
20	20	37
25	25	37
30	29	37
35	36	37
40	41	37
45	44	37

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(a) Using the information in the table above, plot a graph on same axes of body temperatures animals against environmental temperature. **(7 marks)**



(b) With reference to thermoregulation, state the general name given to animals of the A and B types. **(2 marks)**

A - type animals

……

……

B - type animals

……

……

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(c) What **three** advantages do B-type animals have over A-type animals? **(3 marks)**

……

……

……

(d) Briefly describe how B-type

i) Physiologically respond to heat **(4 marks)**

……

……

……

……

……

ii) Physiologically respond to cold **(4 marks)**

……

……

……

……

……

7. Describe experiments you would conduct to show that;

(a) Carbon (IV) oxide, (b) Chlorophyll and (c) Sunlight are necessary for the process of photosynthesis under the following subheadings:- **(20 marks)**

(i) Aim
(ii) Materials and apparatus
(iii) Procedure
(iv) Expected observation
(v) Conclusion

8. Describe **five** evidences, which support the theory of organic evolution. **(20 marks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

BIOLOGY

231/3

PAPER 3 (PRACTICAL)

TIME: 1¾ HOURS

SCHOOL…… SIGN……

Kenya Certificate of Secondary Education.

CONFIDENTIAL

- ***a)*** *4 Pieces of thread*
- ***b)*** *2 pieces of visking tubing (6cm)*
- ***c)*** *Solution Y(Brine) in a beaker (50ml)*
- ***d)*** *Measuring cylinder/ calibrated dropper*
- ***e)*** *Distilled water in a beaker (50ml)*
- ***f)*** *Starch solution marked X (in a testtube)*
- ***g)*** *Iodine solution in a beaker (50ml)*
- ***h)*** *Hibiscus flower marked K*

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

BIOLOGY

231/3

PAPER 3 (PRACTICAL)

TIME: 1¾ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

231/3

BIOLOGY

PAPER 3

PRACTICAL

INSTRUCTIONS TO CANDIDATES

- *Write your Name and Index No. in the spaces provided above*
- *Answer ALL the questions in the spaces provided*

FOR EXAMINERS USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATES SCORE
1		
2		
3		
TOTAL		

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1. You are provided with the following: pieces of thread, two pieces of visking tubing 6cm, Distilled water in a beaker, iodine solution in a beaker, Solution Y and Solution X. Open the two visking tubings and tie one end tightly. Using a dropper put 4 cm3 of Solution Y and 4 cm3 of solution X into each visking tubing, respectively. Ensure that the visking tubing containing solution X is immersed in the beaker containing iodine solution(set up **B)** and the visking tubing containing solution Y is immersed in beaker containing Distilled water (set up **A)** . Leave the set up for 30 minutes. Remove the Visking tubing and make observation

(a) State the **observations** **2 Mrks**

A

……

……

B

……

……

(b) State the physiological process in **2Marks**

A……

B……

(c) Account for the observation made in

A **(2 marks)**

……

……

……

B **(3 marks)**

……

……

……

……

……

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(d) State the importance of physiological process **A** in plants **2 Mks**

……

……

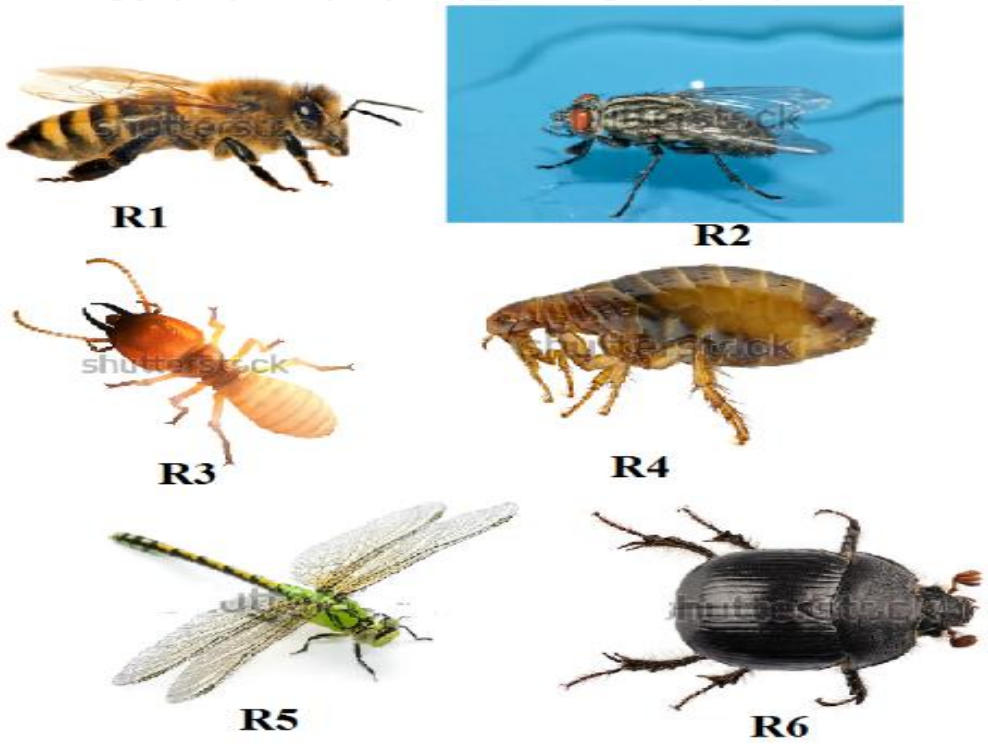
……

(e) How can you speed the process in **B**? **1Mark**

……

……

2. Below are photographs of invertebrates which belong to the same class. Examine them



a) To which class do the above invertebrates belong? **1Mark**

……

b) State two characteristics of the class named in (a) above **2 Marks**

……

……

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c) Complete the dichotomous key below to identify the invertebrates to their orders 3marks

1a. Animal with wings …… go to 3

b. ……go to 2

2a. Animal with hairy body ……Siphonoptera

b. Animal with smooth body……Isoptera

3a. Animal with one pair of wings……...Diptera

b. …….....go to 4

4a. Fore wings hard/elytra……Coleoptera

b. ……. ....Go to 5

5a. Long slender abdomen……Odonata

b. Short broad abdomen……..Hymenoptera

d) Using the dichotomous key above, identify to which orders the various organisms belong. In each case write down the steps that you followed to arrive at your answer. **(6mks)**

Specimen	Steps	Identity
R1		
R2		
R3		
R4		
R5		
R6		

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

a) Describe the floral parts **3 Marks**

……

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

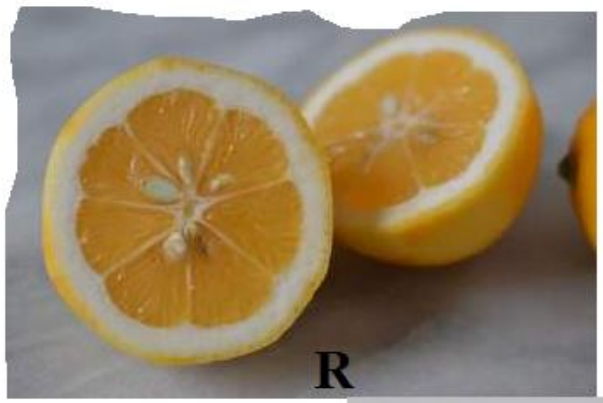
c) With a reason state the agent of pollination **2 Marks**

……

……

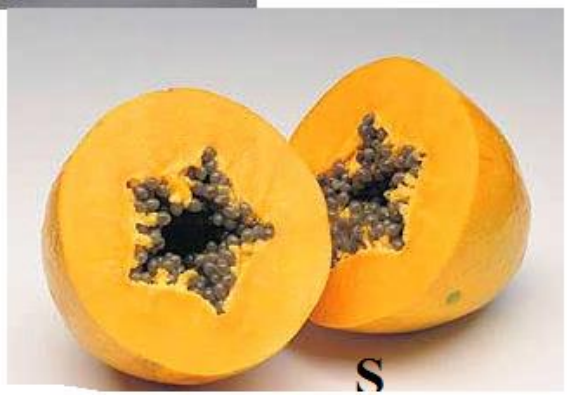
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d) The photographs labelled **Q, R**,and **S** are sections of some plant parts.





Q



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

Q……

R……

S……

(ii) Giving a reason in each case, name the mode of dispersal of the specimen in photograph **Q** and **S** **(4mark)**

Q Mode……

Reason

……

……

S Mode……

Reason

……

……

……

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

CHEMISTRY

233/1

PAPER 1 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

233/1

CHEMISTRY

PAPER 1

(THEORY)

INSTRUCTIONS TO CANDITATES

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

b) *Answer all the questions in the spaces provided in the question paper*

c) *Mathematical tables and silent electronic calculators may be used*

d) *All working must be clearly shown where necessary.*

QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
1-28		

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Answer all the questions in the spaces provided

1. Element A and B with atomic numbers 12 and 17 respectively react together

a) Write the electronic configurations of each

A …….. **(½ mk)**

B …… **(½ mk)**

b) Write the formula of a the compound formed between A and B **(1mk)**

……

2. The table below shows the PH values of solutions A, B, C and D

SOLUTION	**PH**
A	2.0
B	7.0
C	10.0
D	14.0

a) Which solution is likely to be that of ammonia solution **(1mk)**

……

b) Select a solution in which a sample of aluminium oxide is likely to react. Give a reason for your answer **(2mks)**

……

……

……

3. A hydrocarbon was found to contain 92.3% carbon, and the remaining is hydrogen. If its molecular mass is 78, determine its molecular formula (C =12, H=1) **(3mks)**

……

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4. In an experiment, sulphur (IV) oxide was bubbled into water followed by chlorine gas. The resulting solution gave a white precipitate when mixed with Barium chloride. Explain these observations. **(3mks)**

……

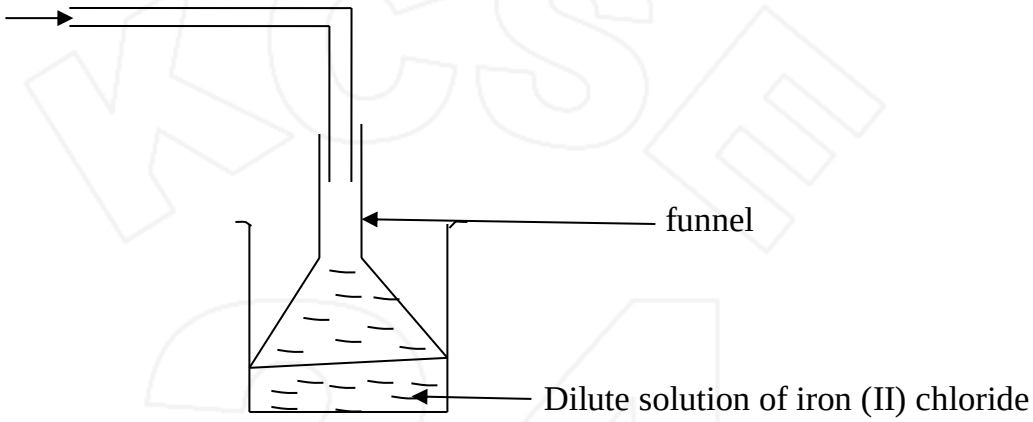
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5. Below is a set up of apparatus used to react ammonia gas with iron(II) chloride



a) State the observation made in the beaker **(1mk)**

……

b) State the reason for using a funnel to deliver the ammonia into the beaker **(1mk)**

……

……

c) Write an ionic equation for the reaction that takes place **(1mk)**

……

……

6. a) State Graham's law of diffusion **(1mk)**

……

……

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b) 200cm^3 of methane diffused through a porous pot in 40secs. Calculate the time taken for the same volume of hydrogen chloride gas to diffuse under the same conditions (H = 1,C=12,Cl = 35.5) **(2mks)**

……

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7. In an experiment, soap solution was added to three separate samples of water The table below shows volumes of soap solution required to form lather with 100cm^3 of which sample of water before and after boiling.

	SAMPLE I	**SAMPLE II**	**SAMPLE III**
Volume of soap before water is boiled (cm3)	25.0	5.0	10.0
Volume of soap after water is boiled	25.0	5.0	5.0

i. Which water sample is likely to be soft? Explain **(1mk)**

……

……

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ii. Explain the change in the volume of soap solution used in sample III **(2mks)**

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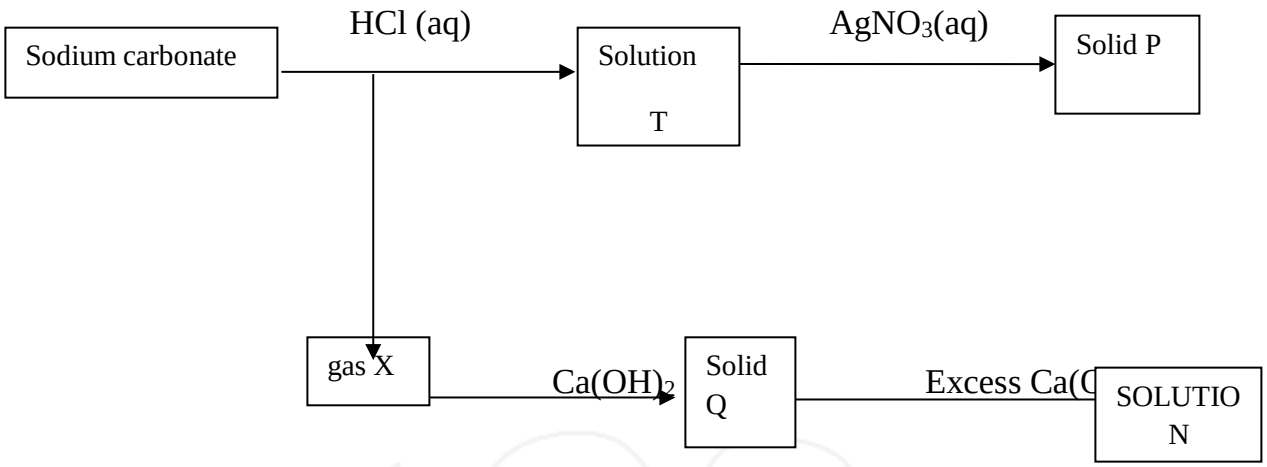
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8. Study the flow chart below and use it to answer the questions that follow



a) Identify using chemical formula substances L,P,Q and X

L…….. (½ mk)

P ……(½ mk)

Q ……(½ mk)

X……(½ mk)

b) write an ionic equation for the reaction between T and silver nitrate solution **(1mk)**

……

……

9. The following thermo-chemical equations show the combustion of carbon and hydrogen. The heat of formation of ethane is also given.

$C_{(s)} + O_{2(g)} \longrightarrow CO_{2(g)} \quad \Delta HC = -394KJ\ mol^{-1}$

$H_{2(g)} + \frac{1}{2} O_{2(g)} \longrightarrow H_2O_{(g)} \quad \Delta HC = -286KJ\ mol^{-1}$

$2C + 2H_2 \xrightarrow{\Delta} C_2H_4 \quad Hf = +52.3\ KJ\ mol^{-1}$

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(s) (g) (g)

Using the above information calculate the heat of combustion of ethane **(3mks)**

……

……

……

……

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10. Starting with nitric (v) acid, distilled water, lead (II) carbonate and sodium sulphate crystals. Describe how you can prepare solid lead (II) Sulphate **(3mks)**

……

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11. a) State the observation made when chlorine gas is bubbled through aqueous potassium iodide **(1mk)**

……

……

……

b) When chlorine water is left under sunlight its bleaching property is lost. Explain **(1mk)**

……

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……

c) Workout the oxidation state of chromium in $Cr_2O_7^{2-}$ **(1mk)**

……

……

……

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12. A solution of hydrogen chloride in methyl benzene goes not react with carbonates. However a solution of hydrogen chloride in water produces a vigorous effervescence with carbonates Explain the above observation **(2mks)**

……

……

……

13. Chlorine has two isotopes with atomic mass 35 and x occurring in the ratio 3:1 respectively. The relative atomic (R.M.A) of chlorine is 35.5. Determine the value of x. **(3mks)**

……

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14. Hydrogen sulphide was passed through aqueous lead nitrate

a) State and explain the observation that was made **(2mks)**

……

……

……

b) Write an ionic equation for the above reaction **(1mk)**

……

……

15. Ammonia gas in solution dissociates according to the equation below

$$NH_3(g) + H_2O(l) \rightleftharpoons NH_4^+(aq) + OH^-(aq)$$

a) Identify the acidic species in the above equation **(1mk)**

……

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b) What is the effect on equilibrium if sodium hydroxide is added to the mixture **(1mk)**

……

……

16. Solubility of Potassium chloride at 100°C is 39.8g/100g of water and at 80°C is 35.9/100g of water. If a saturated solution of Potassium chloride dissolved in 70g of water at 100°C is cooled to 80°C, Calculate the mass of potassium chloride which will be deposited **(3mks)**

……

……

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……

17. When excess carbon (II) oxide gas was passed over heated lead (II) oxide in a combustion tube, lead(II) oxide was reduced.

a) Write an equation for the reaction which took place **(1mk)**

……

b) What observation was made in the combustion tube when the reaction was complete **(1mk)**

……

……

c) Name another gas which could be used to reduce lead (II) Oxide **(1mk)**

……

18. 8 g of methanol require 178 KJ to vaporize completely. Calculate the heat required to vaporize one mole of methanol completely (C = 12.0, H =1.0, O =16.0) **(2mks)**

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19. Given a sample of concentrated sulphuric acid was left in an open beaker in a room for two days, the volume was found to have increased slightly.

a) What property of concentrate sulphuric acid is shown by the above reaction **(1mk)**

……

b) State one use of concentrated sulphuric acid that depends on the above property **(1mk)**

……

……

c) State another use of sulphuric acid. **(1mk)**

……

……

20. Study the information given in the table below and answer the questions below the table.

BOND	**BOND ENERGY KJ mol^{-1}**
C-H	414
Cl-Cl	244
C-Cl	326
H-Cl	431

Calculate the enthalpy change for the reaction **(3mks)**

$$CH_4 \ (g) + Cl_2 \ (g) \longrightarrow C H_3 Cl \ (g) + HCl \ (g)$$

……

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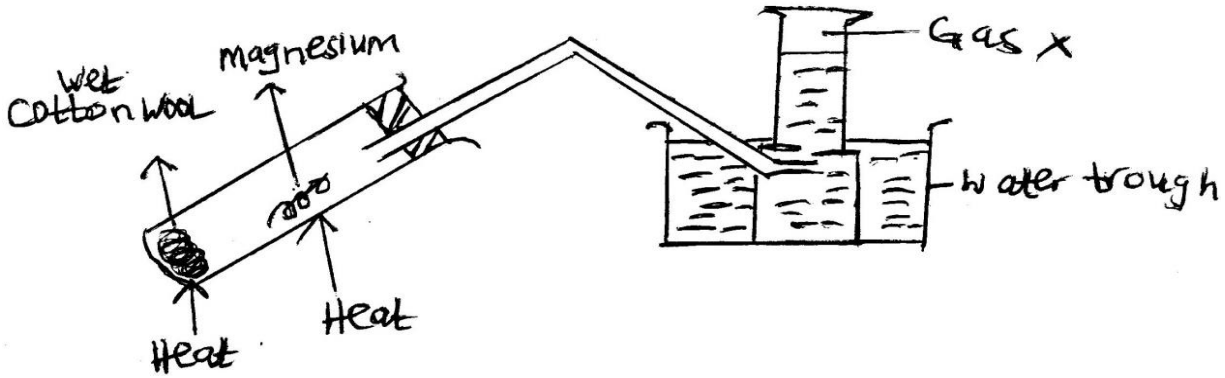
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21. The set up below shows a reaction between magnesium ribbon and steam.



a) Identify gas X **(1mk)**

……

b) Write an equation for the reaction between the magnesium ribbon and steam **(1mk)**

……

c) Name two other metals that react with steam. **(1mk)**

……

……

22. The molecular formula of a hydrocarbon is C_6H_{14}. The hydrocarbon can be converted into two other hydrocarbons as shown below

$$C_6H1_{14} + Cl_2 \xrightarrow{\text{heat}} X + C_3H_8$$

a) What name is given to the above process **(1mk)**

……

b) Draw the possible structure of X **(1mk)**

c) State the observations made if a few drops of bromine water are added to a sample of X **(1mk)**

……

……

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23. The table below shows some properties of some elements in period 3 of the periodic table

ELEMENT	**SODIUM**	**MAGNESIUM**	**ALUMINIUM**
Melting point	97.8	650	660
Atomic radii (nm)	0.152	0.136	0.125

Explain the trend of

a) Melting points from sodium to aluminium **(1 ½ mks)**

……

……

……

b) Atomic size of atoms from sodium to aluminium **(1 ½ mks)**

……

……

……

24. Red hot carbon was found to remove oxygen from the oxides of metals A, B, C but not from the oxide of D. metal C removes oxygen from the oxide of metal A but not from the oxide of metal A but not from the oxide of metal B. Arrange the metals A, B,C, D in increasing order of their reactivity **(2mks)**

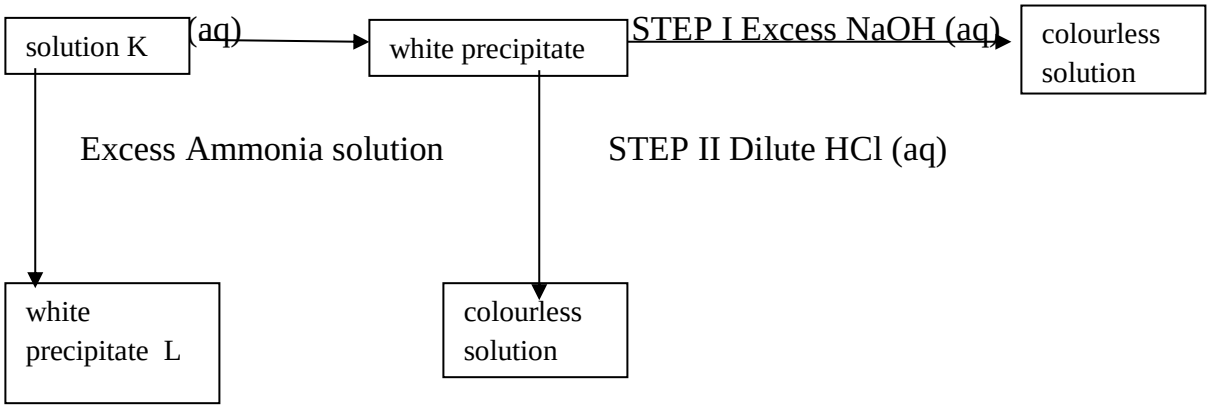
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25. Study the flow chart below and use it to answer the questions that follow.



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a) Write the formula of the metal ion in solution K **(1mk)**

……

b) Name the white precipitate L **(1mk)**

……

c) What property of the white precipitate is illustrated in steps I and II **(1mk)**

……

……

26. 25cm^3 of 0.12m Potassium hydroxide was neutralized by 30.0cm^3 of a solution of a dibasic acid(H_2x) containing 3.15 g per 500cm^3 . Calculate

a) The morality of the acid solution **(2mks)**

……

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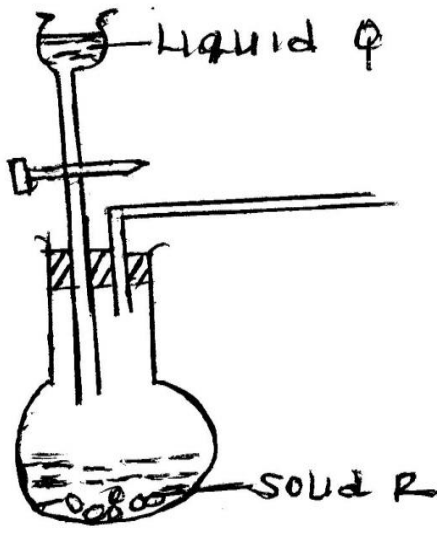
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b) The relative formula mass of the acid **(1mk)**

……

……

27. Oxygen can be prepared in the laboratory using the set up below



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a) Name liquid **Q and solid R**

Q .....(1 mk)

R ..... (1 mk)

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

c) Write an equation to show how oxygen is obtained from liquid Q and solid R **(1mk)**

.....

.....

28. The atomic numbers of element W and X are 14 and 17 respectively. W and X are not the actual symbols of the elements) illustrate the type of bonding present in the compound formed when the two react using dots (.) and crosses (x) **(3mks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

CHEMISTRY

233/2

PAPER 2 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

- *Write your name, admission number, date and school in the spaces provided.*
- *Answer **all** the questions in the spaces provided.*
- *All working **must** be clearly shown where necessary.*
- *Scientific calculators may be used.*

FOR EXAMINERS' USE ONLY

Question	Maximum Score	Student's Score
1	12	
2	10	
3	10	
4	11	
5	10	
6	9	
7	7	
8	11	
TOTAL	80	

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

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1. Study the table below and answer the questions that follow.

Element	**Atomic number**	**Relative atomic mass**	**Melting point (^{0}C)**
Aluminium	13	37.0	
Calcium	20	40.0	850
Carbon		12.0	3730
Hydrogen		1.0	-259
Magnesium	12	24.3	650
Neon	10		-249
Phosphorus	15	31.0	44.2 (white)
Phosphorus	15	31	590 (red)
Sodium		23	

(a) Complete the table by filling in the missing atomic numbers and atomic mass. **(2 marks)**

(b) Write the electron arrangement for the following ions. **(2 marks)**

Ca^{+}

……

P^{3-}

……

(c) What is the melting point of hydrogen in Kelvin? **(1 mark)**

……

……

(d) Which of the allotropes of phosphorous has a higher density? Explain. **(2 marks)**

……

……

……

(e) The mass numbers of three isotopes of magnesium are 24, 25 and 26. What is the mass number of the abundant isotope of magnesium? Explain. **(2 marks)**

……

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(f) Give the formula of the compound formed between calcium and carbon. **(1 mark)**

……

……

……

(g) Explain the difference in the melting points of magnesium and sodium. **(2 marks)**

……

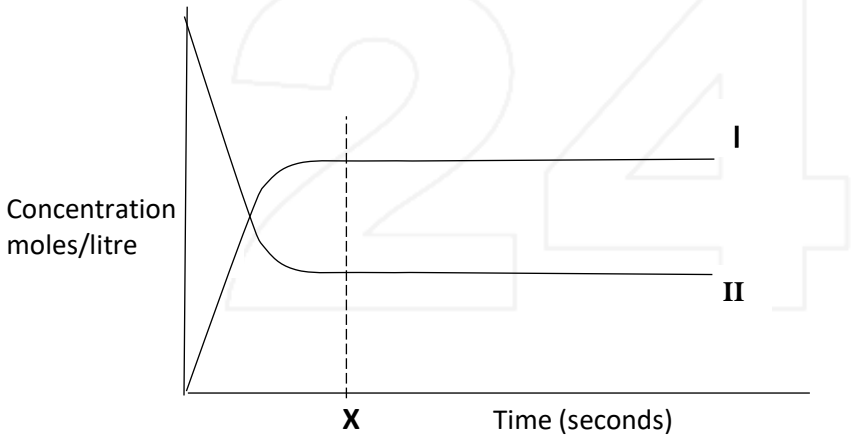
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2. Hydrogen gas can be obtained by reacting carbon (II) oxide and steam as shown below.

$$\rightleftharpoons$$

The curve below was obtained during the process.



(a) Which curve represents the change in the concentration of hydrogen, give a reason. **(2 mks)**

……

……

……

(b) Give a reason for the shapes of curve at point **X**. **(1 mk)**

……

……

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(c) State and explain the effect on equilibrium when concentrated potassium hydroxide solution is added on equilibrium above. **(2 marks)**

……

……

……

(d) Explain the effects of increasing temperature of the system above on the yields of hydrogen. **(2 marks)**

……

……

……

(e) The table below shows the volume of oxygen produced with increase in time during a reaction of 2g Manganese (IV) oxide and $50cm^3$ hydrogen peroxide at 25^0C.

Time sec.	0	10	20	30	40	50	60	70	80
Volume (O_2) cm^3	0	60	90	105	112	116	120	120	120

(i) Calculate the rate of reaction between 20^{th} and 40^{th} second. **(1 mark)**

(ii) Explain why volume of O_2 produced does not exceed $120cm^3$. **(1 mark)**

……

……

……

(iii) Explain the effect of using 4g of manganese (IV) oxide on total volume of oxygen produced. **(1 mark)**

……

……

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3. Use the table below to answer the questions that follow.

Substance	Formula
A	
B	
C	
D	
E	

(a) Explain how one would differentiate between substance **D** and **E** in the laboratory. **(2 marks)**

……

……

……

(b) Write an equation to show the reaction that will take place when substance **A** is heated in presence of concentrated sulphuric VI acid at temperature of 170^0C. **(1 mark)**

……

……

(c) What is the name of the process involved when substance **D** reacts with chlorine? Give the condition required for the process.

Process - …….. **(1 mark)**

Condition -…… **(1 mark)**

(d) Select **two** substances from the table that could be reacted to form a pleasant smelling substance.

(i) Substances - …… **(1 mark)**

(ii) Conditions – **(1 mark)**

……

……

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(e) Substance **C** is subjected to high temperatures and pressure to form a solid substance.

(i) Name the solid substance formed. **(1 mark)**

……

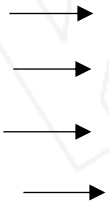
(ii) Explain the effect of using the substance formed above for a long time. **(2 marks)**

……

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4. The standard electrode potentials of metals **J**, **K**, **L** and **M** are as shown below. Use it to answer the questions. (The letters are not the actual chemical symbols).



(i) Select **two** metals whose half cells will yield the highest e.m.f. when connected. **(1 mark)**

……

……

(ii) Write the cell diagram for the cell formed in (i) above. **(1 mark)**

……

……

(iii) Calculate the initial e.m.f of the cell formed. **(1 mark)**

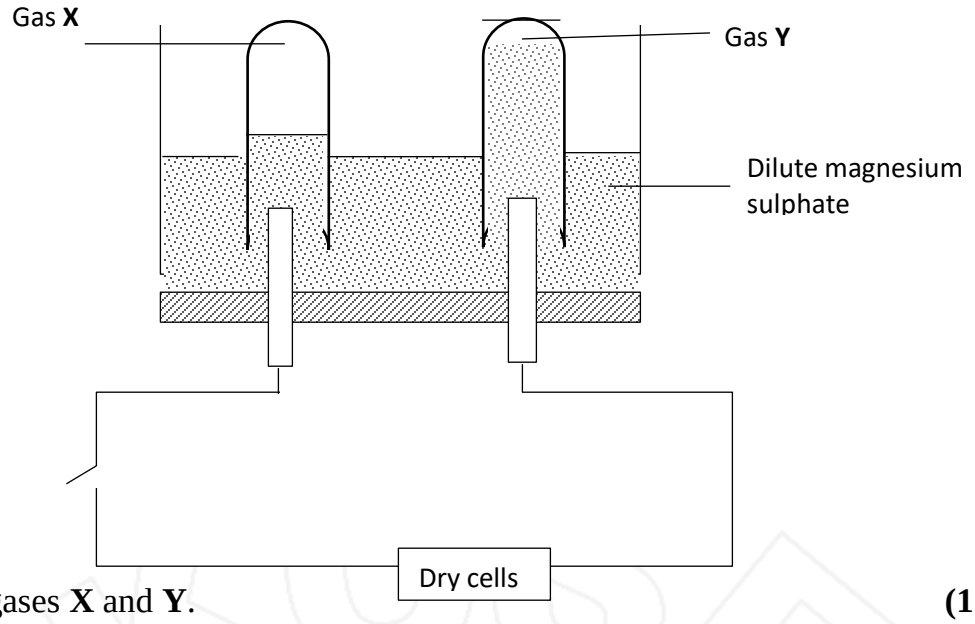
(iv) **State one** use of salt bridge in electrochemical cells. **(1 mark)**

……

……

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(v) The set-up below shows electrolysis of dilute solution of magnesium sulphate.



(i) Identify the gases **X** and **Y**. **(1 mark)**

X - **…….**

Y - **…….**

(ii) On the diagram, label the electrode that is the anode. **(½ mark)**

(iii) A current of 1.5A was passed through the solution for 50 minutes. Calculate the volume of the gas produced at the cathode.

(M.G.V. r.t.p. = 24000cm^3, IF = 96500c). **(3 marks)**

(iv) State the effect of electrolysis of magnesium sulphate on the concentration of the electrolyte.

(½ mark)

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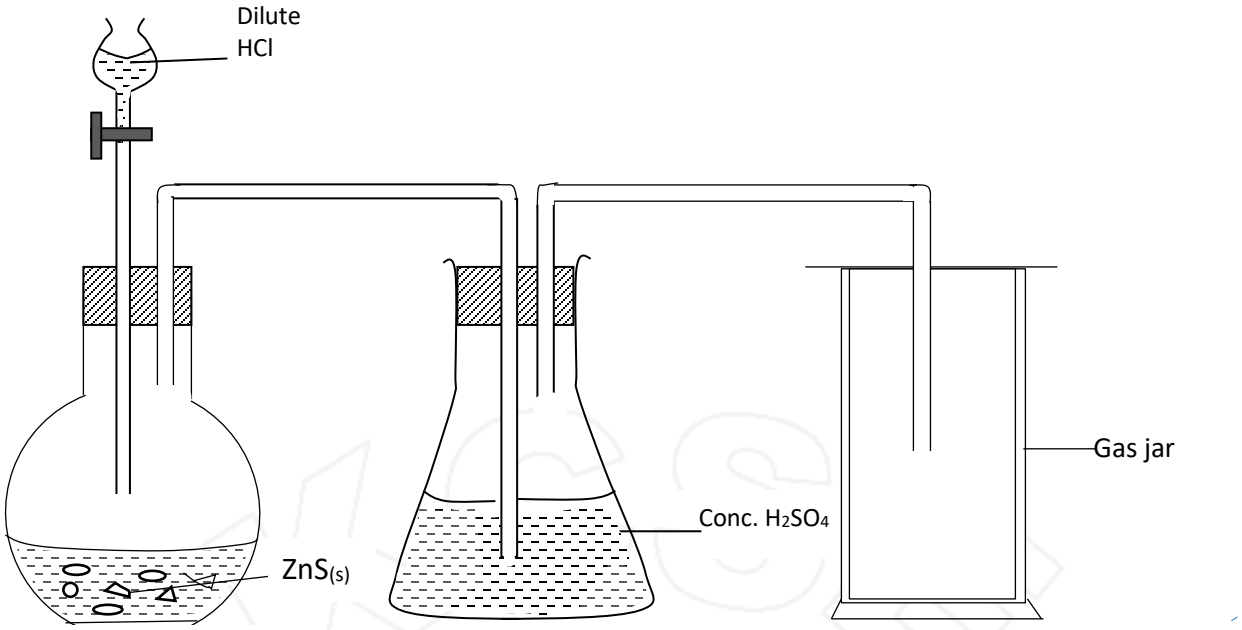
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(v) Give any **one** application of electrolysis. **(1 mark)**

…….

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5. (a) The following set-up was used by a Form 3 student to prepare and collect dry hydrogen sulphide gas. **(3 marks)**



(i) At the end of the experiment, the student realized that no gas was collected. Give a reason. **(1 mark)**

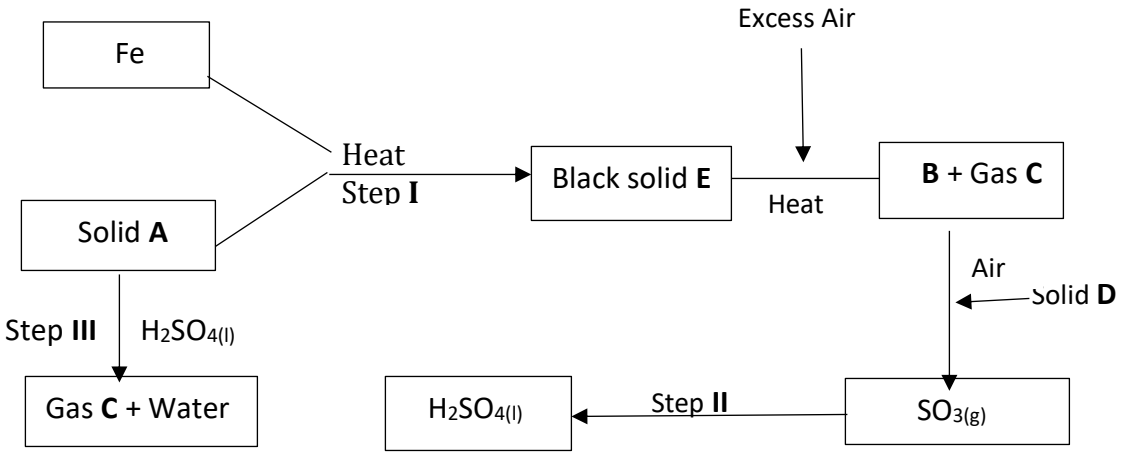
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(ii) Write an equation for the reaction when excess hydrogen sulphide gas is passed through sodium hydroxide solution. **(1 mark)**

……

(b) Study the flow chart below to answer the questions that follow.



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(i) Name; **(3 marks)**

I. Solid **A** ……

II. Solid **D** ……

III. Substance **B** ……

(ii) Write equations for the two consecutive reactions that must take place in step **II** before sulphuric (VI) acid is formed. **(2 marks)**

……

……

(iii) State the property of solid A that enables it to react with H_2SO_4 in step **III**. **(1 mark)**

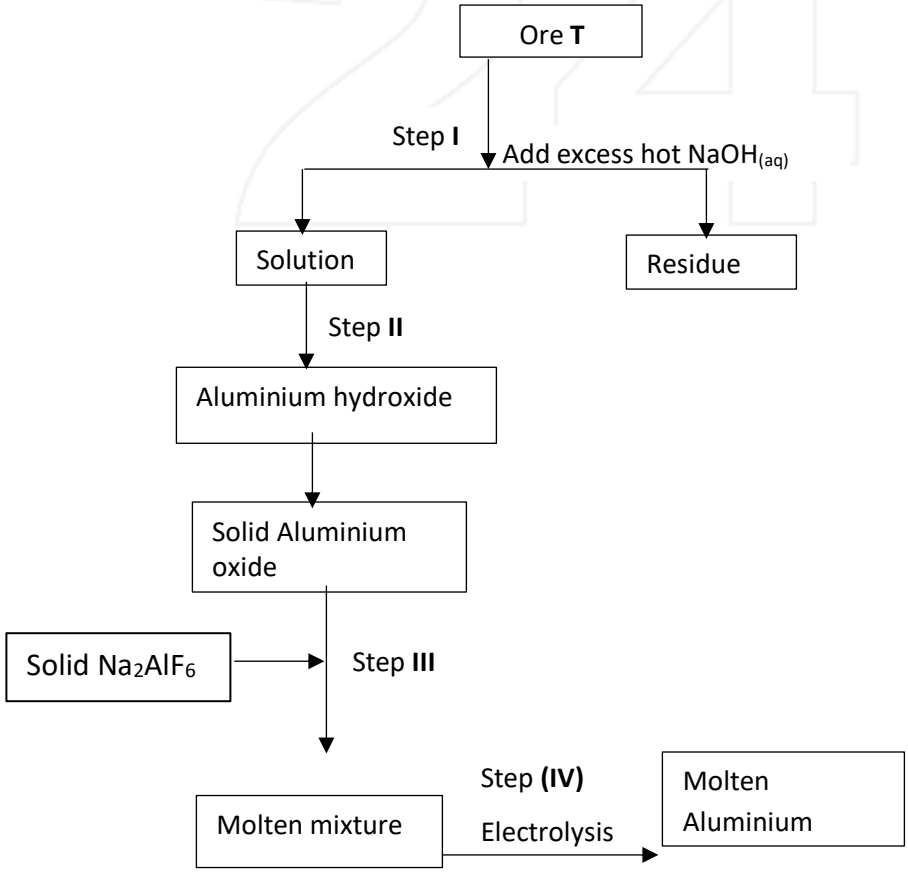
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(iv) State any **two** uses of sulphuric (VI) acid. **(2 marks)**

……

……

6. I. Study the flow chart below and answer questions that follow.



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(a) Name ore **T**. **(1 mark)**

……

(b) Explain why the ore is dissolved in excess $NaOH_{(aq)}$. **(1 mark)**

……

……

(c) Name compound present in:- **(1 mark)**

(i) Solution

……

(ii) Residue

……

(d) Name the process that takes place in step **II**. **(½ mark)**

……

(e) Why are sodium and fluoride ions not discharged in step **IV**? **(½ mark)**

……

……

(f) Write the equation for reaction in step **IV**. **(1 mark)**

……

……

(g) Why should the anode be replaced from time to time? **(1 mark)**

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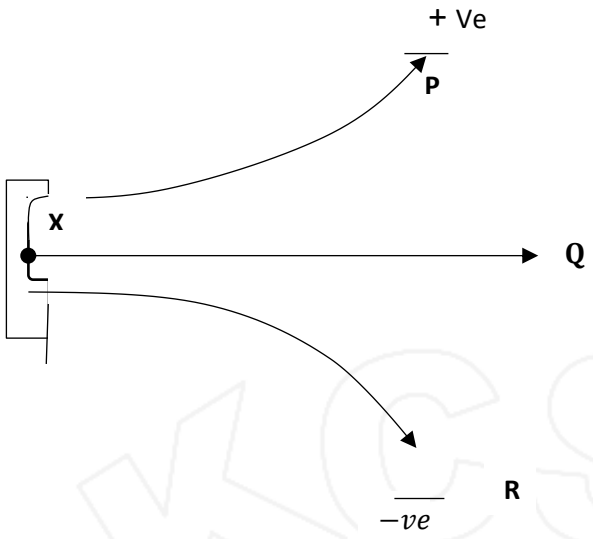
(h) State any **two** uses of aluminium. **(1 mark)**

……

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II. The figure below shows the behavior of emissions by radioactive isotope X. Use it to answer questions that follow.



(a) Explain why isotope **X** emits radiation. **(½ mark)**

……

……

(b) Name radiations **P**, **Q** and **R**. **(1 ½ marks)**

P ……

Q ……

R ……

7. (a) State Hess's law. **(1 mark)**

……

……

(b) Calculate the enthalpy of formation of ethane given that the molar enthalpies of combustion of carbon, hydrogen and ethane are -394kJ, -286kJ and -1560kJ respectively. **(3 marks)**

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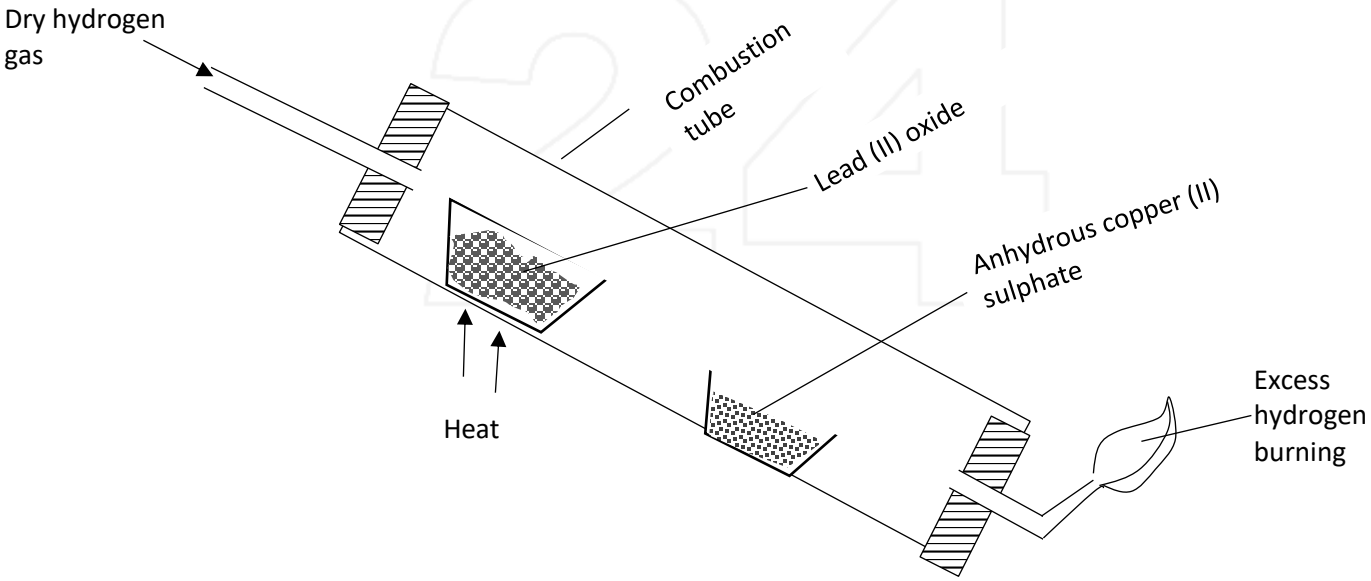
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(c) Calculate the enthalpy change for the relation.

(3 marks)

8. The experiment below was used to investigate the effect of dry hydrogen gas on hot Lead (II) oxide. Use it to answer the questions that follow.



(a) (i)What was observed in the combustion tube at the end of the experiment? **(1 mark)**

……

……

(ii) Why should the tube be slanting? **(1 mark)**

……

……

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(iii) State any **two** precautions to be observed when doing this experiment. **(2 marks)**

……

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(b) (i)If 2.07g of lead (II) oxide was reduced by certain amount of hydrogen gas during experiment. Calculate the mass of hydrogen gas that reduced 2.07g of lead (II) oxide. (Pb = 207, O = 32, H = 1) **(3 marks)**

(ii) Calculate the mass of the residue in the combustion tube. **(2 marks)**

(iii) Calculate the volume of hydrogen gas used at r.t.p. (MGV = 24L) **(2 marks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

CHEMISTRY

233/3

PAPER 3 (PRACTICAL)

TIME: 2¼ HOURS

SCHOOL…… SIGN……

Kenya Certificate of Secondary Education.

CONFIDENTIAL

Each candidate should have the following:

1. *Exactly 5.0g of **solid A** – Oxalic acid*
2. ***Solution B** – 0.07M Acidified potassium Manganate (VII)*
3. *Burette 50ml*
4. *Pipette filler*
5. *Pipette 25ml*
6. *Thermometer (-10-110)^oC*
7. *10cm^3 measuring cylinder*
8. *2 conical flasks*
9. *250ml volumetric flask*
10. *Means of labeling*
11. *1g of **Solid P** – mixture Ammonium sulphate and Lead Carbonate in the ratio of 1:1*
12. *10cm^3 of **Solution Q** – 0.5M Oxalic acid Solution.*
13. *Source of heat.*
14. *Wooden splint.*
15. *Test tube holder.*
16. *Filter paper.*
17. *Filter funnel.*
18. *6 test tubes.*
19. *2 Boiling tubes.*
20. *0.5 cm Mg ribbon.*
21. *PH Chart.*
22. *Universal indicator paper.*
23. *Blue and Red litmus papers*
24. *Distilled water in a wash bottle.*

Accessible to the following.

1. *2M sodium hydroxide solution with dropper*
2. *2M Ammonia solution with dropper*
3. *Freshly prepared Bromine water with dropper*
4. *2M Nitric (v) acid with a dropper*
5. *Acidified potassium manganate (VII) with a dropper*
6. *Lead Nitrate solution with a dropper.*
7. *Acidified Barium Nitrate solution with dropper.*
8. *Means of heating.*
9. *Potassium Iodide solution with dropper.*

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

CHEMISTRY

233/3

PAPER 3 (PRACTICAL)

TIME: 2¼ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES:

- *Write your **name**, **index number** and **school** in the spaces provided above*
- ***Sign** and **write** the date of examination in the spaces above*
- *Answer **ALL** the questions in the spaces provided in the question paper*
- *You are not allowed to start working with apparatus for the first 15 minutes. This time is to enable you to read the question paper and make sure you have all the chemicals and apparatus required;*
- *Mathematical tables and silent electronic calculators may be used*
- *All working must be clearly shown where necessary*

FOR EXAMINER'S USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1	22	
2	11	
3	7	
TOTAL	**40**	

For Marking Schemes - Contact 0746 222 000 / 0742 999 000

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

1. You are provided with;

- **5.0g** of solid A in a boiling tube.
- Solution B, **0.07M** acidified potassium manganate (VII)

You are required to determine;

i) The solubility of solid A at different temperatures.

ii) The number of moles of water of crystallization in solid **A**.

Procedure 1

a) Using a burette, add 4cm^3 of distilled water to solid A in the boiling tube. Heat the mixture while stirring with the thermometer to about 80^{o}C. When all the solid has dissolved, allow the solution to cool while stirring with the thermometer. Note the temperature at which crystals of solid A first appear. Record this temperature in table 1.

b) Using the burette, add 2cm^3 of distilled water to the contents of the boiling tube. Warm the mixture while stirring with the thermometer until all the solid dissolves.

Allow the mixture to cool while stirring. Note and record the temperature at which crystals of solid A first appear.

c) Repeat procedure (b) two more times and record the temperature in **table 1**.

Retain the content of the boiling tube for use in procedure II (i).

d) Complete **table I** by calculating the solubility of solid A at the different temperatures.

(6 marks)

Table I

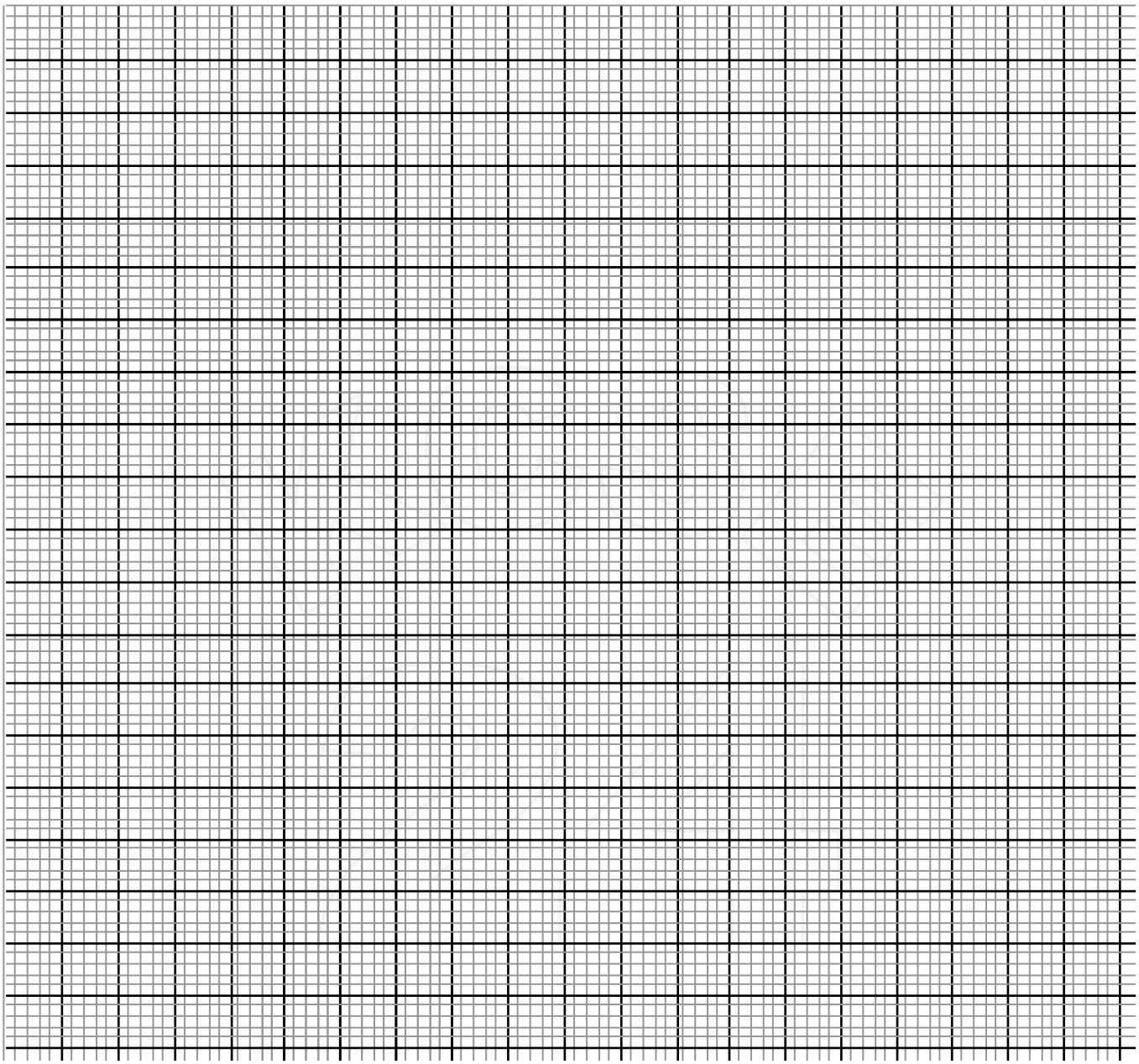
Volume of water in the boiling tube (cm^3)	**Temperature at which crystals of solid A first appear (^{0}C)**	**Solubility of solid A (g/100g of water)**
4		
6		
8		
10		

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(i) On the grid provided, plot a graph of the solubility of solid **A** (vertical axis)against temperature.

(3 marks)



(ii) Using your graph, determine the temperature at which 100g of solid **A** would dissolve in $100cm^3$ of water. **(1 mark)**

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Procedure II

(i) Transfer the contents of the boiling tube into a 250ml volumetric flask. Rinse both the boiling tube and the thermometer with distilled water and add to the volumetric flask.

(ii) Add more distilled water to make up to the mark. Label this **solution A**.

(iii) Fill a burette with **solution B** upto 0.0 mark.

(iv) Using a pipette and a pipette filler place 25.0cm^3 of **solution A** into a conical flask. Warm the mixture to about 65^oC.

(v) Titrate the hot solution A with solution B until **permanent pink colour persist**. Record your readings in table 2. Repeat the titration two more times and complete table 2.

Table 2.

	I	II	III
Final burette reading(cm^3)			
Initial burette reading(cm^3)			
Volume of solution **B** used (cm^3)			

(4 marks)

(i) Calculate the;

(a) Average volume of solution **B** used. **(1 marks)**

(b) Number of moles of potassium manganate (VII) used. **(1 mark)**

(c) Number of moles of A in 25cm^3 of solution A given that 2 moles of Potassium manganate (VII) reacts completely with 5 moles of **A**. **(1 mark)**

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(d) Calculate the concentration of solution A in moles/ litre **(1mark)**

(ii) Relative formula mass of **A**. **(2 marks)**

(iii) The formula of A has the form $H_2C_2O_4$**.** **x**H_2O. Determine the value of **x** in the formula given that the relative mass of carbon is 12 and that of oxygen and hydrogen are 16.0 and 1.0 respectively. **(2 marks)**

2. You are provided with solid **P**. Carry out the tests below. Write your observations and inferences in the spaces provided. Add $10cm^3$ of water to the solid P, shake well and filter the mixture. **Use the filtrate for tests (a)(i) to (iii)**

Retain the residue for <u>test (b)</u>

Observations	**Inferences**
(1 mark)	**(1 mark)**

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(a)i) To about $2cm^3$ of filtrate add $2cm^3$ of NaOH solution, warm the mixture and test any gases produced using blue and red litmus papers.

Observations	Inferences
(1 mark)	**($\frac{1}{2}$ mark)**

ii) To about $2cm^3$ of filtrate add 3drops of Lead(II) nitrate solution

Observations	Inferences
(1 mark)	**(1 mark)**

iii) To about $2cm^3$ of filtrate add 3 drops of acidified Barium nitrate solution.

Observations	Inferences
($\frac{1}{2}$mark)	**($\frac{1}{2}$ mark)**

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(b) To the residue add HNO_3 drop wise until the solid dissolves. Test any gases produced using a burning wooden splint.

Observations	Inferences
(1 mark)	**($^1/_2$ mark)**

i) To about $2cm^3$ of solution add Ammonia solution dropwise until in excess

Observations	Inferences
(1 mark)	(1 mark)

ii) To about $2cm^3$ of solution add NaOH drop wise until in excess.

Observations	Inferences
(1 mark)	**($^1/_2$ mark)**

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iii) To about $2cm^3$ of solution add 3 drops of Potassium iodide solution

Observation (1mk)	**Inferences ($^1/_2$mk)**

3. You are provided with solution **Q**. carry out the following tests and record your observations and inferences in the spaces provided. Divide the solution into 5 portions

(a) To the 1st portion add $2cm^3$ of Distilled water.

Observations	**Inferences**
(½ mark)	**(½ mark)**

(b) To 2nd portion add 2 to 3 drops of acidified potassium Manganate (VII) solution

Observations	**Inferences**
($^1/_2$mk)	**(1mk)**

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(c) To 3rd portion, add 2 to 3 drops of Bromine water

Observations	Inferences
($1/2$mk)	**(1mk)**

(d) To the 4th portion, Add Magnesium ribbon provided.

Observations	Inferences
($1/2$mk)	**($1/2$mk)**

(e) Using the 5th portion, Determine the pH using universal indicator paper provided.

Test	Inferences
($1\ 1/2$mk)	**($1/2$mk)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

AGRICULTURE

443/1

PAPER 1 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

443/1

AGRICULTURE

Paper 1

INSTRUCTIONS TO CANDIDATES

a) *This paper consists of three sections, **A,B** and **C**. Answer all questions in sections A and B and any two questions in section **C.***

b) All answers be written in the spaces provided after every question.

c) Candidates should write their names and index numbers in the spaces provided above.

For Examiner's Use Only

Section	Question	Maximum Score	Candidates Score
A	1 -17	30	
B	18 -21	20	
C		20	
		20	
		90	

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SECTION A (30 Marks)

Answer all questions in this section in the spaces provided.

1 Differentiate between pastoralism and nomadic pastoralism. **(1mk)**

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2. Give four reasons for sub-soiling. **(2mks)**

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3. State four advantages of drip irrigation. **(2mks)**

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4. Give three farming practices that will lead to pollution of water. **(1 ½ mks)**

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5. Outline four factors that influence quality of compost manure. **(2mks)**

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6 (a) what is opportunity cost as used in agricultural economics? **(1mk)**

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(b) State two conditions under which opportunity cost is said to be Zero. **(1mk)**

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7. Differentiate between under sowing and over sowing as used in pasture in production. **(1mk)**

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8. State four disadvantages of broadcasting in crop production. **(2mks)**

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9. Give four objectives of settlement schemes in Kenya soon after independence. **(2mks)**

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10 (a) Name three types of legume trees used as a fodder. **(1 ½ mks)**

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(b) Give four reasons for top-dressing pasture. **(2mks)**

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11. Name three insect pests of cabbages. **(1 ½ mks)**

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12. Give three importance of Agricultural Society of Kenya (A.S.K). **(1 ½ mks)**

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13 (a) State two reasons for carrying out agroforestry on a river – bank. **(2mks)**

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(b) Give four ways in which agroforestry seeds are prepared after collection in readiness for planting. **(2mks)**

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14. Give two reasons for processing agricultural produce. **(1mk)**

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15. State two functions of calcium in the soil. **(1mk)**

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16. List four methods of applying fertilizers in crops. **(2mks)**

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17. Give two reasons for cutting back in pyrethrum production. **(1mk)**

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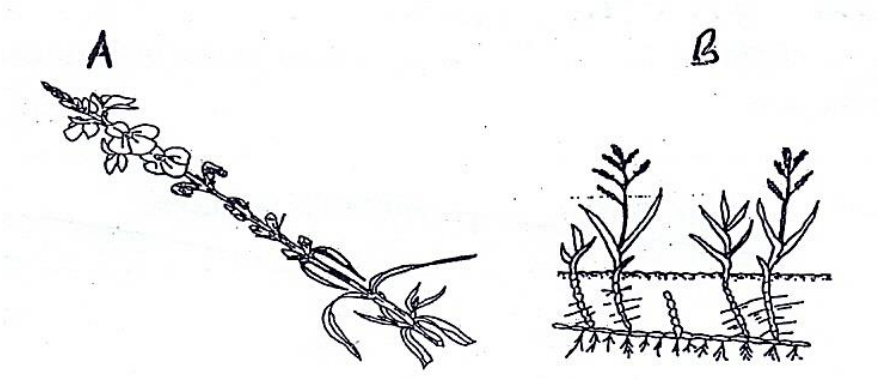
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SECTION B (20 Marks)

Answer all questions in this section in the spaces provided.

18. The diagrams below shows two weeds labeled **A** and **B**. Study them and answer questions that follow.



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(a) Identify the weeds labeled **A** and **B**. **(1mk)**

A……

B……

(b) Give one reason why the weed labeled **A** is referred to as a parasitic weed. **(1mk)**

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(c) Name two crops that the weed illustrated A above commonly attack. **(1mk)**

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(d) Give one reason why it is very difficult to control weed labeled B. **(1mk)**

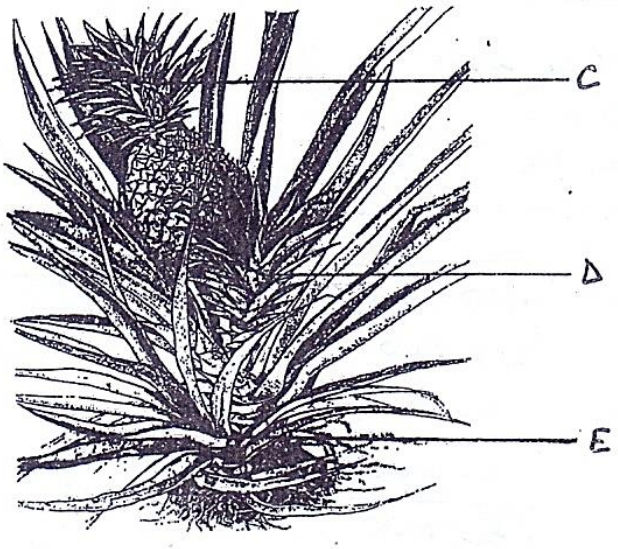
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(e) State one cultural method of controlling weed labeled A. **(1mk)**

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19. The diagrams below illustrate a pineapple plant. Study it carefully and answer the questions that follow.



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(a) Name the parts of propagating pineapple labeled **C,D** and **E.** **(1 ½ mks)**

C……

D……

E……

(b) (i)Which of the vegetative material is more suitable for propagation? **(½mk)**

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

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(c) State three advantages of vegetative propagation. **(1 ½ mks)**

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20. The following information was extracted from Mr. Njengas farm records on 31/12/2018. Use the information to answer the questions that follow.

Description	**Kshs**
Five year bank loan	400,000
One year loan with AFC	200,000
Creditors	45000
Debtors	20000
Land	600000
Buildings	420000
Dairy cattle	180000
Dairy meal	10000
Cash in hand	35000

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(a) Prepare a balance sheet of Mr. Njengas farm. **(5mks)**

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(b) Was Mr. Njengas business solvent or insolvent? **(1mk)**

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21. An experiment was carried out to investigate soil constituents as described below.

(i) A 250 cm^3measuring cylinder was filed with water to 100cm^3 mark.

(ii) A 100cm^3 beaker was filled with garden soil up to brim.

(iii) The soil was emptied into one measuring cylinder and shook well.

(iv) The final volume was 150cm^3.

(a) What was lost when the 100cm^3 garden soil was poured to 100cm^3 of water in the measuring cylinder? **(½mk)**

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(b) Calculate one percentage content of the soil constituents investigated in the experiment. **(2mks)**

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(c) Give two importance of the substance lost above in the soil. **(2mks)**

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SECTION C (40 Marks)

Answer any two questions from this section in the spaces provided.

22 (a) Describe the production of beans under the following sub-headings

(i) Field preparation **(3mks)**

(ii) Planting **(3mks)**

(iii) Field management practices **(5mks)**

b) Outline the procedure of harvesting sugarcane. **(5mks)**

23 (a) Explain five land tenure systems practiced in Kenya. **(10 mks)**

b) Describe ten functions of agricultural marketing in Kenya. **(10 mks)**

24 (a) Explain five farming activities which may encourage soil erosion. **(10 mks)**

b) Explain five factors determining stage and time of harvesting crops. **(10 mks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

AGRICULTURE

443/2

PAPER 2 (THEORY)

TIME: 2 HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES:

- *Write your name and index number in the spaces provided above.*
- *Sign and write the date of examination in the spaces provided above.*
- *This paper consists of three sections A, B and C.*
- *Answer **all** the questions in section A and B.*
- *Answer any **two** questions in section C.*

For Examiner's Use Only:

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A	1-19	30	
B	20-23	20	
C		20	
		20	
	TOTAL SCORE	**90**	

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SECTION A (30 MARKS)

1. Give the meaning of the following terms as used in livestock health**.** **(1mk)**

a) Incubation period

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b) Mortality rate.

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2. State **four** physical characteristics of a dairy cow**.** **(2mks)**

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3. Name the **two** different types of rabbit houses**.** **(1mk)**

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4. What is the role of a footbath in a poultry house?

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5. State **four** care and maintenance practices carried out on a tractor water cooling system. **(2mks)**

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6. State **four** factors that affect the digestibility of a feed**.** **(2mks)**

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7. Give **four** factors that should be considered when siting a beehive on the farm**.** **(2mks)**

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8. Name the complementary tool for each of the tools named below**:** **(2mks)**

a) Trochar ……..

b) Hand drill ……...

c) Elastrator……

d) Bull ring…….

9. State **four** advantages of embryo transplant when breeding livestock**.** **(2mks)**

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10. Give **two** reasons why sows may eat piglets immediately after farrowing**.** **(1mk)**

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11. State **three** reasons for docking in rams.

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12. Name **four** components of a building truss. **(2mks)**

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13. Differentiate between **strategic** and **tactical** treatment as used in the control of endoparasites. **(1mk)**

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14. Name **four** diseases in poultry that are controlled by vaccination. **(2mks)**

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15. List **four** vices that may be developed by birds kept under total confinement. **(2mks)**

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16. Give **three** reasons for steaming up an in-calf heifer.

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17. State **four** factors that influence the respiration rate in livestock**.** **(2mks)**

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18. Name **three** dual purpose breeds of sheep.

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19. Give **two** reasons why proper nutrition is important in livestock health**.** **(1mk)**

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SECTION B (20MARKS)

20. The diagrams below illustrate ectoparasites.Study them and answer the questions that follow.



A



B

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a) Identify the parasites labelled A and B. **(1mk)**

A……

B……

b) Name the livestock affected by the parasite labelled A**.** **(1mk)**

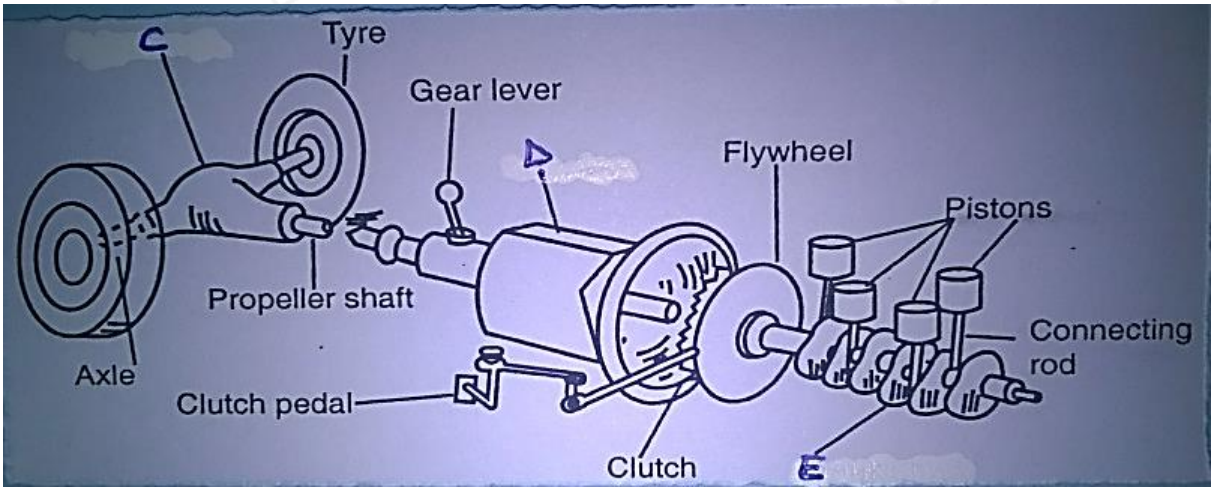
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c) State **two** harmful effects of parasites A and B in livestock production. **(2mks)**

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21. Below is a diagram of the power transmission system of a tractor engine. Study it and answer the questions that follow.



a) Name the parts labelled C, D and E**.** **(3mks)**

C……

D……

E……

b) State the functions of parts C, D and E**.** **(3mks)**

C……

D……

E……

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22. a) Outline the procedure of castrating a male piglet**.** **(4mks)**

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b) At what age should the male piglet be castrated**?** **(1mk)**

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23. Study the tools below and answer the questions that follow.



F



G



H



I

a) Identify the tools labelled F, G, H and I**.** **(2mks)**

F……

G……

H……

I……..

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b) Give the uses of each of the tools labelled H and I**.** **(2mks)**

H……

I……..…

c) Name the part of the animal where tool F is placed when in use**.** **(1mk)**

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SECTION C (40MARKS)

24. a) Explain the management practices that a farmer should carry out to improve milk production in a low dairy herd**.** **(10mks)**

b) Describe the rearing of one day old chicks to 8 weeks. **(10mks)**

25. a) Describe coccidiosis disease under the following sub-headings:

i. Causal organism **(1mk)**

ii. Pre-disposing factors. **(3mks)**

iii. Symptoms. **(4mks)**

iv. Control measures. **(2mks)**

b) Describe **five** parts of a piggery unit. **(10mks)**

26. a) Give **five** functions of water in livestock**.** **(5mks)**

b) State and explain **five** essentials of clean milk production**.** **(10mks)**

c) Give **five** operational differences between a disc pough and a mouldboard plough. **(5mks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

BUSINESS STUDIES

565/1

PAPER 1

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

Instructions to candidates

a) Write your name, class and admission number in the spaces provided above

*b) Answer **all** the questions*

c) All answers should be written in the spaces provided in this paper

d) Check the question paper to ascertain that all questions are printed

e) Answer the questions in English

For Examiners Use Only

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

16	17	18	19	20	21	22	23	24	25

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*Answer **all** the questions*

1. Outline **four** reasons why filing is an important function of an organization**.** **(4marks)**

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2. Koech started a business dealing in ladies clothing ten years ago. His business has gradually been growing and making more profits. Outline ***four*** reasons that may account to this.

(4 marks)

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3. The table below contains descriptions of some goods. Classify them as Consumer, Intermediate, Free goods or Capital goods**.** **(4marks)**

Description	**Classification**
a) Goods used in the production of other goods but does not form part of the finished products	
b) Goods that are in their final state of usage	
c) Goods that are abundant in supply and have no monetary value	
d) Goods that are not ready for use before they are further processed	

4. Outline **four** examples of open trade credit used in home trade. **(4marks)**

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5. Outline ***four*** factors that determine the amount of money held by an individual for speculative motive. **(4 marks)**

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6.Using a (+) for increase, (-) for decrease and (0) for no effect , indicate the effects of the following transactions on Assets , Liabilities, Capital and the balance sheet totals. **(4 marks)**

Description	**Assets**	**Liabilities**	**Capital**	**Balance sheet totals**
a) Bought goods worth shs 5000 on credit				
b) Sold goods worth shs7000 for shs8000 Cash				
c) The Proprietor took goods worth shs 2000 for personal use				
d) The Proprietor donated personal motor vehicle worth shs 500,000 to the business				

7. Outline **four** reasons that may have led to the change in quantities demanded of commodity X in the market as shown in the schedule below. **(4marks)**

Time	**January**	**February**	**March**	**April**
Price (shs)	120	120	120	120
Quantities demanded	6,000	4,000	2,800	2,000

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8.The capital of Kimosop traders on 1st January 2018 was shs. 85,000. During the year, additional investments of shs.50,000 and drawings of shs.60,000 were made. The capital as at 31st Dec 2018 was 65,000. Calculate Kimosop trader's profits or loss**.** **(4 marks)**

9. Highlight four reasons why the government may decide to reduce her shareholding in public corporations to a level below 50%. **(4 marks)**

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10. State how the following components are treated in the measurement of national income.

(4marks)

National income component	**State whether added or subtracted**
a). Transfer Payments	
b). Depreciation	
c). Subsistence farming	
d). Net income from Abroad	

11. State ***four*** differences between ordinary shares and preference shares. **(4 marks)**

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12. State **four** circumstances under which the use of face to face communication may be appropriate. **(4 marks)**

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13. Highlight **four** disadvantages of using sea transport. **(4 marks)**

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14. Outline ***four*** circumstances under which a intermediaries is used in distribution of a firms products. **(4 marks)**

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15. Balance the following ledger accounts and extract a trial balance as at 30th June 2015 (4 marks)

Dr Debtors a/c Cr

2/6/15	Bal b/d	7000	8/6/15	Cash	1500

Dr Capital a/c Cr

			2/6/15	Bal b/d	16000

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Dr	Cash a/c			Cr	Dr	Creditors a/c			Cr
2/6/15	Bal b/d	12,000	5/6/15 Creditors	2000	5/6/15	Cash	2000	2/6/15 Bal b/d	3000
8/6/15	Debtors	1500							

16. State **four** causes of structural unemployment. **(4marks)**

……

……

……

……

17. Highlight ***four*** characteristics of a public warehouse. **(4 marks)**

……

……

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……

18. The following balance sheet belongs to Rivatex Traders.

Rivatex

Balance Sheet

As at 30th June 2019

Fixed Assets	sh		Sh
sh		Capital	120,000
Premises	90,000	Add Profit	30,000
Furniture and Fixtures	70,000	Net Capital	150,000
Land	140,000		
300000		Long Term Liabilities	
Current Assets		5 year bank loan	200,000

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Cash	7000	Short term liabilities	
Stock	15000	Bank overdraft	7,000
Bank	10000		357,000
Pre-paid rent	25000		
	57000		
	357,000		

Required: Calculate

i) Working Capital **(1 mark)**

ii) Borrowed Capital **(1 mark)**

iii) Capital Employed **(1 mark)**

iv) Capital invested **(1 mark)**

19. State **four** levels of inflation. **(4marks)**

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20. The following statements relates to a description of a certain type of tax. Identify the tax and classify it as either direct or indirect tax. **(4 marks)**

	Description	Tax	Classification
(a)	A tax that is imposed on goods that are manufacture and sold within a country.		
(b)	Tax usually levied on profits of companies		
(c)	Tax levied on the value that a business adds to a product.		
(d)	Tax levied on personal wealth that goes beyond a certain limit.		

21. Record the following transactions in the relevant **journals** **(4 marks)**

2019
Feb 2: Bought goods on Credit worth shs6500 from Eldolink suppliers
Feb 8: Sold goods worth shs5000 on credit to Jamal.
Feb 12: Sold stock valued at shs8500 on credit to Musyoka
Feb 16: Bought goods worth shs3000 on credit from Jetlink traders

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22. John and Peter bought a Nissan matatu worth sh. 3,000,000. John paid sh. 2,000,000 and Peter sh. 1,000,000. They insured the matatu for a comprehensive cover for shs 2,500,000. Later the matatu was involved in an accident to a loss of sh 1,500,000. How much were they compensated and give reasons in support of your answer**?** **(4 marks)**

……

……

……

……

23. Outline ***four*** reasons why subsistence production is discouraged in many countries. **(4 mks)**

……

……

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……

24. Highlight four features of an Oligopoly market structure**.** **(4 marks)**

……

……

……

……

25. Describe the following terms of sale as used in international trade. **(4 marks)**

a) LOCO…….

……

b) Free Alongside Ship ……..

……..

c) Cost & Freight……...

……

d) Franco……

……

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

BUSINESS STUDIES

565/2

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO STUDENTS

(a) *This paper consists of **six** questions.*
(b) *Answer any **five** questions.*
(c) *Answers should be written in the spaces provided after question **six.***
(d) *All questions carry equal marks.*

FOR TEACHER'S USE ONLY

Question	Maximum Score	Candidate's Score
	20	
	20	
	20	
	20	
	20	
	Total Score	

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*Answer any **five** questions.*

1. a) Explain **five** ways in which the demographic environment may positively influence business activities. **(10 marks)**

b) Explain **five** advantages that accrue to a firm due to increased production. **(10 marks)**

2. a) Explain **five** reasons for the popularity of using social media in product promotion. **(10 mks)**

b) Explain **five** measures that a country may take to correct a balance of payment deficit. **(10 mks)**

3. a) Explain **five** differences between a cooperative society and a private limited company. **(10 mks)**

b) Outline **five** benefits that a country may derive by preparing a development plan. **(10 marks)**

4. a) The table below shows the Gross Domestic Product (GDP) of a country X in the year 2014 to 2018.

Year	**2014**	**2015**	**2016**	**2017**	**2018**
GDP (Sh in millions**)**	19,201	27,304	33,092	41,067	54,689

Explain **five** factors that may have caused the above trend. **(10 marks)**

b) Explain **five** causes of demand pull inflation**.** **(10marks)**

5. a) Kenya is endowed with some economic resources yet it has failed to exploit them. Outline **five** reasons that account for this. **(10 marks)**

b) On 1st May 2018, Sosiot traders had Sh.25,000 Cash in hand and Bank overdraft of sh 15,000. During the month the following transactions took place.

2018

May 3: Kipkurui ,a debtor settled his account of sh 12000 by cheque of sh 10,000
May 5: Paid rent by cash sh. 5000
May 6: Deposited sh. 2000 into the business bank account from the cash till.
May 8: Received sh 6000 Cash from Kamau, a debtor
May 10: Wanjiku a debtor settled her account of 15,000 by cheque, having been allowed 20% discount.
May 15: Purchased Furniture worth sh 3,000 paying by cheque
May 18: Deposited sh 7,000 into the bank from private sources.
May 23: Received the following amounts in cash from debtors having deducted cash discount of 5%. Kertich sh 7600, Brian sh 4750
May 25: Banked all the available Cash except sh 1000

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Required:

Prepare a dully balanced three column cash book. **(10 marks)**

6. a) By aid of a diagram, explain how price of a commodity is determined by the forces of demand and supply**.** **(10 marks)**

b) The following trial balance was extracted from the books of Rafiki traders as at 31st December 2018.

Rafiki traders

Trial Balance

As at 31st December 2018

	Dr. (Sh.)	**Cr.** (Sh.)
Purchases	420,000	
Sales		855,000
Returns	12,000	20,000
Creditors		100,000
Debtors	63,000	
Bank overdraft		65,000
Motor- vehicle	480,000	
Cash in hand	65,000	
Furniture	190,000	
Carriage inwards	14,000	
Stock on 1st Dec 2018	280,000	
Capital		626,250
Drawings	88,000	
Telephone	6,400	
Insurance	8,200	
Postage	3,850	
Rent	19,600	
Discounts	7,300	4,000
Advertising	12,900	
	1,670,250	**1,670,250**

Additional information;

Stock as at 31st December 2018 amounted to shs.60,000.

Required:

(i) Prepare Rafiki traders trading profit and loss account. **(6 marks)**

(ii) A balance sheet as at 31st December 2018. **(4 marks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

ENGLISH

101/1

PAPER 1

(Functional Skills, Cloze Test and Oral Skills).

TIME: 2 HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

- *Write **your name**, **admission number**, **class** and **index number** in the spaces provided.*
- *Answer **ALL** the questions in this question paper in the spaces provided*
- *Write **legibly** and **neatly in blue ink.*** Your answers must be in the **English language**
- *Do not use **correction pen** or **white out**. Cross your errors only once*

FOR EXAMINER'S USE ONLY.

Question	Maximum Score	Candidate's Score
1.	20.	
2.	10.	
3.	30.	
Total	60	

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1. Imagine you are the secretary of your school's journalism club. Recently you held a meeting whose agenda included revamping the club, starting a school magazine, starting and interclass writing competition to nurture writing talent. Two issues from the previous meeting were raised. During the meeting, the treasurer and another member sent their apologies while two members failed to turn up without any explanation. The club patron was present during the meeting. Write down the minutes you took during the meeting. **(20 marks)**

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2. *Fill in the blanks spaces in the passage below with an appropriate word.* **(10 marks)**

Probably no type of test question **(i)** …….. students so much as an essay question. Usually they fear being **(ii)** …… with questions that demand somewhat lengthy answers **(iii)** …….. intelligible prose. Essay questions **(iv)** ……. are necessary because they test for the type **(v)** …… information that objective questions tend to ignore. **(vi)** …….. essay questions enables the tester to determine a student's ability to put facts into perspective and to draw subjective conclusions. You should **(vii)** …… an essay with the same care as you would any formal written **(viii)** ……. A careful reading of the question is indispensable. You must determine **(ix)** …… what it is the question seeks to discover. It is also good practice to sketch out an **(x)** …… before you begin.

3. Oral Skills **(30 marks)**

(a) *Read the poem below and then answer the questions that follow.*

Do not stand at my grave and weep

Do not stand at my grave and weep,
I am not there, I do not sleep.
I am in a thousand winds that blow,
I am the softly falling snow.
I am the gentle showers of rain,
I am the fields of ripening grain.
I am in the morning hush,
I am in the graceful rush
Of beautiful birds in circling flight,
I am the starshine of the night.
I am in the flowers that bloom,
I am in a quiet room.
I am in the birds that sing,
I am in each lovely thing.
Do not stand at my grave and cry,
I am not there. I do not die

(*by Mary Elizabeth Frye*)

i). Describe the **rhyme scheme** of this poem**.** **(2 marks)**

……

……

……

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ii). Identify any **two** sound patterns used in the poem above. (**2 marks)**

……

……

……

……

iii). How would you perform the last line of the poem**?** **(3 marks)**

……

……

……

……

iv). Which words would you stress in the first line**?** **(2 marks)**

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……

……

(b) Your school is participating in a debate on the motion, "Technology has brought more harm than good." How would your listeners lead to your failure in presentation**?** **(4 marks)**

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……

(c) State whether the following sentences would be said in a falling or raising intonation? **(3 mks)**

i).Will you take tea or coffee today?.....

ii). He who laughs last laughs the longest……..

iii).You don't have to leave immediately, do you? ……...

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(d) Underline the **silent letter** in each of the following words**.** **(3 marks)**

i. parliament **……**

ii. debris **……**

iii. subtle **……**

(e) Complete the list below by providing another word pronounced in the same way as the ones below**.** **(3 marks)**

prays	praise	……..……
bight	byte	…….
sees	seas	……..…….

(f) You recently attended an interview at Upendo Supermarket for the position of an accounts clerk. Unfortunately, you were not successful. What would have led to your failure? **(4 marks)**

……

……

……

……

……

(g) You have just witnessed an accident. A matatu rammed into a stationary tractor. Many passengers have been seriously injured. The driver has requested you to call Kona Mbaya Police station and inform them about the accident.

Complete the following telephone conversation between you and the police officer on duty.

(4 marks)

You:……

……...(1 mark)

Police officer: Yes. This is Kona Mbaya Police Station. Constable Kiraka speaking. Can I help you?

You: Yes, please. There has been a terrible accident.

Police officer: May I know who is calling please?

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You:……

…… (1 mark)

Police officer: Where has the accident taken place?

You: Along Kona Mbaya- Majengo road.

Police officer: What happened?

You:……

……..……..…(1 mark)

Police officer: Really! Are there any casualties?

You:……

……(1 mark)

Police officer: Don't worry; we will be there as soon as possible. Meanwhile call the ambulance and alert Kona Mbaya hospital to be ready for casualties. Thank you **very** much Mr. Tumbo Mali for calling.

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

ENGLISH

101/2

PAPER 2

(Comprehension, Literary Appreciation and Grammar)

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

- *Write your **name, index number and class** in the spaces provided.*
- *Answer **all** the questions in the spaces provided.*
- *Write legibly and neatly.*

FOR EXAMINER'S USE ONLY

Question	Max Score	Student's Score
1	20	
2	25	
3	20	
4	15	
TOTAL SCORE	**80**	

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1. Read the passage below and answer the questions that follow. ***20 marks***

A team of ninety experts has been dispatched this morning to audit the teaching and understanding of the new curriculum in public schools across the country. The Government officials, largely drawn from the Kenya Institute of Curriculum Development, (KICD) will conduct impromptu visits to schools in eighteen counties as they seek to enforce implementation of the Competence-Based Curriculum (CBC).

A detailed document on the monitoring exercise seen by The Standard reveals that during the visits, the experts will sit in classrooms during lessons, hold feedback meetings with teachers and file daily reports on progress of the implementation of the CBC. For the next ten days, the experts – also known as curriculum developers – will demonstrate to the teachers how CBC lessons should be taught in the classroom. The exercise will end on May 3.

KICD Chief Executive Officer Jwan Julius said the process will provide the teachers with real, first-hand experiences on curriculum implementation. Dr. Jwan said the process will also identify opportunities to improve the curriculum designs and how to transfer lessons from field experiences to subsequent designs.

"What is envisioned in the curriculum designs and what is being taught in class should come out clearly. Where there are gaps in lesson delivery, the experts will take the teachers through the process," said Jwan. The Standard established that the curriculum developers had already completed three days orientation on a new monitoring methodology dubbed Do It Yourself.

The experts will now spend the next seven days in the field and later meet for debriefing where feedback will be shared to identify areas for correction and improvement. The development comes as the Kenya National Union of Teachers (Knut) threatened to rally teachers to revert to the old teaching methods under the 8-4-4 system. Knut Secretary General Wilson Sossion described the curriculum implementation process as illegal.

"We shall not teach the CBC way as they are pushing us to do until they address all the gaps."

QUESTIONS

i) Why have the experts been dispatched? **2mks**

……

……

……

ii) What is the main intention of the government officials? **2mks**

……

……

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……

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iii) In point form, summarize how the experts will carry out the exercise during the visits.

4mks

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……

iv) What according to the KICD Chief Executive Officer will the process achieve? **3mks**

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……

v) Why is the Kenya National Union of Teachers opposed to the new program? **2mks**

……

……

……

vi) Paraphrase the following, "What is envisioned in class and what is being taught in class should come out clearly. Where there are gaps in lesson delivery, the experts will take teachers through the process." **2mk**

……

……

……

vii) In view of the KNUT Secretary's remarks, comment on the use of irony. **2mks**

……

……

……

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viii) Give the meaning of the following words and expressions as used in the passage. **3mks**

i) impromptu**……..……**

ii) first-hand experience **…….…….**

iii) revert **……...……**

2. *Read the excerpt below and answer the questions that follow. 25 marks*

"Remember the guy from Grassroots International: short fellow, round of body and outspoken of manner? What was his name? It's on the tip of my tongue."

"You must mean the fire-eater who kept accusing me of looking for answers where I shouldn't even look," Dr. Afolabi said.

"Exactly, that's our man. Yes, I thought he was right on point, Dr. Afolabi. He too was unhappy with the present state."

"Wait, the present state of what?"

"Africa."

"I don't understand."

"No problem: I'll spell it out for you. You see Dr. Afolabi, Africa, in its present state, has two new arrivals: corruption and impunity. The first is a crime the second protects from punishment, the second is another crime the first rewards with kickbacks. That is Africa in its present state. Now can it change?"

"Tell me. Can it?"

"Well, let's ask the Law of Will."

"What?"

'"Unless there is will to change, there will be no change.'

That is the Law of Will. Dr. Afolabi, I was wondering whether you might be interested in an adventure that is being sponsored by AGDA. Oh, I am sorry: make that the Agency for Governance and Development in Africa. Its underlying idea is to mobilise our discontent with Africa, in its present state, into will to change it."

"This little meeting between us is not an accident, then, is it, Mr. Longway?"

"What's an accident, Dr. Afolabi? All events are but consequences of events that precede them. Now, what is this I hear about you serving as advisor at the next summit of Africa's heads of states in Banjul, the Gambia?"

"You are well informed, Mr. Longway," Dr. Afolabi said. He had begun to see the green-eyed man in a different light. "Yes, heads of state have invited me there to give them my views on Way Omega," he added. "You know of Way Omega, No?"

"Yes, I do. So what are they, your views?"

"They are that the summit should go with Way Omega. It will change our style of doing business. Just think: no more military coups or rigged elections, no more civil wars or ethnic clashes. If adopted, what a breath of fresh air Way Omega would be!"

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"Dr. Afolabi, don't confuse what you want to happen with what will. You know Way Omega won't fly, don't you?"

"I see. Do you have an alternative that will fly?"

(a) Explain the circumstances that lead to this meeting. **(4 marks)**

……

……

……

……

……

(b) Explain the relationship between the two new arrivals referred to by Mr. Longway? **(3 marks)**

……

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(c) Identify any two stylistic features evident in this excerpt**.** **(4 marks)**

……

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……

(d) Provide another name for Mr. Longway. **(1 mark)**

……

(e) What is the alternative that Mr. Longway gives? How does this alternative differ from Way Omega **(3 marks)**

……

……

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……

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(f) Using illustrations from the excerpt, outline two character traits of Dr. Afolabi. **(4 marks)**

……

……

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……

……

(g) Provide one major theme evident in this excerpt. **(2 marks)**

……

……

……

(h) Unless there is will to change, there will be no change (Rewrite the sentence beginning: If ...) **(1 mark)**

……

……

(i) Later, after this excerpt, Mr. Longway highlights the role of Dr. Afolabi in AGDA. Describe the roles he has to accomplish for AGDA. What does this reveal about Mr. Longway? **(3 marks)**

……

……

……

……

3. ***Read the narrative below and answer the questions that follow.20 marks***

HOW CIRCUMCISION CAME TO BUKUSULAND

At Mwiala wa Mango, there was a great man-eating snake. The snake usually crawled out of his dwelling place among the hills and roamed about the countryside in search of human beings. The local people did not know what to do to get rid of this menace that claimed more and more victims as days went by. Then, in their greatest hour of need, a savior in the person of Mango came.

Mango of Mwiala had by his first marriage two sons whom he greatly loved. Early one morning the boys set out to graze their father's cattle at the riverside. While the cattle were pushing and fighting

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over the salt lick, the boys settled down to molding calf bulls. They had barely finished making their first two bulls when they heard a tremendous stampede from the salt lick. Cows, bulls, oxen and calves with raised tails came galloping out of the salt lick holes. The boys hastily picked up their *chindare* sticks and made for the nearest anthill in order to see the cause of this pandemonium. And there, below them, was the monster casually looking around. It stared at them hard and its many tongues shot out. With a cry and a leap, the boys ran for their lives but it was too late. Mango lost his loved ones to the murderous monster.

He sharpened and resharpened his *embalu* as tears of bitter sorrow rolled down his cheeks. "I must follow the way my beloved ones took to the ancestors." Day came and Mango started for the hills. The sun was in the centre of the sky when he came to the lonely and forbidding hills. He looked around the cave and newly overturned pebbles showed that the beast was out seeking human flesh. Armed only with *embalu* and a tree stump, he crawled into the cave. At the mouth of the cave, he put the tree stump and started his long unnerving watch.

In the meantime, news of what Mango was set on doing had spread through the neighbourhood. People from far and wide had come to his home and were anxiously waiting for him. The sun slowly crept towards the west. Its gentle rays fell upon his glittering *embalu* and he mumbled, 'It is the light of ghosts already.' Suddenly, he heard the sound of stones and pebbles knocking against each other. His hand muscles stood out like twisted cords as he tightened his grip on the *embalu*. He spat on his palm and adjusted his grip. Raising his *embalu* above his head, he spat upon his chest asking for his ancestors' protection. The cave became dark as the monsters head rested upon the tree stump. The raised hand came down swiftly and to the mark. A spout of blood told the rest of the story. At his feet lay the headless beast.

His *embalu* dripping with blood, he rushed to the nearest rock and gave a piercing cry into the gathering darkness. It was a cry of triumph and those who heard it jumped up for joy. He was carried shoulder high amid singing and dancing.

His heroism was acknowledged by the neighbouring *Barua* tribe, who offered him a beautiful bride. But he had to be circumcised first before he could take his bride. This was the custom of the *Barua*. Thus, Mango became the father of circumcision in Bukusuland.

QUESTIONS

a) Classify the above narrative. **2mks**

……

……

……

b) Describe the character of the following. **4mks**

i) Mango

……

……

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ii) The Barua

……

……

c) How did Mango become the savior of the people? **2mks**

……

……

……

d) Identify the socio-economic activities of the community from which the narrative taken. **2mks**

……

……

……

e) Comment on the following. **2mks**

i) The sun slowly crept towards the west

……

……

ii) It is the light of ghosts already

……

……

f) Explain how suspense is created in this narrative. **2mks**

……

……

……

g) Identify **FOUR** features that show this is an oral narrative. **4mks**

……

……

……

……

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h) What do we learn from this narrative? **2mks**

……

……

……

4. GRAMMAR

a) Use the correct phrasal verb formed from the word given in brackets to complete the sentences below **2mks**

i) The students were told to…….with suggestions on how to improve the performance. (come)

ii) His friends ……during the race. (urge)

b) Rewrite the following sentences as instructed. **2mks**

i) When they entered the field, it started raining. (Begin *Hardly…)*

……

……

ii) She is too fearful to go out at night (Begin *So…that)*

……

……

c) Use the words given in brackets correctly to complete the sentences below. 3mks

i) The choir sang the school anthem so ……. (melody)

ii) The money was meant for our …….at school. (sustain)

iii) The project failed because of serious ……. (manage)

d) Use the correct preposition to fill the blanks in the sentences below **3mks**

i) His composition was amazing ……any standards

ii) The Principal conferred …… the teachers before making a decision.

iii) She fainted ……..hearing the shocking news

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e) Use a suitable phrasal quantifier to fill the blank spaces below. 3mks

i) There is ……of fish in the pond.

ii) He bought …….of toothpaste at the canteen.

iii) Students were told to buy …….printing papers

f) Rewrite the following sentences as instructed. 2mks

i) Jack removed his coat and rushed to the river. (Use a present participle)

……

……

ii) Lynn knew the importance of the exercise. He had been a gymnast. (Use a participle to join into one sentence)

……

……

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

ENGLISH

101/3

PAPER 3

(Creative Composition and Essays Based on Set Texts)

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTION TO STUDENTS:

- *Answer **three** questions only.*
- *Questions **one** and **two** are **compulsory.***
- *In question **three** choose only **one** of the optional texts you have prepared on.*
- *Where a candidate presents work on more than optional text, only the first one to appear will be marked.*
- *Each of your essays must **not** exceed **450** words.*
- *All answers should be written on in the answer booklet provided.*

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QUESTION	MAXIMUM SCORE	STUDENT'S SCORE
1	20	
2	20	
3	20	
TOTAL	60	

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QUESTIONS

1. **Imaginative composition** **(20marks)**

Either

a) Write a composition beginning with the following:

As I handed over the money I had a feeling this was not going to go well

Or

b) Write a composition on the following topic: Ways of eliminating drug abuse among the youth

2. The Compulsory Set Text – The Samaritan by John Lara

Using specific examples from Lara's **The Samaritan,** write a composition to show that one cannot escape from the consequences of their actions. **(20marks)**

3. **The Optional Set Text** **(20 marks)**

Either

(a) **The short story: A Silent and Other Stories**.

Urban life can sometimes be hard. Using examples from Meja Mwangi's An Incident in the Park, write a composition to show the truth of this statement

Or

(b) **Drama: Adipo Sidang, Parliament of Owls**

Bad governance can lead to the downfall of a government. Write an essay to support this statement citing illustrations from Adipo Sidang's play Parliament of Owls.

Or

(c) **An Artist of the Floating world by Kazuo Ishiguro**

War and conflict can have long lasting effects in the life of an individual. Write an essay to bring out the truth in this statement. Use happening in the text an Artist of the Floating World by Kazuo Ishiguro for your illustrations.

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

102/1

KISWAHILI

KARATASI YA 1

INSHA

MUDA: SAA 1¾

JINA……

SHULE…… SAHIHI……

NAMBARI YA USAJILI…… MKONDO……

Cheti cha Kuhitimu Kisomo cha Sekondari (KCSE)

MAAGIZO

a) *Andika jina lako na nambari ya usajili kwenye nafasi ulizoachiwa hapo juu.*
b) *Tia sahihi yako kisha uandike tarehe ya mtihani katika nafasi ulizoachiwa hapo juu.*
c) *Andika insha **mbili**. Insha ya kwanza ni ya **lazima.***
d) *Kisha chagua insha nyingine moja kati ya hizo tatu zilizobakia.*
e) *Kila insha isipungue maneno **400**.*
f) *Kila insha ina alama **20.***
g) *Kila insha lazima iandikwe kwa lugha ya **Kiswahili.***

KWA MATUMIZI YA MTAHINI PEKEE

Swali	Upeo	Alama
1	20	
2	20	
3	20	
4	20	
Jumla	**40**	

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MASWALI

1. Lazima

Wewe ni Mwalimu Mkuu katika Shule ya Upili ya Poromoka ambapo pamekuwa na visa vingi vya utovu wa maadili miongoni mwa wanafunzi. Waandikie wanafunzi wote memo ukiwaonya dhidi ya mambo haya.

2. "Utandaridhi una athari mbaya katika maisha yetu." Jadili.

3. Andika kisa kitakachoafikiana na methali: Bahati ya mwenzio usiilalie mlango wazi.

4. Andika kisa kitakachomalizikia kwa: **...** walijifunga vibwebwe kuwavua wahasiriwa waliokuwa wamefunikwa na vifusi lakini jitihada zao ziliambulia patupu.

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

102/2

KISWAHILI

KARATASI YA 2

LUGHA

MUDA: SAA 2½

JINA……

SHULE…… SAHIHI……

NAMBARI YA USAJILI…… MKONDO……

Cheti cha Kuhitimu Kisomo cha Sekondari (KCSE)

Maagizo

(a) *Andika jina lako na namba yako ya usajili shuleni katika nafasi ulizoachiwa hapo juu.*

(b) *Tia sahihi yako kisha uandike tarehe ya mtihani katika nafasi ulizoachiwa hapo juu.*

(c) *Jibu maswali* ***yote.***

(d) *Majibu yote yaandikwe kwenye nafasi ulizoachiwa katika kijitabu hiki cha maswali.*

(e) *Majibu yote ni* ***lazima*** *yaandikwe kwa lugha ya Kiswahili.*

KWA MATUMIZI YA MTAHINI PEKEE

SWALI	UPEO	ALAMA
1. UFAHAMU	15	
2. MUHTASARI	15	
3. SARUFI	40	
4. ISIMUJAMII	10	
JUMLA	80	

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1. UFAHAMU

Soma taarifa ifuatayo kisha ujibu maswali.

Mbuga ya Ziwa Nakuru, sasa limesafishwa katika mojawapo ya juhudi za kukabiliana na maji taka yanayoingia mbugani. Wasimamizi wa mbuga walitumia huduma za vijana wasiokuwa na ajira kutoka mitaa ya Bondeni, Kivumbini, Lake view Freearea na Flamingo kusafisha mito inayobeba uchafu huo.

Vibarua walizoa jumla ya tani 1.5, na baadaye tani 4.2 idadi inayofikisha zaidi ya tani 6.0 kwa siku mbili mfululizo.Hili linaashiria jinsi kina cha uchafuzi wa mazingira kwenye ziwa Nakuru umeshamiri,na baadhi ya wafanyikazi wanaona litajwe kuwa janga la kitaifa linalokodolea macho mbuga nyingi humu nchini.

Shughuli hiyo ilivutia hisia mseto huku maswali mengi kuliko majibu yakiibuka, endapo KWS ina bajeti ya kung'arisha mbuga za wanyama.

Akizungumza na *Taifa Leo*, mwangalizi wa utalii kutoka kutoka mbuga ya wanyama ya Ziwa Nakuru Bw Sirman Kioko, alisema maji taka yamekuwa yakiingia kwenye mbuga kutokana na miundo msingi duni. Aliongezea kuwa maisha ya wanyama hasa simba, nyati, vifaru,nchui,nviboko na flamingo yalikuwa hatarini,kwa sababu ya maji taka yalikuwa yamebadili mkondo na kupenyeza kwenye mbuga.

Miaka mitano iliyopita mbuga ya Nakuru ilikuwa na idadi kubwa ya ndege aina ya heroe ,lakini sasa wamebakia 200 tu. Hali hii itazidi kuwa mbaya,endapo idara husika haitaweka mikakati ya kutafuta suluhu la kudumu kwa wanyama pori wanaozidi kuangamia. Aidha uchafuzi katika ziwa Nakuru umefanya ndege kuhamia ziwa Bogoria ambapo inaaminika angalau chakula ni tele.

"Tunakubali kuwa gharama ya kusafisha mbuga ni kubwa,lakini pia tunaomba umma kupunguza matumizi ya mifuko ya plastiki inayoziba njia za maji,"alisema.

Pia aliongezea kuwa ni jukumu la mbuga kusafisha mazingira ya wanyama,lakini baraza la mji wa Nakuru pia lina nafasi kubwa ya kuhakikisha makazi ya watu ni safi,kwa kuzoa taka ipasavyo. Anaona kuna utepetevu mkubwa kutoka kwa usimamizi wa mazingira NEMA,wanaostahili kuweka sheria kali za kukabiliana na wale wanaoharibu mazingira.

Aliongezea kuwa baraza la kusimamia huduma za wanyama pori (KWS),halina bajeti ya kusafisha mbuga na ndio sababu waliwaajiri vibarua saba kuendesha shughuli hiyo ya siku tatu. Uchafuzi wa mito inayoingia ziwa Nakuru hutokea msimu wa mvua ambapo maji hufurika na kusomba taka kutoka kwenye makazi ya watu.

Wanyama wanaovutia watalii kama vile Nyati hupata maradhi pindi wanapokunywa maji chafu,yaliyochanganyika na mifuko ya plastiki. Licha ya KWS kumiliki kituo cha kufanyia utafiti aina ya maradhi mbalimbali yanayokabili wanyama bado hawajafanikiwa kwa asilimia kubwa kuyazuia.

Hili linajiri siku moja tu baada ya wakazi wa mtaa wa Bondeni kuandamana barabarani wakilalamikia,ongezeko la kiwango cha takataka kwenye makazi ya watu.

(Imenukuliwa kutoka kwa Gazeti la *Taifa Leo*)

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Maswali

1. Ipe taarifa hii kichwa mwafaka. **(alama 1)**

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2. Eleza sababu zinazofanya Ziwa Nakuru kuchafuka. **(alama 2)**

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3. Ni nini madhara ya kuchafuliwa kwa Ziwa Nakuru? **(alama 4)**

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4. Eleza vizingiti vinavyofanya ziwa hili kuendelea kuchafuliwa. **(alama 2)**

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5. Toa mapendekezo yanayoweza kusaidia kumaliza uchafuzi wa Ziwa Nakuru kulingana na taarifa hii. **(alama 4)**

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6. Eleza maana ya maneno haya kama yalivyotumika katika taarifa. **(alama 2)**

a. Kupenyeza

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b. Utepetevu

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2. MUHTASARI

Soma Makala yafuatayo kisha ujibu maswali.

Mwana wa Adamu ni kiumbe cha ajabu! Ni kiumbe kilichopewa uwezo wa kuhodhi na kumiliki kila kitu; kiumbe kilichopewa akili na maarifa fuvu tele ili kuratibu shughuli na mambo; kiumbe kilichopewa uwezo wa kuwasiliana na kutumia sauti nasibu ili kuwa na urari na muwala; kiumbe kilichopewa uwezo wa kufaidi viumbe wengine kwa njia mbalimbali na jumla jamala; hichi ndicho kiumbe kilichopewa idhini maalum ya kuzaana na kujaza dunia. Huyu ndiye mwana wa mama Hawa ambaye sasa amegeuka ndovu kumla mwanawe.

Kwa sababu ya bongo alizonazo, binadamu ana uwezo wa kutumia teknolojia kwa manufaa yake na ithibati zipo tele. Binadamu ametumia nyambizi kuzuru chini ya bahari; amefika mwezini; amevumbua mangala; amevumbua uyoka; amevumbua tarakilishi na sasa shughuli zake ni za kutandaridhi. Mwenyewe yuasema kuwa dunia yake imekuwa kitongoji katika muumano huu.

Chambacho wavyele , akili nyingi huondoa maarifa. Binadamu amekuwa dubwana linalojenga kushoto na kubomoa kulia na tuna sababu ya kulisoza dubwana hili kidole.

Rabana ndiye msanii asiye mfanowe kwani aliisawiri dunia kwa kila lililo jema kwa siku sita mtawalia na kumpa binadamu mazingira murua. Rabuka akaona yote yalikuwa mema na mazuri ; akamwambia binadamu, ‘’Haya, twende kazi !’’

Viwanda vya binadamu vinatiririsha maji-taka ovyo hadi mitoni, maziwani na baharini na matokeo yamekuwa ni vifo vya viumbe vya majini kama samaki ambavyo ni urithi aliyopewa na muumba. Hakuna kiumbe kinachoweza kustahimili Maisha bila maji safi. Maji yote sasa yametiwa sum na binadamu kwa sababu ya ‘maendeleo’ yake. Joshi kutoka katika viwanda vivyo hivyo nalo limehasiri ukanda wa ozoni ambao sasa umeruhusu jua kutuhasiri kwa joto kali mno. Siku hizi inasemekana kuwa kuna mvua ya asidi inayonyesha katika baadhi ya sehemu za dunia na kuleta mdhara makubwa. Labda hata mabahari yamekasirika kwa sababu hivi majuzi katika kile kilichoitwa ‘tsunami’ bahari lilihamia nchi kavu na kusomba maelfu ya binadamu na kuwameza wazima wazima. Vimbunga navyo vimetokea kwa wingi. Wataalamu wanasema kuwa viwango vya miyeyuko vitazidi kwa sababu ya joto na kiwango cha maji kitazidi pia. Binadamu atatorokea wapi?

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Idadi ya binadamu imezidi hadi kiasi asichoweza kukishughulikia kwa sababu anaijaza kwa sababu anadai kuwa aliruhusiwa kuijaza. Hii ni Imani potovu. Anasahau kuwa alipewa ubongo wa kuwaza na kuwazua kabla ya kufanya chochote. Dhiki, maradhi na ufukara zimehamia kwa binadamu na kumtia kiwewe.

Binadamu amefyeka misitu kwa kutaka makao, mashamba, mbao, makaa, ujenzi wa nyumba na barabara na mahitaji mengine mengi. Wanyama wamefurushwa na wengi kuangamia kwa sababu ya ukosefu wa chakula na wengine kushindwa kuhimili mabadiliko katika mazingira. Chemchemi za maji zimekauka nalo jangwa limeanza kutuzuru kwa kasi inayotisha. kazi ya binadamu imekuwa ya kusukia Kamba motoni. Itambidi aanze kujenga kwa matofali ya barafu.

MASWALI

(a) Jadili jinsi binadamu anaweza kutumia uwezo wake vizuri. **(alama 6)**

Matayarisho

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Jibu

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(b) Ukirejelea kifungu kizima, onyesha jinsi binadamu ametumia nafasi yake vibaya. **(alama 9)**

matayarisho

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Jibu

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3. SARUFI

(a) Linganua kwa namna mbili sauti /e/ na /a/ **(alama 2)**

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(b) Andika neno lenye vipengele vinavyofuata vya kisarufi – kikanushi, ngeli, wakati,kitendwa, mzizi na kiishio. **(alama 2)**

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(c) Tumia kitenzi kishirikishi kipungufu bila kupoteza maana ya sentensi hii. **(alama 2)**

Mwanafunzi mmoja angali analala bwenini

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(d) Andika sentensi katika wakati usiodhihirika ukitumia nomino moja ya jamii. **(alama 2)**

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(e) Tungia sentensi moja ziara na maziara ili kubainisha maana zao**.** **(alama 2)**

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(f) Eleza maana mbili zinazojitokeza katika sentensi hii. **(alama 2)**

Wanakujua huku.

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(g) Sentensi zinazofuata ni za aina gani? **(alama 3)**

(i) Nyamari aliadhibiwa madhali alifika darasani akiwa amechelewa sana.

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(ii) Mimi sijaelewa kamwe somo hili.

……

(iii) Watoto ambao walipotea juzi wamepatikana leo asubuhi

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(h) Andika sentensi inayofuata katika usemi halisi ukianza na kihisishi cha dharau. **(alama 2)**
Mzee Anandwa alishangaa na kusema kuwa kijana huyo alikuwa amekuwa kaida kama Kirongwe.

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(i) Bainisha tofauti na usawa kati ya mofimu na viambishi. **(alama 2)**

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(j) Ainisha vishazi katika sentensi, **Endapo atanialika, nitamtembelea.** **(alama 2)**

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(k) Tambua kiima, aina za shamirisho na chagizo katika sentensi hii. **(alama)**
Kimemletea taabu sana.

Kiima:

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Shamirisho:

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Chagizo:

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(l) Andika umoja wa sentensi inayofuata katika hali yakinifu. **(alama 2)**

Kina mama wasingefika mapema fuoni, wasingewahi mashua.

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(m) Tumia kivumishi cha a- unganifu katika sentensi ili kuleta dhana ya sifa. **(alama 2)**

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(n) Tumia O rejeshi tamati**. Mwanafunzi ambaye hufanikiwa ni yule ambaye hudurusu kwa makini.** **(alama 2)**

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(o) Bainisha matumizi ya **‘ KI’** katika sentensi hii. **(alama 2)**

Seremala akiwasili leo atakuwa akitengeneza kiti cha kitoto chake.

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(p) Pambanua kwa michoro ya matawi sentensi inayofuata. **(alama 3)**

Ikiwa atawasili mapema, atafungua mkutano.

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(q) Onyesha na ueleze matumizi ya viwakifishi vifuatavyo. **(alama 2)**

Kibainishi

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Mkwaju

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(r) Tofautisha matumizi ya 'Ngali' katika tungo hizi. **(alama 2)**

Mama angali mlimani

Otiende angalisoma kwa bidi angaliishi maisha mema.

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(s) Mkwezi hupanda miti …….. hufanya kazi maktabani, mpanzi ……., ……. huendesha gari la moshi na mpagazi ……. **(alama 2)**

4. <u>ISIMUJAMII</u> (ALAMA 10)

… Bwana Spika, ninaomba kufahamishwa kwa nini Waziri wa Biashara ameshindwa kuchukua hatua kukomesha uuzaji wa vileo hatari kwa watoto wa shule.

(a) Fafanua sifa zozote **tano** za sajili inayorejelewa na maneno haya. **(alama 5)**

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(b) Eleza mambo yaliyochangia msambao wa Lugha ya Kiswahili kabla ya kuondoka kwa wakoloni barani. **(alama 5)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

102/3

KISWAHILI

KARATASI YA 3

FASIHI

MUDA: SAA 2½

JINA……

SHULE…… SAHIHI……

NAMBARI YA USAJILI…… MKONDO……

Cheti cha Kuhitimu Kisomo cha Sekondari (KCSE)

MAAGIZO

a) *Jibu maswali manne* ***pekee****.*

b) *Swali la* ***kwanza*** *ni la* ***lazima***

c) *Maswali hayo mengine matatu yachaguliwe kutoka sehemu nne zilizobaki yaani; Riwaya Hadithi fupi,Tamthilia na Ushairi.*

d) *Usijibu maswali* ***mawili*** *kutoka* ***sehemu moja****.*

e) *Majibu yote yaandikwe kwa lugha ya Kiswahili*

KWA MATUMIZI YA MTAHINI PEKEE

Swali	Upeo	Alama
1	20	
	20	
	20	
	20	
	Jumla	

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SEHEMU A: USHAIRI

1.***Soma shairi lifuatalo kisha uyajibu maswali yanayofuata.*** **(alama 20)**

TENDA BILA UZIMBEZIMBE!

Natakadamu kulonga , longa nawe pia longa,
Longalonga ukipinga , pinga ukunguni pinga,
Pingapinga ukipanga , panga ya kutenda panga,
Amali tenda bila uzimbezimbe.

Kazi ukipata tenda, tenda ndugu yangu tenda ,
Tendatenda kwa kupenda , penda kwa khatari penda,
Pendapenda na kupanda , panda nia njema panda,
Amali tenda bila uzimbezimbe.

Vinyago ‘ kiweza chonga, chonga kwa makini chonga,
Chongachonga ukifunga, funga midomoyo funga,
Fungafunga ukichunga , chunga gange yako chunga ,
Amali tenda bila uzimbezimbe.

Wimbo nimtamu imba , imba kwa naghama imba,
Imbaimba ukipamba, pamba kiufundi pamba
Pambapamba ukiamba, amba ya heshima amba,
Amali tenda bila uzimbezimbe.

Uwapo muwashi jenga , jenga nyumba nyingi jenga,
Jengajenga ukienga, enga muwanzoni enga ,
Engaenga ukilenga , lenga ufanisi lenga,
Amali tenda bila uzimbezimbe
Kuni upatapo chanja, chanja kwa furaha chanja,
Chanjachanja ukionja, onja pato lako onja ,
Onjaonja ukivunja, vunja wazo jiwi vunja,
Amali tenda bila uzimbezimbe

Tungo nakoma kutunga, tunga ukiweza tunga ,
Tungatunga ukilinga , linga vina vyake linga,
Lingalinga ukiwanga, wanga mizanize wanga,
Amali tenda bila uzimbezimbe.
(Malenga wa Ghuba, Fred Obondo)

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Maswali

a)Taja na ueleze bahari mbili za shairi hili. **(alama 2)**

b)Eleza umbo la shairi hili **(alama 4)**

c) Kwa kutolea mifano, eleza aina mbili za uhuru wa kishairi katika shairi hili **(alama 2)**

d) Taja kwa kutolea mifano mbinu mbili za lugha katika shairi hili . **(alama 2)**

e)Eleza ujumbe wa shairi hili **(alama 4)**

f) Eleza toni ya shairi **(alama 2)**

g) Andika ubeti wa pili kwa lugha ya nathari **(alama 4)**

h) Eleza maana ya kibwagizo cha shairi hili **(alama 2)**

SEHEMU B – RIWAYA – NGUU ZA JADI – CLARA MOMANYI

2. ‘’Anataka kubakia uongozini ili azidi kuwanyanyasa na kuwapoka haki zenu.’’

i) Eleza mkutadha wa dondoo hili **(alama 4)**

ii) Eleza sifa mbili za mhusika msemaji **(alama 2)**

iii) Eleza umuhimu wa mrejelewa katika kujenga ploti ya hadithi hii **(alama 2)**

iv) Kwa kurejelea hadithi hii , jadili mbinu alizotumia mrejelewa kuendelea kubaki mamlakani **(alama 10)**

au

3.Kwa kutoa idhibati, jadili ufaafu wa anwani Nguu za jadi **(alama.20)**

SEHEMU YA C – TAMTHILIA - BEMBEA YA MAISHA - TIMOTHY AREGE

4.’’Kumbe watoto hawa tuliowadharau walikuwa nyota ya jaha.Sasa kijiji kizima kina mwanga .’’

i)Thibitisha namna watoto hawa wamekuwa mwanga kwa kijiji hiki **(alama 10)**

ii) Eleza umuhimu wa msemaji **(alama 4)**

iii) Jadili namna mwandishi ametumia mbinu ya taswira kujenga maudhui katika tamthilia ya bembea ya maisha . **(alama 6)**

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D . HADITHI FUPI – MAPAMBAZUKO YA MACHWEO

5.a) Sasa mbona wamkaribisha humu mwako nyumbani kila anapobisha ? anapokukebehi na kututafishi hapa mbona unamvumilia ? Hana shukrani yule ! Mwepuke na ujishughulishe na yako,…….. mbona hunielewi ? ……..

i)Eleza mkutadha wa dondoo hili . **(al.4)**

ii)Changanua mbinu za kimtindo katika dondoo hili . **(al.4)**

b)i) Eleza toni inayojitokeza katika dondoo hili **(al.2)**

iii)Dondoo hili linaonyesha migogoro katika jamii . Toa mifano mitatu ya migogoro inayojitokeza . **(al.6)**

iv)Onyesha namna msemaji anachangia kujenga ploti katika hadithi hii. **(al.4)**

au

c)Kwa kurejelea hidithi zifuatazo , jadili jinsi waandishi wamemsawiri/ wamemchora mwanamke . **(al.20)**

i) Sabina

ii) Nipe nafasi .

E. FASIHI SIMULIZI

6.a) Usiwe na pupa mwanangu , Pupa haifikishi mtu popote. Badala yake huharibu , sikiliza mwanangu . Wazazi wako walipoana, walikaa sana bila kupata mtoto . Hakuna daktari ambaye hakujaribu kutegua kitendawili cha wao kupata mtoto. Mwishowe babako akataka kumpa mamako talaka . Wazee nyumbani walimhimiza aoe tena . Lakini mimi nilimshauri asimtupe mkewe . Alinisikia maana tumekuwa marafiki wa jadi . Mamako akapatwa na mughma mkubwa . Hakujua aokote wapi mtoto.

i) Tambua kipera cha maelezo haya **(al.2)**

ii) Eleza sifa mbili za kipera hiki **(al.4)**

iii) Jadili majukumu manne ya kipera hiki **(al.4)**

b)i) Taja na ueleze sifa mbili kuu za mtambaji bora wa fasihi simulizi **(al.4)**

ii) Onyesha baadhi ya matatizo yanayokumba utafiti na uhifadhi wa fasihi simulizi **(al.6**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

CHRISTIAN RELIGIOUS EDUCATION

313/1

PAPER 1

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

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

b) *Write the date of examination and sign in the spaces provided above.*

c) *This paper consists of **six** questions.*

d) *Answer any **five** questions in the answer booklet provided.*

FOR EXAMINER'S USE ONLY

Question	1	2	3	4	5	6	TOTAL SCORE
Candidates Score							

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*Answer any **five** questions*

1. (a) Explain **seven** reasons why the Bible is considered as a word of God. **(7 marks)**

(b) State **seven** effects of translating the Bible into African languages. **(7 marks)**

(c) Identify **six** ways in which the Bible is misused in Kenya. **(6 marks)**

2. (a) Describe the background to the call of Abraham. **(8 marks)**

(b) Explain **six** importance of God's covenant with Abraham. **(6 marks)**

(c) Give six ways in which Christians show their faith in God. **(6 marks)**

3. (a) Explain **seven** evidences showing David as an ancestor of Jesus Christ 2 Samuel 7 verse 1 – 2. **(7 marks)**

(b) Identify **seven** ways in which King Jeroboam contributed to religious schism between Judah and Israel 1 Kings 12 verse 25 – 33 **(7 marks)**

(c) State **six** lessons Christians learn from the failures of King Saul. **(6 marks)**

4. (a) Explain **six** categories of true Prophets in the Old Testament. **(6 marks)**

(b) Describe the teaching of Amos on Israel's election. **(6 marks)**

(c) Give **eight** factors that hinder Christian from practicing their faith in God. **(8 marks)**

5. (a) Describe the political background to Nehemiah. **(7 marks)**

(b) Outline **seven** problems that Nehemiah Encountered when rebuilding the wall of Jerusalem. **(7 marks)**

(c) Identify **six** problems that Christian leaders in Kenya face in their work today. **(6 marks)**

6. (a) Explain the significance of rituals associated with death in Traditional African communities. **(8 marks)**

(b) Identify **five** changes that have taken place in traditional African understanding of widows and orphans? **(5 marks)**

(c) Explain **seven** African Moral Values that are applicable to Christians today. **(7 marks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

CHRISTIAN RELIGIOUS EDUCATION

313/2

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… **SIGN**……

INDEX NO…… **ADM NO**……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

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

b) *Write the date of examination and sign in the spaces provided above.*

c) *This paper consists of **six** questions.*

d) *Answer any **five** questions in the answer booklet provided.*

FOR EXAMINER'S USE ONLY

Question	1	2	3	4	5	6	TOTAL SCORE
Candidates Score							

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*Answer any **five** questions*

1. (a) Outline **six** prophecies of Jeremiah about the Messiah. (Jeremiah 23: 5 – 6) **(6 marks)**

(b)With reference to Luke 1:16 – 17, state the mission of John the Baptist from the message of angel Gabriel to Zachariah. **(8 marks)**

(c) State **six** lessons Christians learn from the role of John the Baptist? **(6 marks)**

2. (a) Describe the incident of the healing of Centurion's servant. (Luke 7:1 – 10). **(7 marks)**

(b) Give **six** explanations why Jesus hid his identity. (Luke 9:18 – 17). **(6 marks)**

(c) Identity **seven** leadership qualities demonstrated by the centurion whose servant was healed. **(7 marks)**

3. (a) Identify **six** privileges that the disciples of Jesus enjoyed. **(6 marks)**

(b) Outline Jesus' teaching on watchfulness and readiness. (Luke 12:35-48) **(8 marks)**

(c)Give six ways in which Christians should be watchful and ready for the second coming of Christ. **(6 marks)**

4. (a) Relate the message of Peter on the day of Pentecost. (Acts 2:1-40) **(8 marks)**

(b) Explain the criteria for discerning the gifts of the Holy Spirit in the New Testament. **(7 marks)**

(c) How are the gifts of the Holy Spirit manifested in the church today? **(5 marks)**

5. (a) Outline **six** Christian teachings on marriage. **(6 marks)**

(b) Give **six** reasons why people are choosing to remain unmarried in Kenya today. **(6 marks)**

(c) Explain **eight** problems related to family life today. **(8 marks)**

6. (a) Give **seven** Christian teachings on wealth. **(7 marks)**

(b) Outline Christian view on euthanasia. **(7 marks)**

(c) Give **six** reasons why corruption is widespread in Kenya today. **(6 marks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

HISTORY AND GOVERNMENT

311/1

PAPER 1

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

- *This paper consists of three sections A,B and C*
- *Answer **All** questions in section A, **three** questions in section B and **two** Questions in section C*
- *Answer to all question must be written in the answer booklet provided*
- *Candidate should answer the questions in English*

FOR EXAMINER'S USE ONLY

SECTION A	SECTION B				SECTION C			
1-17	18	19	20	21	22	23	24	

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SECTION A: (25marks)

Answer all the questions in this section

1. Identify **one** period in history **(1 mark)**

2. Identify any **one** type of government that existed in Kenya during the pre-colonial period. **(1 mark)**

3. Identify one cultural practice which was introduced by the Cushites to the Bantu communities in Kenya. **(1 mark)**

4. Give **two** reasons why the Portuguese attempt to introduce Christianity to the coastal people failed between 1500-1700 AD. **(2 marks)**

5. Identify **one** person who qualifies to be Kenyan citizen by birth. **(1 mark)**

6. State **two** constitutional amendments made in the Kenya constitution in 1991. **(2 marks)**

7. Identify **one** characteristic of Human Rights. **(1 mark)**

8. Give **two** reasons that made the British to use direct rule in administering some parts of Kenya. **(2 marks)**

9. State the first African nationalist newspaper that published African grievances in the 1920s. **(1 mark)**

10. Give the **main** objective of political parties which were formed in Kenya after 1945. **(1 mark)**

11. State **one** grievance raised by the Settlers in Kenya that was addressed by the Devonshire White Paper 1923. **(1 mark)**

12. State **two** roles of Daniel arap Moi in Education development in Kenya between 1979 and 2002. **(2 marks)**

13. Give **two** sources of electoral regulations in Kenya. **(2 marks)**

14. Identify **two** functions of the National Intelligence Service (NIS) in Kenya. **(2 marks)**

15. Name the education commission that recommended introduction of a totally integrated quality education and training in Kenya. **(1 mark)**

16. State **two** principles of the Devolved Government in Kenya. **(2 marks)**

17. State **two** functions of the controller of budget in Kenya. **(2 marks)**

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SECTION B (45 MARKS)

Answer any three questions from this section

18. (a) Identify **five** results of the migration and settlement of the Cushites into Kenya during the pre-colonial period **(5 marks)**

(b) Describe the political organization of the Mijikenda during the 19th century. **(10 marks)**

19.(a) State **five** written evidence to show that there was contact between the East African coast and the outside world. **(5 marks)**

(b) Explain **five** social impact of the Indian Ocean Trade on the people of East African Coast. **(10 marks)**

20. (a) Identify **five** factors for the rise of Independent Churches in Kenya during the colonial period. **(5 marks)**

(b) Explain **five** roles of Professor Wangari Mathai in environmental conservation. **(10 mks)**

21.(a) State **five** roles of National Philosophies on economic development. **(5 marks)**

(b) Explain **five** challenges facing the health sector in Kenya. **(10 marks)**

SECTION C (30 MARKS)

Answer any two questions from this section

22.(a) Identify **three** rights of the youth in Kenya. **(3 marks)**

(b) Explain **six** political responsibilities of a Kenyan citizen. **(12 marks)**

23. (a) State **three** functions of the Cabinet in Kenya. **(3 marks)**

(b) Explain **six** circumstances that can make a member of parliament lose his or her seat. **(12 marks)**

24. (a) Identify **three** relationships between the County and the National Government in Kenya. **(3 marks)**

(b) Explain **six** challenges faced by the National Government in revenue collection **(10 mks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

HISTORY AND GOVERNMENT

311/2

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

- *This paper consists of three sections A,B and C*
- *Answer **All** questions in section A, **three** questions in section B and **two** Questions in section C*
- *Answer to all question must be written in the answer booklet provided*
- *Candidate should answer the questions in English*

FOR EXAMINER'S USE ONLY

SECTION A	SECTION B				SECTION C			
1-17	18	19	20	21	22	23	24	

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SECTION A: (25marks)

Answer all the questions in this section

1. Give the meaning of Anthropology. **(1mk)**

2. Identify one archaeological site in Tanzania. **(1mk)**

3. Name **two** inventions that promoted the development of Early Agriculture in Egypt. **(2mks)**

4. State two negative impacts of the Trans-Saharan trade. **(2mks)**

5. Give the meaning of telecommunication. **(1mk)**

6. Identify **two** reasons why the industrial revolution intensified the Scramble for colonies in Africa. **(2mks)**

7. State the main reason for the growth of the ancient city of Meroe. **(1mk)**

8. Name **two** officials who assisted the Shona emperor to administer the Kingdom. **(2mks)**

9. Identify one African country that was colonized by Italy. **(1mk)**

10. Give **one** reason why the Africans in Tanganyika were against the use of Akidas by the German colonial administration. **(1mk)**

11. State **two** political benefits enjoyed by assimilated Africans in Senegal. **(2mks)**

12. Give the **main** reason for the failure of the League of Nations in Preserving world peace. **(1mk)**

13. State **one** function of the United Nations International court of Justice. **(1mk)**

14. State **two** social achievements of the common wealth. **(2mks)**

15. Give **one** function of ECOWAS council of ministers. **(1mk)**

16.Identify two political changes introduced by Mobutu Sese Seko which led to dictatorship in Democratic Republic of Congo. **(2mks)**

17. Give **two** qualifications for election to the council of states in India. **(2mks)**

SECTION B (45 MARKS)

Answer any three questions.

18. (a) State **three** limitations of electronic sources of information on history and government. **(3mks)**

(b) Explain **six** reasons why man lived in groups during the Stone Age Period. **(12mks)**

19. (a) Identify **three** disadvantages of the open field system of farming in Britain. **(3mks)**

(b) Discuss **six** remedies that should be put in place by third world countries to prevent food shortage. **(12mks)**

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20. **(a**) State **three** uses of canals. **(3mks)**

(b) Describe **six** factors that promoted industrialization in South Africa. **(12mks)**

21. **(a)**Give **three** social factors that led to the scramble and partition of Africa. **(3mks)**

(b)Explain **six** characteristics of direct rule in Zimbabwe. **(12mks)**

SECTION C: (30 MARKS)

Answer any two questions.

22. **(a)**Give **five** factors that led to the growth of Asante Kingdom. **(5mks)**

(b)Discuss **five** functions of the Lukiiko among the Buganda Kingdom. **(10mks)**

23. **(**a)Identify **five** roles played by Kwame Nkrumah in the Liberation of Africa. **(10mks)**

(b)Explain **five** political challenges faced by Tanzania since independence. **(10mks)**

24. (a)Explain **five** roles of the state governments in U.S.A. **(5mks)**

(b)Explain **five** factors that limit the supremacy of parliament in Britain. **(10mks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

GEOGRAPHY

312/1

PAPER 1

TIME: 2¾ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES.

(a) Write your name, class and admission number in the spaces provided above.
(b) Sign and write the date of the examination in the spaces provided above.
*(c) This paper has **two** sections: **A** and **B**.*
*(d) Answer **all** the questions in sections **A**.*
*(e) Answer question **6** and any other **two** questions from Section **B**.*

FOR EXAMINER'S USE ONLY

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

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SECTION A

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

1. Describe the formation of planet earth according to the passing star theory. **(5 marks)**

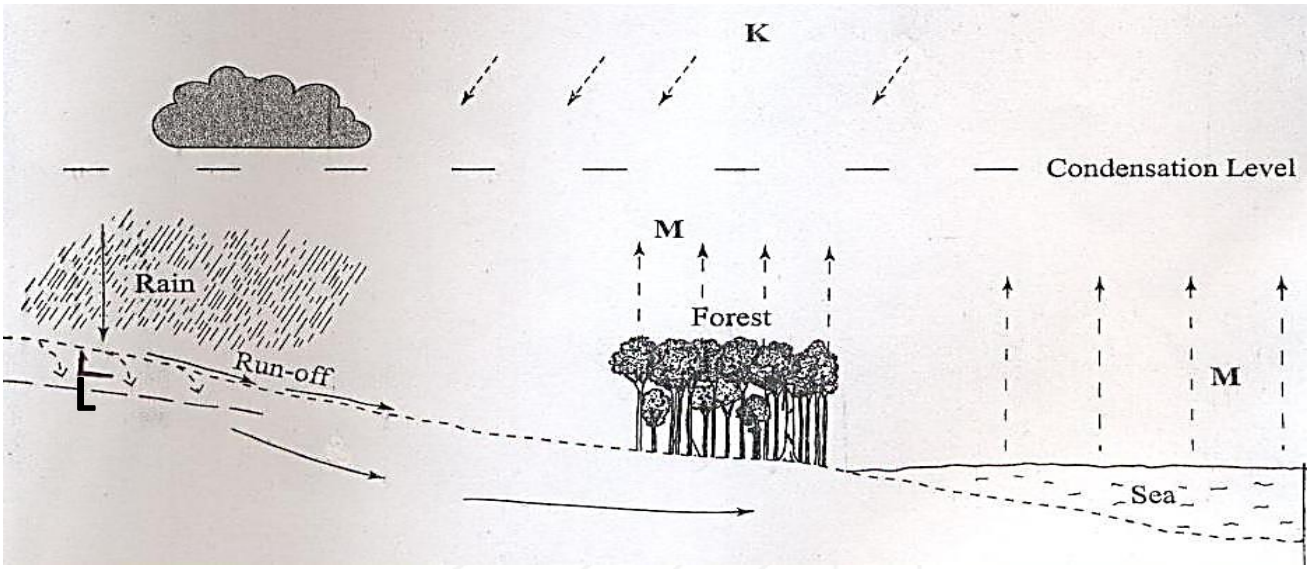
2. (a) Give **two** examples of sedimentary rocks. **(2 marks)**

(b) State **three** characteristics of sedimentary rocks. **(3 marks)**

3. (a) Differentiate between weathering and mass wasting. **(2 marks)**

(b) State **three** causes of landslides. **(3 marks)**

4. (a) The diagram below shows the hydrological cycle. Study and use it to answer the question that follows.



(a) Identify the processes marked **K** and **L**. **(2 marks)**

(b) State **three** characteristics of a flood plain. **(3 marks)**

5. (a) State **two** reasons why wind erosion is dominant in arid areas. **(2 marks)**

(b) Describe how a Bajada is formed. **(3 marks)**

SECTION B

*Answer question **6** and any other **TWO** questions from this section.*

6) Study the map of Mumias 1:50,000 (Sheet 101/2) provided and answer the following questions.

(a) (i) Identify two types of scales that have been used in the map extract. **(2 marks)**

(ii) What was the magnetic declination of Mumias as at January 1965? **(2mks)**

(iii) Name three districts covered by the map of Mumias. **(2mks)**

(iv)Measure the length of the dry weather road from the junction at grid reference 6028 up to the bridge at grid reference 6434. Give your answer in KM (**2mks)**

(b) (i) Reduce by two, the area to the East of Easting 50 and enclosed by Northing 30 to 40.

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(2 marks)

On it mark and name;

- River Nzoia **(1mark)**
- All weather road loose surface **(1mark)**
- District boundary **(1mark)**
- Seasonal swamp **(1mark)**

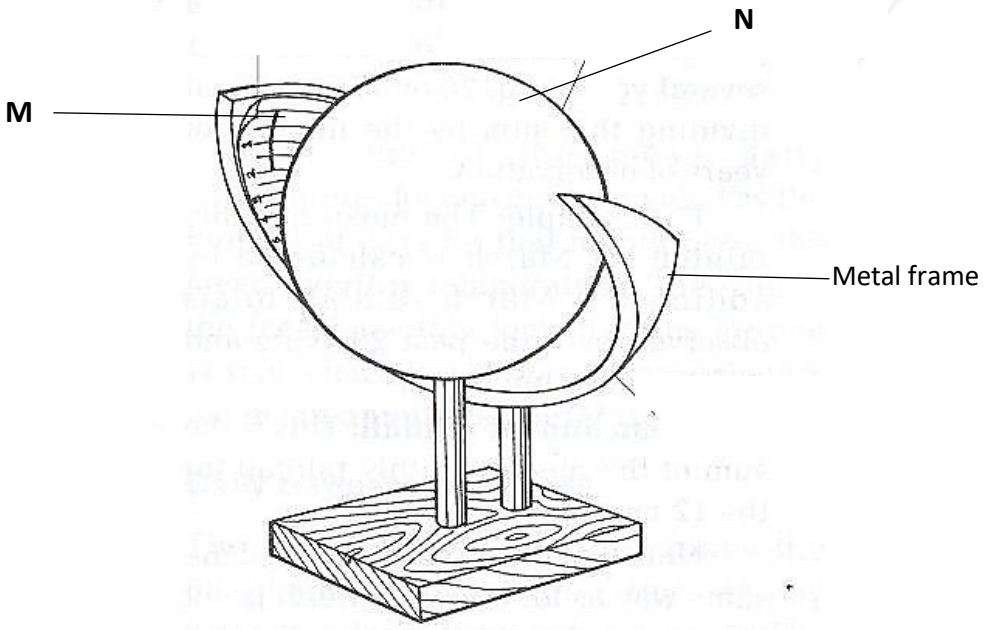
(ii) Calculate the scale of the reduced area **(2marks)**

(c) Describe the drainage of the area covered by the map. **(5 marks)**

(d) Citing evidence from the map, identify two economic activities carried out in the area covered by the map. **(4marks)**

7. (a) Name **two** instruments kept in a Stevenson screen. **(2 marks)**

(b) The diagram below shows a weather measuring instrument. Use it to answer the questions below.



(i) Name the parts marked **M** and **N**. **(2 marks)**

(ii) Describe how the instrument works. **(4 marks)**

(c) The table below shows climatic figure for station **Q**. Use it to answer the questions thatfollow.

Months	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Temp in ^{0}C	30	31	31	29	27	27	28	29	28	28	27	30
Rainfall in mm	257	246	231	234	207	201	218	227	234	240	235	230

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(i) Calculate the annual range of temperature for station **Q**. **(2 marks)**

(ii) Give **four** characteristics of climate for station **Q**. **(4 marks)**

(d) With the aid of a well-labelled diagram, describe the formation of cyclonic rainfall. **(6 marks)**

(e) You intend to carry out a field study of a weather station in your school.

(i) Give **two** methods of recording data that you are likely to use. **(2 marks)**

(ii) State **three** reasons why the recording of data at a school weather station may be inaccurate. **(3 marks)**

8. (a) (i) Distinguish between a fault and a fold. **(2 marks)**

(ii) Give **three** factors that influence folding. **(3 marks)**

(b) Describe how isostatic adjustment cause earth movement. **(5 marks)**

(c) Describe how plate tectonic movements cause fold mountain formation. **(5 marks)**

(d) (i) Name **two** features resulting from faulting. **(2 marks)**

(ii) Explain how faulting influences drainage of an area. **(8 marks)**

9. (a) Distinguish between soil profile and soil catena. **(2 marks)**

(b) Explain how the following factors influence soil formation:

(i) The parent rock **(4 marks)**

(ii) Relief **(2 marks)**

(c) Describe laterization process of leaching. **(4 marks)**

(d) State **three** importance of soil structure. **(3 marks)**

(e) Give **two** characteristics of Azonal soils. **(2 marks)**

(f) Explain **four** causes of physical soil degeneration. **(8 marks)**

10. (a)(i) Define the term Moraine. **(2 marks)**

(ii) State **three** conditions necessary for the formation of ice. **(3 marks)**

(b) Describe how ice moves through the following:-

(i) Basal slip **(3 marks)**

(ii) Extrusion flow **(3 marks)**

(c) Describe how an arete is formed. **(6 marks)**

(d) Explain the **four** Significance of lowland glaciated features to human activities. **(8 marks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

GEOGRAPHY

312/2

PAPER 2

TIME: 2¾ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES.

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

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

(c) *This paper has **two** sections: **A** and **B**.*

(d) *Answer **all** the questions in sections **A**.*

(e) *Answer question **6** and any other **two** questions from Section **B**.*

FOR EXAMINER'S USE ONLY

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

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SECTION A

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

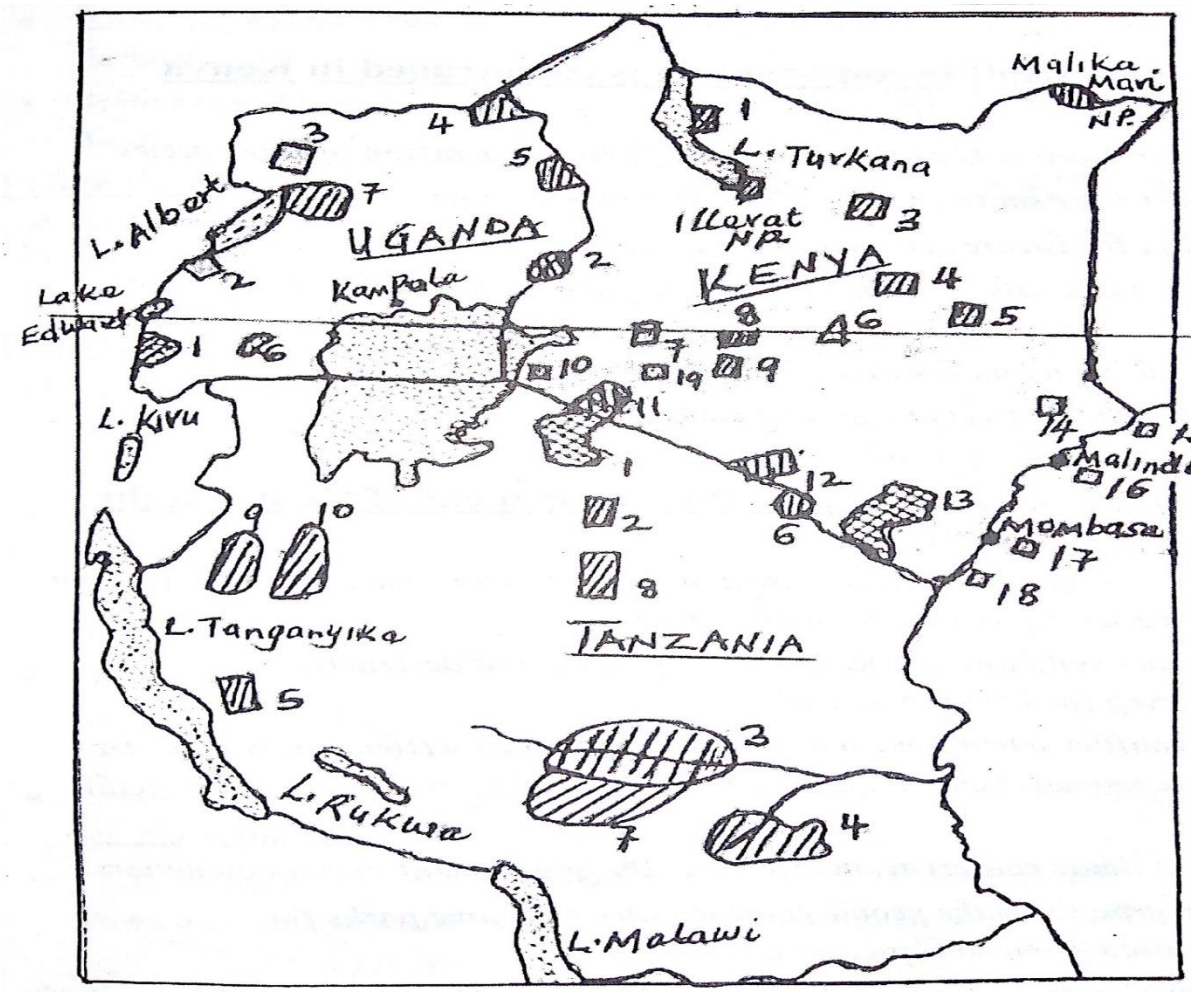
1. a). Define mining. **(2marks)**

b). State **three** factors influencing the occurrence of minerals. **(3marks)**

2. a). State **three** advantages of Hydro-electric power in Kenya. **(3marks)**

b). Give **two** measures of conservation energy. **(2marks)**

3. (a) Study the map blow of East Africa and use it to answer questions.



Name

(i). The National Park marked **2.** **(1mk)**

(ii). The Game Reserve marked **4**. **(1mk)**

(iii). The game sanctuary marked **7.** **(1mk)**

(b) State **three** reasons why Switzerland receives more tourists than Kenya. **(3marks)**

4. Identify **four** factors which have contributed to the growth of Mombasa as an international port. **(4marks)**

5. Outline the stages of reclamation of land from the sea in the Netherlands through the Zuider Zee project. **(5marks)**

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SECTION B

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

6. (a). The table below shows maize production in Kenya per county; between 2017 – 2018 in `000 kgs.

County / Year	2017	2018
Trans – Nzoia	33,055	34,065
Uasin – Gishu	27,060	30,040
Nakuru	12,022	14,145
Bomet	11,336	10,272
Narok	10,678	12,128
TOTAL	**83,352**	**100,650**

(i). Using a scale of ***1cm to represent 10 million kgs***, draw a divided rectangle to represent the data for maize production in 2018. **(6marks)**

(ii). Describe the production of maize in the 5 counties in Kenya. **(4marks)**

(iii). State **three** disadvantage of using a divided rectangle to represent the above data. **(3marks)**

(b). State **three** physical conditions that favour maize growing in Kenya. **(3marks)**

(c). Give **three** problems facing maize farmers in Kenya. **(3marks)**

(d). Explain **three** ways in which the government of Kenya can assist maize farmers in Kenya. **(6marks)**

7. (a) State **four** physical factors that favored the establishment of Ruhr Industrial region in Germany. **(4marks)**

(b). Explain **four** problems arising from industrialization in Kenya. **(8marks)**

(c). State **five** characteristics of cottage industry in India. **(5marks)**

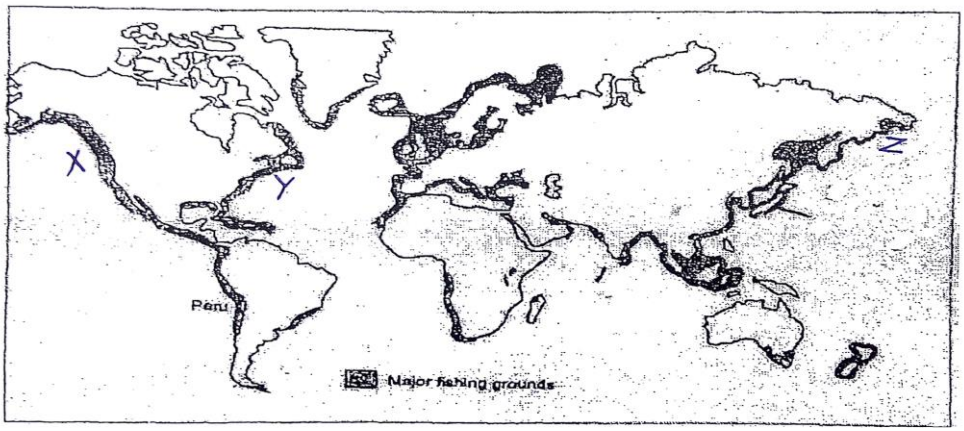
(d). Form **four** students in your school carried a field study on Thika town.

(i). Give **four** factors that led to growth of Thika as an industrial centre. **(4marks)**

(ii). Give **four** advantages of studying industry through field work. **(4marks)**

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8. Study the map of the world below and use it to answer question (a) (i)



(a). (i). Name the fishing grounds marked. **(3marks)**

X -

Y -

Z -

(ii). Explain **three** physical factors influencing fishing in the region marked ***X*** on the map.**(6mks)**

(b) Describe how the basket method is used in catching the fish. **(5marks)**

(c) (i) State **five** ways in which marine fisheries in Kenya can be conserved. **(5marks)**

(ii) Name **three** methods used to preserve fish in lake Turkana. **(3marks)**

(d). State **three** characteristics of demersal fish. **(3marks)**

9. (a). Study the map outline below shows the Great lakes and St. Lawrence sea way and use it to answer questions below.



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(i). Use the map to name the following: **(4marks)**

- The lake marked X
- The canal marked Y
- The waterfall marked Z

(ii). State **five** problems and the solutions faced during the construction of the Great lakes and St. Lawrence sea way. **(5marks)**

(iii). Explain **three** ways through which the water way has promoted industrialization in the economies of the Canada and U.S.A. **(6marks)**

(b). State **four** ways in which the Kenyan government has promoted air transport**. (4marks)**

(c). What is containerization? **(2marks)**

(d). Give **four** advantages of the Great North road. **(4marks)**

10. (a) Differentiate between management and conservation of environment. **(2marks)**

(b) (i) State **four** reasons for the management and conservation of environment. **(4marks)**

(ii) Give **three** man-made hazards in your country. **(3marks)**

(c) State **five** effects of drought in Kenya. **(5marks)**

(d) You are planning to carry out a field study on causes of pollution along Nairobi river.

(i) Identify **three** ways you will need to prepare for the study. **(3marks)**

ii) Identify **five** causes of pollution you are likely to see along Nairobi river. **(5marks)**

(ii)What are possible follow-up activities that students will be involved in after the study? **(3marks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

MATHEMATICS

121/1

PAPER 1

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Instructions to Candidates

(a) *Write your name, admission number and class in the spaces provided above.*
(b) *Sign and write the date of examination in the spaces provided above.*
(c) *This paper consists of **two** sections**; Section I** and **Section II.***
(d) *Answer **all** the questions in **Section I** and any **five** questions from **Section II***
(e) ***Show all the steps in your calculations, giving your answers at each stage in the spaces provided below each question***
(f) *Marks may be given for correct working even if the answer is wrong.*
(g) *Non-programmable silent electronic calculators and KNEC Mathematical tables may be used, except where stated otherwise.*

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Section I

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

Section II

17	18	19	20	21	22	23	24	Total

Grand Total

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SECTION I 50 MARKS

(Answer all the questions)

1. Without using mathematical tables or calculator, evaluate: Leaving the answer as a fraction in its simplest form. ***(2 marks)***

2. Use prime factors to evaluate ***(3 marks)***

3. Solve for ***m*** in the equation: ***(3 marks)***

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4. (a) Find the greatest common divisor of the term. **(1 mark)**

(b) Hence factorize completely this expression ***(2 marks)***

5. Solve for x if ***(3 marks)***

6. A car dealer charges 10% commission for selling a car. He received a commission of Ksh. 27,500 for selling a car. How much did the owner received from the sale of his car if the dealer added an extra charges of 5 %. ***(3 marks)***

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7. Two similar cylinders have diameter of 7cm and 21cm. If the larger cylinder has a volume of 6237cm^3. Find the heights of the two cylinders. ***(3 marks)***

8. A sector of radius 12 cm subtends and angle of 70^0 at the centre. If the sector is folded to form a cone, calculate ;

(a) The area of the curved part of the cone ***(2 marks)***

(b) The radius of the cone formed. ***(2 marks)***

9. Find all the integral values of ***x*** which satisfy the inequality ***(3 marks)***

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10. The table below shows four principal crops produced in Kenya in the years 2000 and 2001. Use it to answer the questions below.

CROP AMOUNT IN METRIC TONNES

YEAR	2000	2001
Wheat	70,000	13,000
Maize	200,000	370,000
Coffee	98,000	55,000
Tea	240,000	295,000

(a) Using a radius of 5 cm, draw a pie chart to represent crop production in the year 2000. ***(3 marks)***

(b) Calculate the percentage increase in wheat production between the years 2000 and 2001. ***(1 mark)***

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11. Construct line AB 12.2 cm. Use a line X which meets line AB at A such that angle XAB is to divide line AB into 8 proportional parts. ***(3 marks)***

12. The cost of providing a commodity consists of transport, labour and raw material in the ratio 8:4:12 respectively. If the transport cost increases by 12% labour cost 18% and raw materials by 40%, find the percentage increase of producing the new commodity. ***(3 marks)***

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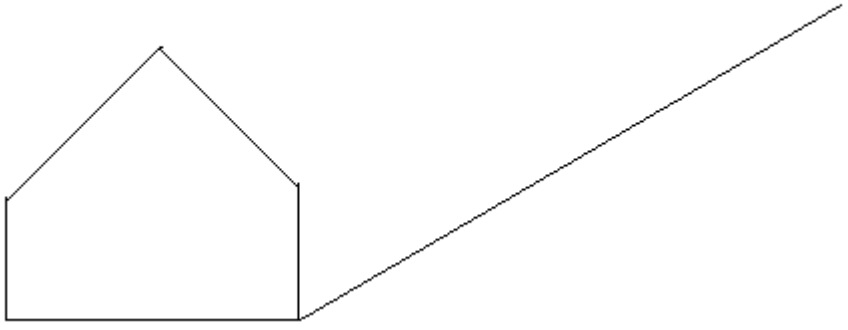
13. A line L_1 passes through point (-1,1) and perpendicular to the line L_2 which makes an angle of 18.43494882^0 with the x-axis. Find the equation of L_1 giving your answer in the double intercept form. ***(4 marks)***

14. Given that and find ***(4 marks)***

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15. The exterior angle of a regular polygon is equal to one-third of the interior angle. Calculate the number of sides of the polygon and give its name. ***(3 marks)***

16. In the figure below, shows an irregular solid with a uniform cross-section. Complete the sketch, showing the edges clearly. ***(2 marks)***



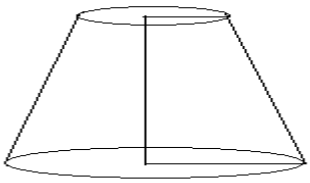
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SECTION II (50 MARKS)

(Answer ANY FIVE questions in the spaces provided)

17. The figure below shows a frustrum container with base radius 8 cm and top radius 6 cm. The slant height of the frustrum is 30cm as shown below. The container 90 percent full of water.



(a) Calculate the surface area of the frustrum ***(3 marks)***

(b) Calculate the volume of water. ***(4 marks)***

(c) All the water is poured into a cylindrical container of circular radius 7cm, if the cylinder has the height of 35cm; calculate the surface area of the cylinder which is not in contact with water.

(3 marks)

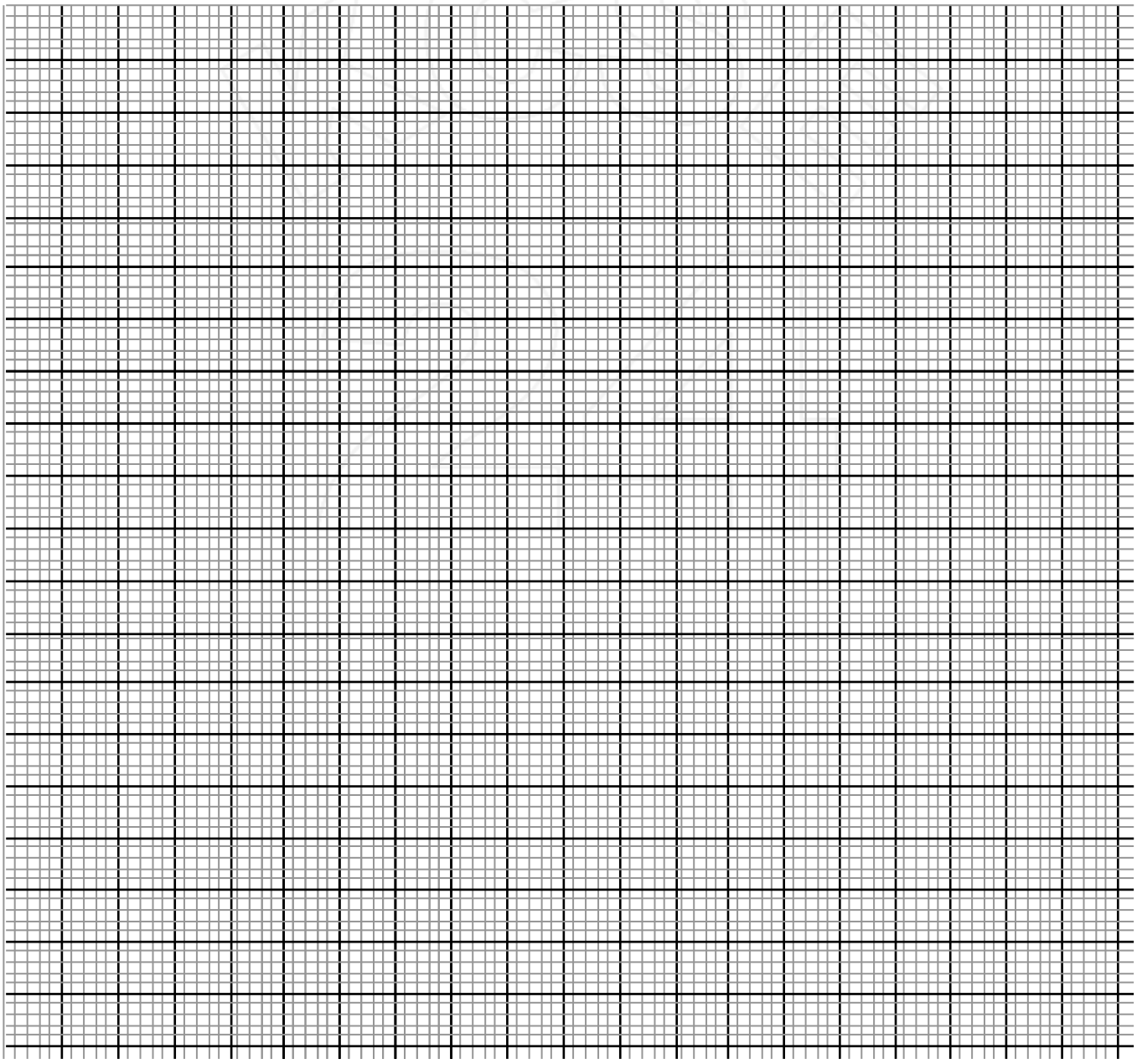
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18. (a) Complete the table below for the function .***(2 marks)***

x	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**	**4**
$-x^3$	27	8		0		-8		
$2x^2$	18	8	2	0				
-4x		8		0				-16
2	2	2	2	2	2	2	2	2
y		26		2		-6		-46

(b) On the grid provided below draw the graph of

for ***(3 marks)***



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(c) Use the graph to estimate the roots of . ***(2 marks)***

(d) By drawing a suitable line on the graph solve the equation.

(3 marks)

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19.

A lorry left Malaba for Nairobi, 500 km away at 6.00 am and travelled at an average speed of 60km/h. After travelling for 1hour it stopped for 30 minutes to unload some luggage then proceeded with its average speed. A coast bus left Nairobi for Malaba at 8.00 am and travelled at an average speed of 90km/h. Calculate

(a) The distance travelled by the lorry before the bus started its journey. ***(2 marks)***

(b) The time of the day the two vehicles met ***(4 marks)***

(c) How far from Malaba when they met. ***(3 marks)***

(d) The time the bus reached Malaba if it travelled continuously without stopping. ***(1 mark)***

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20. The table below shows measurements in metres made by a surveyor in her field book.

(Distance are given in metres)

	B	
	280	
F 50	250	
	200	E 40
	150	D 100
C 120	100	
	40	B 50
	A	

(a) Using the representative fraction scale of a map is , Draw the accurate measurements of the field

(3 marks)

(b) Calculate the area of the field in hectares ***(5 marks)***

Using the above scale:

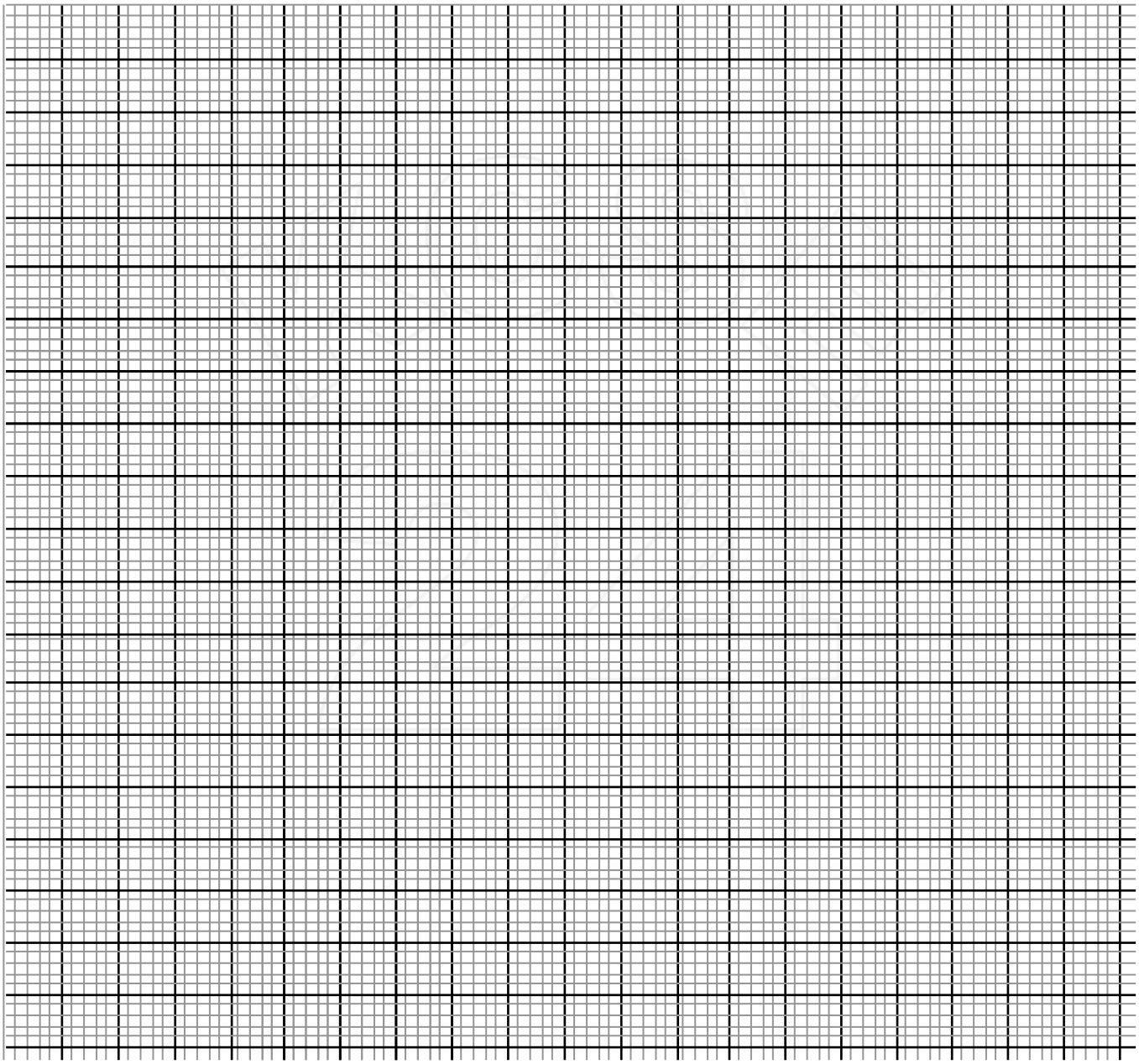
(c) Calculate actual circumference of the circular maize farm of radius 2.1cm on the map in kilometres. ***(2 marks)***

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21. The table below shows the marks of 100 candidates in an examination:

Marks	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
No of students	4	9	16	24	18	12	8	5	3	1

(a) Draw a cumulative frequency curve to represent above data ***(3 marks)***



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(b) Using the graph determine:

(i) the upper quartile ***(1 mark)***

(ii) estimate how many students passed, if 55 marks is the pass mark. ***(2 marks)***

(iii) find the pass mark if 70% of the students are to pass ***(2 marks)***

(iv) the range of marks obtained by the middle 80% of the students ***(2 marks)***

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22. A ball is thrown upwards with a velocity of 40 m/s.

(Take acceleration due to gravity to be)

(a) Determine the expression of its height above the point of projection ***(3 marks)***

(b) Find the velocity and height after 2 seconds and 3 seconds ***(2 marks)***

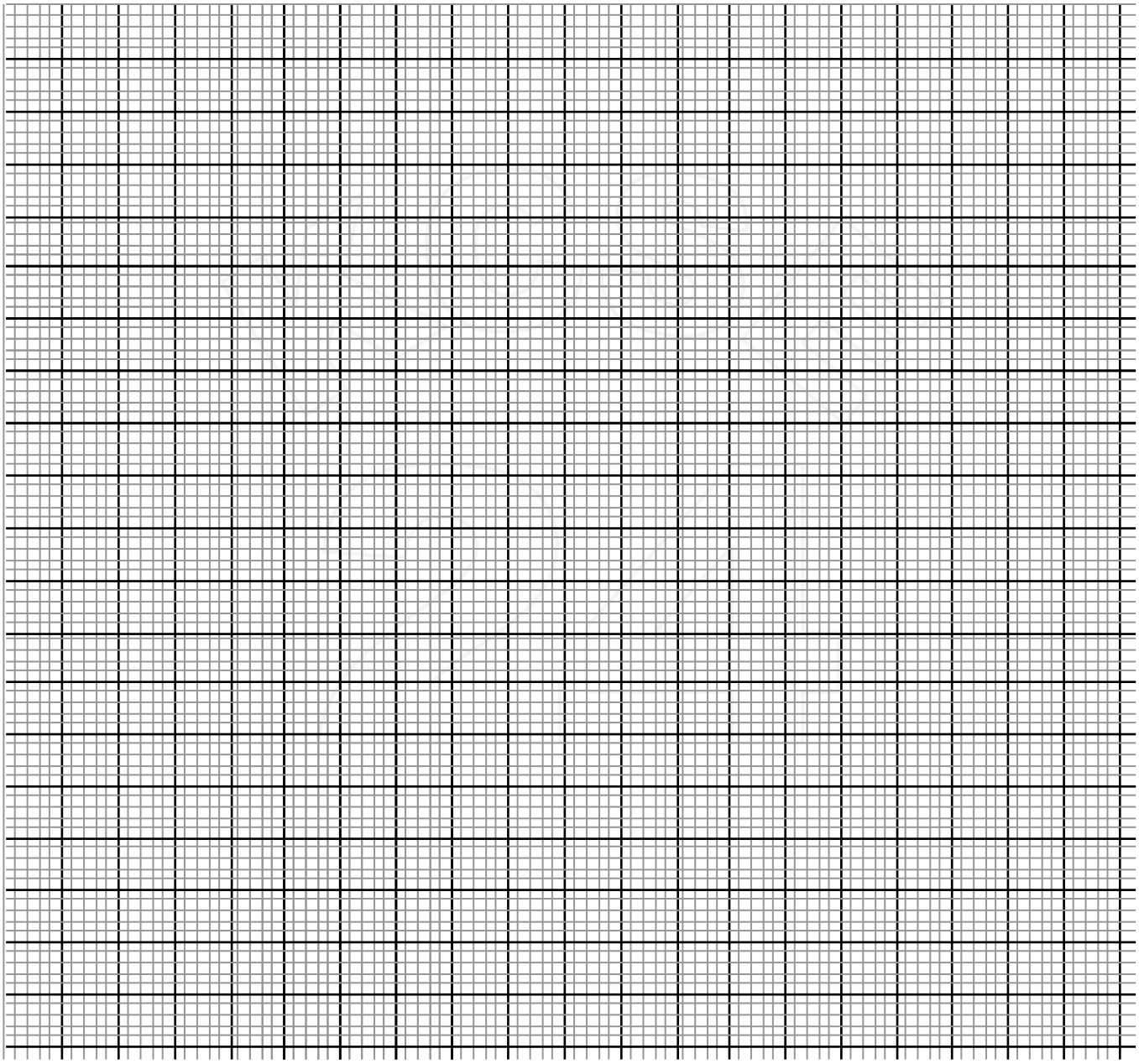
(c) Find the distance moved by the ball between and ***(2 marks)***

(d) Find the maximum height attained by the ball. ***(3 marks)***

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23. A transformation represented by the matrix $\begin{pmatrix} -2 & 1 \\ 1 & 2 \end{pmatrix}$ maps P(0,0), Q(2,0), R(2,3) and S(0,3) onto P', Q', R', S'

(a) On the grid provided draw the quadrilateral PQRS and P'Q'R'S' ***(3 marks)***



(b) Determine the area of PQRS , Hence or otherwise find the area of P'Q'R'S' ***(2 marks)***

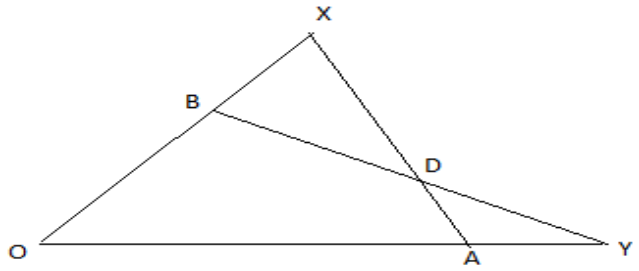
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(c) A transformation represented by the matrix $\begin{pmatrix} 0 & -1 \\ -1 & 0 \end{pmatrix}$ maps P'Q'R'S' onto P''Q''R''S''. On the same Cartesian plane draw and state the coordinates of P''Q''R''S'' ***(3 marks)***

(d) Determine the matrix of transformation that would map P''Q''R''S'' onto PQRS ***(2 marks)***

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24. In the figure below, and . If Y divides line OA in the ratio and



(a) Find in terms of **a** and **b** the vectors:

(i) **XA** ***(1 mark)***

(ii) **BY** ***(1 mark)***

(b) If **XD**=*h***XA** and **BD**=*k***BY**, express OD in terms of

(i) a, b and *h* ***(1 mark)***

(ii) ***a, b*** *and k* ***(1 mark)***

(c) using the results in (b) above, find the values of *k* **and** *h* hence find ***XD:DA*** and ***BD:DY.***

(6 marks)

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

MATHEMATICS

121/2

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

Instructions to Candidates

(a) *Write your name, admission number and class in the spaces provided above.*
(b) *Sign and write the date of examination in the spaces provided above.*
(c) *This paper consists of **two** sections**; Section I** and **Section II.***
(d) *Answer **all** the questions in **Section I** and any **five** questions from **Section II***
(e) ***Show all the steps in your calculations, giving your answers at each stage in the spaces provided below each question***
(f) *Marks may be given for correct working even if the answer is wrong.*
(g) *Non-programmable silent electronic calculators and KNEC Mathematical tables may be used, except where stated otherwise.*

FOR EXAMINER'S USE ONLY

Section I

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

Section II

17	18	19	20	21	22	23	24	Total

Grand Total

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SECTION I 50 MARKS

(Answer all the questions)

1. Use logarithm tables of trigonometry and numbers to evaluate; **(3 marks)**

$$\sqrt{\frac{\sin 35^0 \cos 50^0}{\log 6}}$$

2. By rounding each number to the nearest tens, approximate the value of, $\frac{2454\times396}{66}$

Hence, calculate the percentage error arising from this approximation to 4 significant figures**.** **(3 marks)**

3. Determine the value of for which the matrix below is singular**.** **(3 marks)**

$$\begin{pmatrix} x & 4 \\ 1 & x-3 \end{pmatrix}$$

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4. Simplify without using tables or a calculator **(3 marks)**

$$\frac{\sin 480^0 - \cos 765^0}{\tan 225^0 - \sin 330^0}$$

5. Find the value of x in the equation $\cos(3x - 180^o) = \frac{\sqrt{3}}{2}$ in the range listed below.

(3 marks)

6. Z is directly proportional to x^2 and inversely proportional to . If x is increased by 22.5% and y is decreased by 19.76%. Find the percentage change in Z. **(3 marks)**

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7. Triangle PQR has vertices P(-1, 2) Q(-1, 1) and R(1, -1). Find the matrix of transformation which maps triangle PQR onto triangle P^1 Q^1 R^1 whose vertices are P^1(-3, 2) Q^1(0, -1) R^1(2, -1). Describe the transformation fully. (**3 marks)**

8. The age distribution of 9 workers in a factory were: 32, 30, 28, 35, 33, 37, 33, 34, 32. Determine the semi-Interquartile range of the data**.** **(3 marks)**

9. The first three terms of a geometric sequence are $2x,\ x-8\ and\ 2x+5$ respectively. Find the possible values of x **(3 marks)**

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10. 125 small white cubes are arranged to form one large cube. The sides of the large cube are then painted red, the cubes are then dismantled and one of the small cubes picked at random. Find the probability that the cube picked has two of its side painted red. **(3 marks)**

11. The gradient function of a curve is given by the expression 2x+1. If the curve passes through the point (-4,6).Find the equation of the normal to the curve at this point. **(3 marks)**

12. Find the area enclosed by the curve and the x – axis using mid-ordinate rule with 9 strips. **(4 marks)**

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13. Two parallel chords of a circle are each 16cm long. If the radius of the circle is 10cm. Find the perpendicular distance between the chords. **(3 marks)**

14. Line AB is the diameter of a circle such that the co-ordinates of its ends A and B are (-1, -4) and (7,2) respectively.

(a) Determine the centre and radius of the circle. **(2 marks)**

(b) Hence find the equation of the circle. **(1 mark)**

15. The table below shows income tax rates in Kenya.

Monthly taxable income in Ksh	**Tax rate percentage % in each shilling**
Upto 8680	10%
From 8681 to 18900	15%
From 18901 to 27920	20%

During the year, Mong'are paid a net tax of Ksh. 5360 after a relief of Ksh. 1256 in a certain month. Calculate Mong'are's net salary during the month if he enjoys a non-taxable travel allowance of Ksh. 5000**.** **(4 marks)**

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16. Write down the expansion of $\left(1+\frac{1}{4}x\right)^4$,use the first three terms of the expansion to find out the value of $(1.025)^4$ correct to three decimal places. **(3 marks)**

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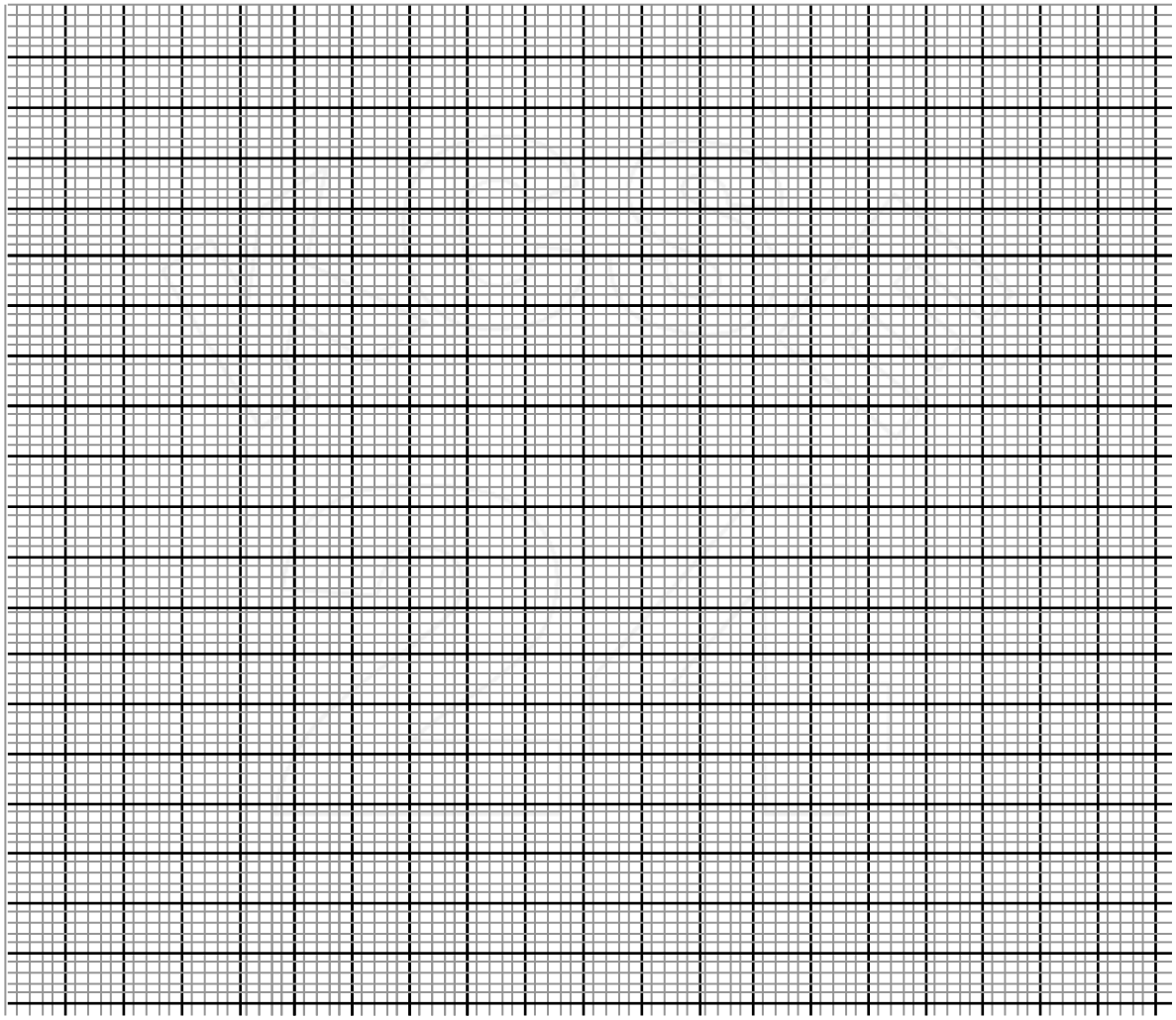
SECTION II (50 MARKS)

(Answer ANY FIVE questions in the spaces provided)

17. (a) Complete the table below and use it to answer the question that follow. **(2 marks)**

(b) draw the graph of and on the same axis using a scale of 1cm for 30 on the x-axis and 1cm for 0.2 units on the y-axis**.** **(5 marks)**

	-1	-0.87		0	0.5		1		0.5	0	-0.5	
	0		0.87	0		-0.87		0.87		0		-0.87



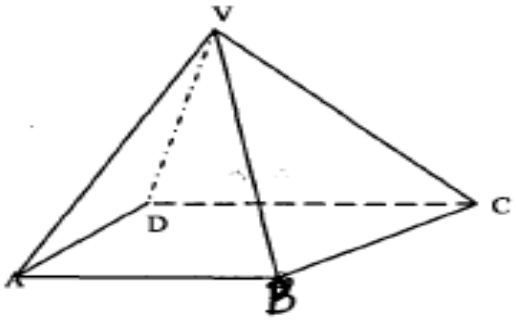
(c) Estimate the values of x for which

(i) **(2 marks)**

(ii) **(1 mark)**

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18. The diagram below represents a square based pyramid with equilateral triangles, .



Calculate the:

(a) Height of the triangular faces. **(2 marks)**

(b) Length of AC **(1 mark)**

(c) Angle between VD and the base **(3 marks)**

(d) Angle between VAB and VBC **(4 marks)**

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19. (a) A farmer bought a tractor at Ksh.1800000. The tractor's depreciation rate is 12% p.a. Find the number of full years it will take for the value of the tractor to depreciate to Ksh. 800000.

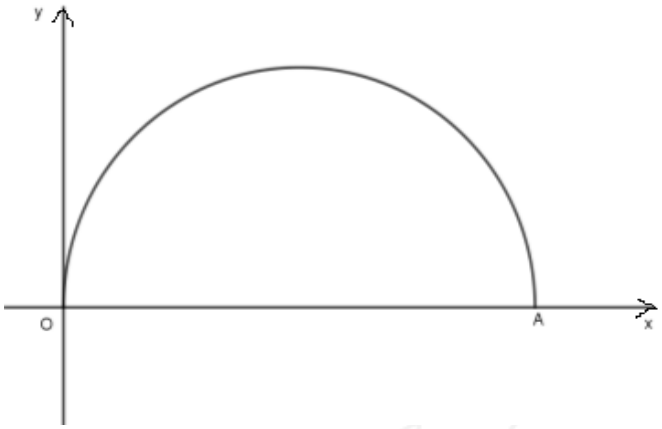
(3 marks)

(b) At the start of the eighth year, the tractor was sold at a value that is Ksh. 200,000 more than its actual value. If the selling price was to be taken as its actual value at the start of the eight year, find the tractors semi annual rate of depreciation. **(4 marks)**

(c) The hire purchase of a table is Ksh.16800. If 25% is paid as deposit and the rest of the money is spread over 10 equal monthly installments. Find the amount of each installment. **(3 marks)**

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20. The diagram represents parts of a curve $y = 2x - x^2$



(a) Calculate:

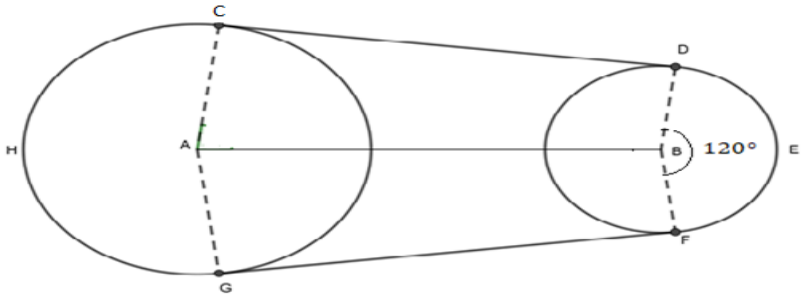
(i) the coordinates of A **(2 marks)**

(ii) the area bounded by curve and the x-axis**.** **(3 marks)**

(b) The equation of the curve is . Calculate the angle between the and tangent to the curve at (2, -6) **(5 marks)**

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21. The diagram represents two pulley wheels, centres A and B with a rubber band CDEFGHC stretched round them. Radius of the wheel centre A is 12cm,
AB = 20cm, CD, GF are tangents to the circles. Angle



Calculate

(a) Length

(i) BD **(2 marks)**

(ii) CD **(2 marks)**

(b) Arc lengths;

(i) CHG **(2 marks)**

(ii) DEF **(2 marks)**

(c) The total length of the belt **(2 marks)**

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22. Figure ABDE below represents Koech's grazing land. It is divided into three paddocks. ABE, BCE and CDE. <ABE = 80°, <CBE = 60° and <CDE = 62°. AB = 260m and CD = 80m.

(a) Calculate to the nearest metre;

(i) The length of CE **(2 marks)**

(ii) The length of AE **(3 marks)**

(iii) The perimeter of the grazing land **(3 marks)**

(b) Koech fenced each side of the three triangular paddocks with three strands of wire. He left 2.4m wide gates at sides AB, BE and CE. If the wire that he used was bought in rolls of 500m, determine the number of rolls of wire that he bought. **(2 marks)**

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23. (i) Construct the triangle ABC in which , angle ° and angle °. Measure the length BC **(1 mark)**

(ii) Construct the circumcircle of triangle ABC **(2 marks)**

(iii) On the same side of AB as C, construct the locus of point P such that the area of triangle ABP is half the area of triangle ABC**.** **(4 marks)**

(iv) Mark and label clearly a point Q such that AQB is 30°**.** **(3 marks)**

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24. **P** and **Q** are two points on a geographical globe of diameter 50 cm. They both lie on a parallel latitude 50^{o} North. **P** has longitude 90^{o} West and Q has longitude 90^{o} East. A string **AB** has one end at point **P** and another at point **Q** when it is stretched over the North pole. Taking π;

(a) Calculate the length of the string. **(3 marks)**

(b) If instead the string is laid along the parallel of latitude 50^{o}N with **A** at point **P**, calculate the longitude of point **B.** **(3 marks)**

(c) State the position of **B** if the string is stretched along a great circle of **P** towards the South pole if point **A** is static at **P**. **(4 marks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

COMPUTER STUDIES

451/1

PAPER 1

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

- ***(a)*** *Write your name and index number in the spaces provided above.*
- ***(b)*** *This Paper consists of **two** sections **A** and **B**.*
- ***(c)*** *Answer **all** the questions in **section A**.*
- ***(d)*** *Answer **question 16** (compulsory) and any other **three** questions from section **B**.*

FOR EXAMINERS USE ONLY

SECTION	QUESTION	
A	1 – 15	
B	16	
	17	
	18	
	19	
	20	
TOTAL MARKS		

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SECTION A (40 MARKS)

Attempt ALL questions from this section

1. What is meant by Data Communication Equipment (DCE)? **(1 mark)**

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2. List **three** examples of Data Communication Equipment. **(3 marks)**

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3. (i) Name **three** types of graphics used in a word processor **(3 marks)**

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(ii) Distinguish between subscript and section breaks **(2 marks)**

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4. List any **three** protocols used in sending and receiving of emails **(3 Marks)**

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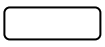
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5. State the use of each of the following flowchart symbols **(3 marks)**

i. 

ii. 

iii. 

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6. State **any two** techniques used by a network administrator to detect and prevent computer crimes. **(2 marks)**

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7. State **two** transmission media used in wireless transmission **(2 marks)**

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8. With the aid of a diagram describe the Hierarchical Database Model **(2 marks)**

9. List any **three** factors that should be considered when developing a database application and give reasons why each should be considered. **(3 marks)**

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10. Name any **three** types of validation checks during data entry **(3 marks)**

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11. (i) Differentiate between primary key and index key as used in databases. **(2 marks)**

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(ii) Differentiate between hardware and software portability. **(2 marks)**

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12. State **three** ways in which computer virus infection can be prevented other than through restricting the usage of removable storage media. **(3 marks)**

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13. State **two** advantages of **real time** data processing mode. **(2 marks)**

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14. State **two** roles of an information system **(2 marks)**

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15. A company in town wishes to link its offices together; the linking may be through wireless or fibre optic network media. State **two** benefits that the company would gain from the use of metropolitan area network (MAN) **(2 marks)**

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SECTION B (60 MARKS)

Answer question 16 and any other THREE questions from this section B

16. (a) State **four** guidelines followed when designing a flowchart. **(2 marks)**

(b) A concert was organized in a hall with a capacity of 1500 people. The first 700 people to buy the tickets at ksh. 1500 were reserved a seat at the VIP section while the others who bought their tickets at ksh. 1000 sat at normal hall outside the VIP section. Assuming that only 1420 tickets were sold;

(i) Write a program pseudo code that would be used to determine the sitting arrangements of ticket holders i.e VIP or Normal, the number of VIP, Normal and Unoccupied seats and finally display the total amount of money collected from the concert. **(6 marks)**

(ii) Draw a flowchart for the pseudocode above **(7 marks)**

17. (a) Differentiate between a **select** query and **action query** as used in databases.**(2 marks)**

(b) Explain **four** elements of database **(4 marks)**

(c) Explain the use of each of the following field properties as used in databases **(3 marks)**

(i) Validation rule

(ii) Input mask

(iii) Indexed

(d) Kiprono has been experiencing a lot of problems in his computer while using it. As a result, he was advised to do the following in order to avoid the problems.

(i) Compress the disk files

(ii) Defragment the disk.

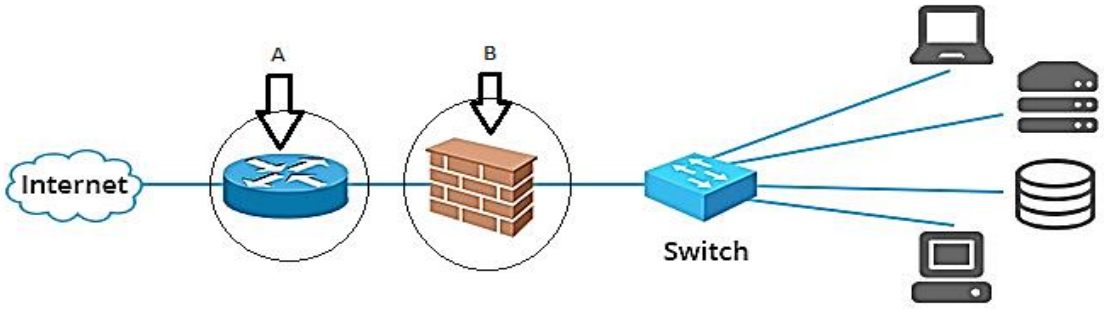
Explain the difference between the two terms above **(2 marks)**

(e) Differentiate between Multi-user operating system and Multithreading operating system. **(2 marks)**

(f) State two roles of a programmer in system development life cycle **(2 marks)**

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18. (a) The diagram below shows a network arrangement that includes a network security feature to protect data and information. Use it to answers the questions that follow.



(i) The networking device labeled **A** is used to connect computers to a WAN (Internet). Name the device used for this purpose. **(1 mark)**

(ii) The part labeled **B** is a security feature used to protect data traffic in the network. Identify and explain the function of this part. **(2 marks)**

(b) Define a network node. **(1 mark)**

(c) State any **two** functions of a network operating system. **(2 marks)**

(d) The internet has been embraced as great a great resource for information and a variety of applications. State **two** ways in which a book publisher can make use of the internet.**(2 marks)**

(e) Name and explain **two** types of twisted pair cable used in data transmission**.** **(3 marks)**

(f) With aid of a labeled diagram, describe ring network topology; stating **one** disadvantage of such network. **(4 marks)**

19. (a) Convert each of the following numbers to decimal equivalent; given that the left most bit is a sign bit.

(i) 0101011 **(2 marks)**

(ii) 111110101 **(2 marks)**

(b) Differentiate between **enhanced BCD** and **ASCII-8** coding scheme of representing data in computers. **(2 marks)**

(c) Compute the following binary arithmetic expressions.

(i) 1010.101 + 11.011 **(2 marks)**

(ii) 1010.101 - 11.011 **(2 marks)**

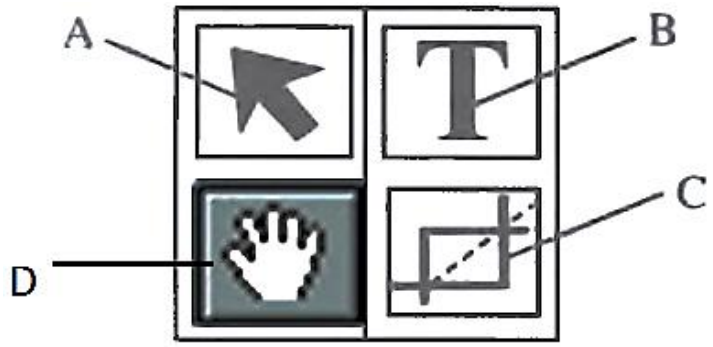
(d) Convert 0.42_{10} to 6-bit binary notation. **(2 marks)**

(e) Using 8-bit twos complementation, perform the following binary operation. **(3 marks)**

$111010_2 - 27_{10}$

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20. The figure below is a toolbar for a **DTP** package.



(a) Name and state the functions of the tools labeled A, **B, C** and D. **(4marks)**

(b) Using relevant examples give **four** advantages of using desktop publishing software. **(4 marks)**

(c) State **four** advantages of automated production. **4 marks)**

(d) Most industries use computers for process control. Give any **three** benefits of this.**(3mks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

COMPUTER STUDIES

451/2

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

1. *Type your name and index number at the top right hand corner of each printout.*
2. *Sign and write the date of the examination below the name and index number on each printout.*
3. *Write your name and index number on the compact disks.*
4. *Write the name and version of the software used for each question attempted in the answer sheet.*
5. *Passwords should not be used while saving in the compact disks.*
6. *Answer all the questions.*
7. *All questions carry equal marks.*
8. *All answers must be saved in your compact disks.*
9. *Make a printout of the answers on the answer sheets provided.*
10. *Hand in all the printouts and the compact disks.*

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1. (a) (i) Using a database management system, create a database file named **ANTIGUA_ENT_LTD** to store the data below. **(1 mark)**

CommodityTable

Commodity_ID	Commodity_Name	Retail_Cost
C10	Apple Vinegar Super	400
C20	Assorted Sandwich	300
C30	Sweetener Max	130
C40	Soda 1L	120
C50	UPS APC 2	5000
C60	Persil Detergent	130
C70	Minute maid	120
C80	Pizza XL	1000
C90	Sacho Springs water 5L	650
C100	UPS APC 1	3000

SuppliersTable

Supplier_ID	Supplier_Name	Town
S-11	Antigua Foods	Nakuru
S-12	Prime Fast Food	Nairobi
S-13	Gilanis Mart	Nakuru
S-14	Power Dynamics Ltd	Eldoret
S-15	Panda Energy	Nakuru
S-16	SAHICO	Kabarnet
S-17	Rio Beverages	Nakuru

OrderTable

Order_ID	Commodity_ID	Supplier_ID	Order_Date
101	C10	S-11	12/04/19
102	C20	S-12	22/04/19

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103	C30	S-11	12/04/19
104	C40	S-11	02/05/19
105	C50	S-14	12/04/19
106	C60	S-16	22/08/18
107	C70	S-17	19/08/18
108	C80	S-12	12/04/18
109	C90	S-13	11/05/18
110	C100	S-15	15/04/18

(ii) Create tables named: **Commodity_Table, Suppliers_Table and Order_Table** in the database created in (a) to store the information above assigning appropriate data types for each field. **(14 marks)**

(iii) Identify a field to be assigned as primary key for each table. **(**$1\frac{1}{2}$ *marks*)

(iv) Create relationships among the tables and enforce referential integrity. **(3 marks)**

(b) Capture the number of units for the Commodities as shown below in the Commodity Table. **(3 marks)**

Commodity_ID	**No Of Units**
C30	50
C10	20
C60	89
C40	18
C50	10
C20	16
C70	35
C80	5
C90	21
C100	17

(c) Create a query named **RETAILCOST** to display Commodity name, retail price, number of units, suppliers' name and calculate the total retail price for each Commodity. **(4 marks)**

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(d) Create a query named **CUSTOM_QR** to display name of each Commodity, retail price and number of units ordered. The query should contain Commodities whose suppliers name start with letter **"P"** and Total Retail Price is between Ksh.4000 and less than Ksh.50,000.**(5 marks)**

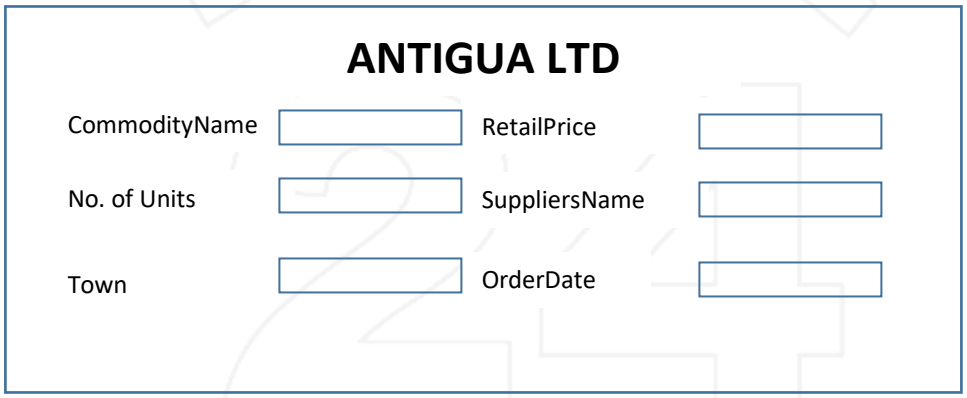
(e) Create a report named **SUPPLIERS_RPT** to display Commodity name, suppliers' name, total retail price and date of order. **(4 marks)**

- *Group records per suppliers' town*
- *Title the report as "**ANTIGUA SUPPLIERS DETAILS**"*
- *Show the Total Retail Prices per supplier.*

(f) Create a report named **ORDERS_2019** to display Commodity name, retail price, suppliers' name, town and items ordered in the year 2018 only. Show the number of suppliers.**(**$3\frac{1}{2}$ *marks*)

(g) Create a pie chart to display Total Retail Prices and their respective Commodities.**(2 mks)**

(h) Create a form named **COMMODITIES_2018** used to enter data in the database to appear as shown below **(5 marks)**



(i) Print the following **(4 marks)**

- **Tables:** CommodityTable
- **Queries:** RETAIL_COST and CUSTOM_QR
- **Reports:** SUPPLIERS _RPT

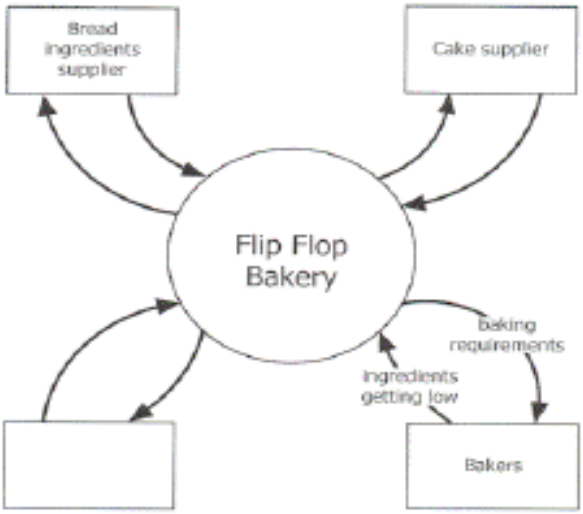
Question 2

a) Launch a Desktop publishing software and set the measurements to centimeters, margins 2cm all round and paper size A4 potrait. **(1½ marks)**

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Data flow diagram (DFD)

A data flow diagram (DFD) is a design tool to represent the flow of data through an information system.A *"context level"* DFD can be used to show the interaction between a system and outside entities; it can also show the internal data flows within a system. This version is also called a **context diagram**. It often shows the information system as a single circular shape with no details of its inner workings: what it shows is its relationships with the *external entities*.





For a diagram to be called a DFD, it needs to show the inner workings of an information system. The different levels of a DFD indicate how detailed it is, e.g. a Level 0 DFD is a broad overview of a system, showing hardly any detail within the system. A level 2 DFD explodes more summarised processes and shows another level of complexity within them. A level 3 or 4 DFD shows even more components opened up to show their inner details.With a dataflow diagram, developers can map how a system will operate, what the system will accomplish and how the system will be implemented. It's important to have a clear idea of where and how data is processed in a system to avoid double-handling and bottlenecks. A DFD also helps management organise and prioritise data handling procedures and staffing requirements

DATAFLOWDIAGRAM

b) Design the publication above (in page 4) as it appears and save it as MOKASA_2.(**30 marks)**

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c) Format the Title " Data Flow Diagram (DFD)" as follows: **(6 marks)**

(i)

- ***Character spacing:*** *300%*
- ***Font style:*** *Times New Roman*
- ***Font size:*** *13.5*

(ii) Modify the shape containing the title as follows:

- ***Background*** *: Gradient with 17% transparency, Shading style Horizontal*
- ***Border line*** *: Double*

d) Apply a first line indent to the first paragraph of the document. **(2 marks)**

e) Proofread your publication. **(½ mark)**

f) Insert your full index number as a watermark of your publication. **(2 marks)**

g) Insert your full name as the header, Class and admission number as the footer of your publication . **(2 marks)**

h) Insert page number at the right bottom margin of your page. **(2 marks)**

i) Insert the Date and time created for this document after the first paragraph. **(2 marks)**

j) Print your publication **(2 marks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

HOME SCIENCE

441/1

PAPER 1

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

INSTRUCTIONS TO CANDIDATES

- *Answer all questions in section A in the spaces provided*
- *Section B is compulsory*
- *Choose any two questions from section C*

FOR EXAMINERS USE ONLY

SECTION	Question	Maximum score	Candidate's score
Section A	1-39	40	
Section B	40	20	
Section C	41-43	40	
Total score		100	

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SECTION A (40 MARKS)

1. Explain **two** ways home science relates to geography. **(1mk)**

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2. Mention **two** ways the social need of a patient recuperating at home can be abused**.** **(1mk)**

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3. Give **two** functions of Phylloquinone in the human body. **(1mk)**

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4. State **two** precautions to bear in mind when a mother undergoes home delivery. **(1mk)**

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5. State **two** precautions to take when using wood as fuel. **(1mk)**

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6. Mention any **two** practices in the management of sprains. **(1mk)**

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7. Note down **two** causes of missing stitches during machining. **(1mk)**

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8. Differentiate between **hemming** and **slip hemming**. **(1mk)**

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9. Suggest **two** preparations done to a fabric to be used for patching. **(1mk)**

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10. Name **two** desirable properties of storage facilities. **(1mk)**

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11. List down **two** laundry treatments which may be done during the rinsing stage other than starching. **(1mk)**

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12. State **two** ways of reducing bulk in seams. **(1mk)**

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13. State **two** factors that may make meat dry and tough after roasting. **(1mk)**

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14. Highlight **two** factors that determine the specific nutritional needs of a sick person**. (1mk)**

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15. Identify the correct direction to press the following **darts** during garment construction.

(2mks)

(i) Front shoulder dart _____

(ii) Bust dart _____

(iii) Elbow dart _____

(iv) Back waist dart _____

16. State **two** factors that determine the depth of a hem. **(1mk)**

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17. Define rechauff'e cookery. **(1mk)**

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18. Identify **two** ways in which consumers can protect themselves from exploitation. **(1mk)**

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19. Mention **two** things that can be done to storey buildings to accommodate the physically challenged. **(1mk)**

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20. Give **two** ways of caring for a water closet. **(1mk)**

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21. State **two** reasons why saucepans should have a thick base. **(1mk)**

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22. Give **two** scenarios where mechanical ventilation would be necessary. **(1mk)**

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23. Mention **two** reasons for storing food. **(1mk)**

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24. List **two** points on the importance of basting in cooking. **(1mk)**

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25. Differentiate between **ironing** and **pressing**. **(1mk)**

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26. List **two** advantages of dry cleaning. **(1mk)**

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27. Name **two** vaccines administered orally. **(1mk)**

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28. State **two** ways of maintaining clothes. **(1mk)**

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29. Mention **two** points to consider when planning and serving vegetarian meals. **(1mk)**

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30. Name **two** types of electric lamps. **(1mk)**

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31. State **two** reasons for blending fibres. **(1mk)**

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32. Mention **two** disadvantages of canned foods. **(1mk)**

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33. State **two** points to observe when taking body measurements. **(1mk)**

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34. Highlight **two** reasons why weaning is done. **(1mk)**

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35. State **two** factors that encourage the use of convenience foods. **(1mk)**

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36. List **two** advantages of natural lighting. **(1mk)**

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37. Mention **two** ways playing can be made enjoyable. **(1mk)**

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38. State **two** ways of caring for a vacuum cleaner. **(1mk)**

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39. Identify **two** ways of finishing the edge of the sleeve other than using a cuff. **(1mk)**

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SECTION B (20 MARKS)

40. Explain the procedure of cleaning the following items before you resume school.

(a) A plastic basin used by your sick auntie. **(5mks)**

(b) A plain kitchen table used to cut raw beef. **(7mks)**

(c) A long sleeved silk blouse. **(8mks)**

SECTION C (40 MARKS)

41. (a) Giving **two** examples differentiate between primary and secondary colours**.** **(4mks)**

(b) Identify **four** problems related to breast feeding and their remedies. **(4mks)**

(c) Explain the hydrolysis method of soap making. **(4mks)**

(d) State **four** disadvantages of hoarding. **(4mks)**

(e) List **four** general rules to observe when making flour mixtures. **(4mks)**

42. (a) List **four** functions of the Kenya Consumer Association. **(4mks)**

(b) Give **four** reasons for heavy and close texture in creamed cake mixtures. **(4mks)**

(c) Mention **four** ways of making a faced slit opening decorative. **(4mks)**

(d) Highlight **four** advantages of complementary feeding. **(4mks)**

(e) State **four** points to consider when choosing flowers **(4mks)**

43. (a) Explain **four** ways pastry can be kept cool during preparation. **(4mks)**

(b) Note down **four** qualities of a well-made collar. **(4mks)**

(c) State **four** advantages of hire purchase. **(4mks)**

(d) State **four** ways of caring for a lactating mother. **(4mks)**

(e) Explain **four** reasons why soft furnishings are used in homes. **(4mks)**

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

HOME SCIENCE

441/2

PAPER 2

TIME: 2½ HOURS

SCHOOL…… SIGN……

Kenya Certificate of Secondary Education.

441/2

CLOTHING & TEXTILES

Paper 2

Time: 2½ Hours

CONFIDENTIAL

1. Light weight cotton fabric 70cm by 65cm.

2. Cotton sewing thread to match the colour of fabric.

3. Elastic cord 18cm long by ½ cm wide.

4. A4 envelope.

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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

HOME SCIENCE

441/2

PAPER 2

TIME: 2½ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

441/2

CLOTHING & TEXTILES

Paper 2

Time: 2½ Hours

Kenya Certificate of Secondary Education

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A pattern of a blouse has been provided. You are adviced to study the questions, the patterns Q the layout before you begin the test.

Materials provided;

1. Pattern pieces.

A - Front bodice

B - Back bodice

C - Front yoke.

D - Sleeve

E - Collar

F - Grossway strip

2. Light weight cotton fabric of 70 by 65 cm.

3. Cotton sewing thread to match the fabric.

4. Elastic cord 18cm long ½ cm wide.

5. Envelop A4.

THE TEST

Using the materials provided, cut out and make the left half of the blouse to show the following;

1. Cutting out. **(15½ marks)**

2. Working of the inverted pleat on the front bodice. **(3 marks)**

3. Joining the front bodice to the yoke using an overlaid seam. **(10 marks)**

4. Joining the front bodice to the back bodice at the shoulder using an open seam. **(6½ marks)**

5. Working the side seam using double stitched seam. **(7½ marks)**

6. Preparation and attachment of uninterfaced collar using a crossway strip. **(16 marks)**

7. Working of the sleeve to include;

   (a) Control of fullness at the crown. **(2 marks)**

   (b) Joining of the underarm seam using a French seam. **(6½ marks)**

   (c) Attachment of the sleeve. **(4 marks)**

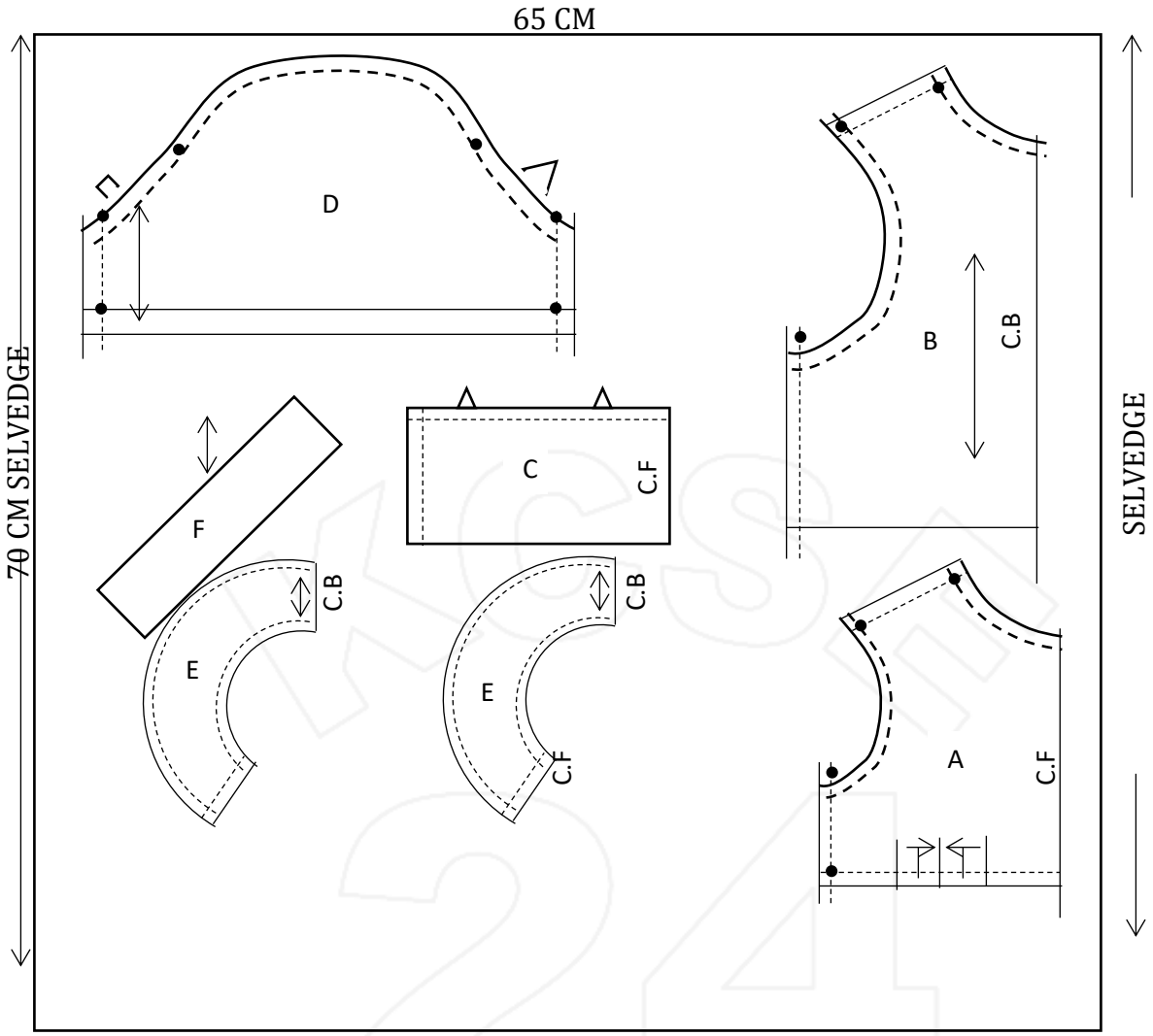
(d) Working of elastic casing at the lower edge of the sleeve and inserting the elastic cord. Don't seal the opening used to insert the cord. **(10 marks)**

8. Presentation. **(6 marks)**

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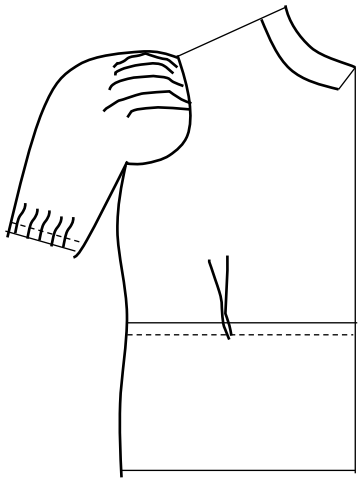
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LAYOUT (NOT DRAWN TO SCALE)

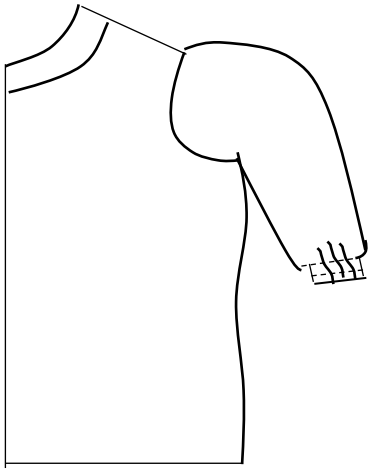


VIEWS

FRONT



BACK



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KCSE 2024 PREDICTION EXAM

(ACHIEVERS SERIES)

HOME SCIENCE

441/3

PAPER 3

TIME: 1¾ HOURS

NAME……

SCHOOL…… SIGN……

INDEX NO…… ADM NO……

Kenya Certificate of Secondary Education.

441/3

HOME SCIENCE

Foods & Nutrition

Paper 3

PRACTICAL

PLANNING SESSION: 30 Minutes

PRACTICAL SESSION: 1 ¼ HOURS

INSTRUCTIONS TO CANDIDATES

a) *Read the test carefully.*

b) *Write down your name and index number on every sheet of paper used.*

c) *Textbooks and recipes may be used during the planning session as reference materials.*

d) *You will be expected to keep to your order of work during the practical session.*

e) *You are allowed to take away **ONLY** your reference materials at the end of the planning session.*

f) *You are not allowed to bring additional notes to the practical session.*

g) *Candidates should answer the questions in English.*

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THE TEST

Your mother and her two friends are having a 'chama' brief. Using **ALL** ingredients listed below, prepare, cook and serve an early 2-course midday meal for them. Include a stimulating drink, to be served later.

Ingredients

Oil/fat
Wheat floor / maize meal
Milk
Hoho
Beverage
Ginger
Leafy vegetables
Salt
Beef
Onions
Sugar
Pineapple
Water melon
Lemon
Bananas
Tomatoes
Pawpaw

PLANNING SESSION: 30 MINUTS

For each task below, use separate sheets of paper and make duplicate copies using carbon paper. Then proceed as follows:

1. Identify the dishes and write down the recipes.

2. Write your order of work.

3. Write the list of foodstuffs, equipment and materials.

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THE END

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