# FORM 2 ENDTERM 3 EXAMS

# ALL SUBJECTS

## SERIES 2

**SUBJECTS COMPILED:**

***Maths,English,Kiswahili,Biology,Chemistry,Physics,History,CRE,Geography,Agriculture &Business Studies.***

***A Collection of well-organized standard updated End of Term Three Test Examinations for our Current Form 2 Students in all Schools in Kenya.***

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# MWALIMU AGENCY

# FORM 2 ENDTERM 3 EXAMS

## (SERIES 2)

# BIOLOGY

## TIME: 2 HOURS

**NAME…… ADM NO……**

**SIGN……DATE;……**

## QUESTIONS

**1.** Define the following branches of Biology. **(2mks)**

i) Genetics

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ii) Entomology

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**2. (a)** Define the term species. **(2mks)**

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(b) Which taxonomic group has the largest number of members**?.....(1mk)**

3. (a) Name the laboratory apparatus used for the following; **(2mks)**

(i) Catching small flying insects.....……..

(ii) Sucking small animals from rock surfaces or barks of trees.……..

**4.** State the functions of each of the following organelles.

**a)** Nucleolus……..……..…….....**(1mk)**

**b)** Golgi apparatus…….……..…….....**(2mks)**

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**5.** Name any **three** specialized plant cells. **(3mks)**

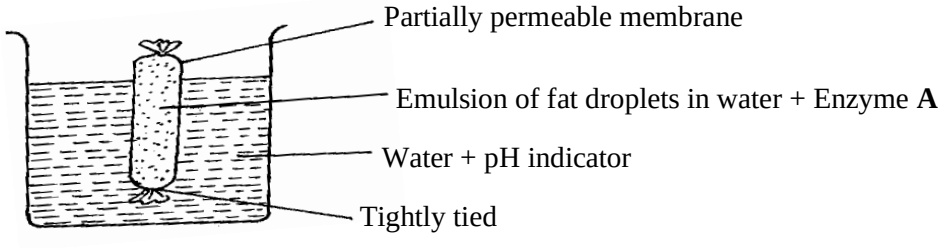
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6. The figure below shows apparatus at the start of an experiment to investigate the digestion of an emulsion of fat droplets in water by enzyme **A**.




The pH indicator is green in a pH of 7, blue when the pH is above 7 and red when it is below 7. The apparatus is kept at 40$^{o}$C for 20 minutes during which time the indicator changes from green to red.

**(a)** Describe how the products of fat digestion enter a person's blood. **(1mk)**

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……

**(b)** i) State the identity of enzyme **A**. **.....(1mk)**

ii) Explain why the apparatus was kept at 40$^{o}$C**.....(1mk)**

**(c)** Name the products of digestion of the emulsion by enzyme **A**. **(2mks)**

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**(d)** Describe the process which led to the change in pH **(3mks)**

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**7. i)** State the products of photolysis in photosynthesis. **(3mks)**

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ii) Give **two** adaptation of a leaf for photosynthesis. **(2mks)**

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**8. a)** State **two** roles of bile juice. **(2mks)**

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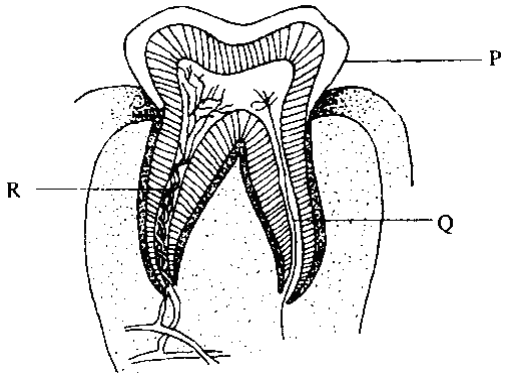
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b) Name two salts in bile that aid in emulsification of fats. **(2mks)**

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9. The diagram below represents a longitudinal section of a human tooth.




a) Identify the type of tooth. .....(1mk)

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

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c) State one function of the tooth. (1mk)

.....

d) State the function of the part labeled Q **(1mk)**

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**10 a)** Name **three** forces that maintain transpiration stream. **(3mks)**

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b) Explain **two** adaptations of xylem tissue to its function. **(2mks)**

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**11. a)** State the advantages of having the following blood types.

**i)** Blood type AB: **……..(1mk)**

……

ii) Blood type **O: ……..(1mk)**

b) State **four** ways in which the red blood cells are adapted to their **function** **(4mks)**

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**c)** Name the antigens that determine human blood groups. **(2mks)**

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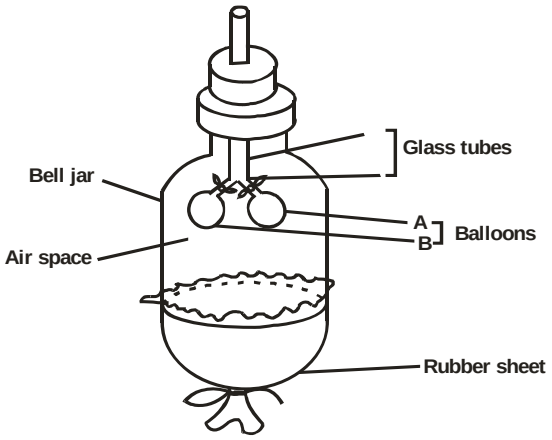
**13**. State **three** theories that explains the mechanism of opening and closing of the stomata: **(3mks)**

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**14.** The diagram below represents a model of lungs and thorax. When rubber sheet is pulled downwards the balloons inflate; and when it is raised the balloons deflate.




a) What parts of the mammalian body are represented by;

i) Glass tubes**……..(1mk)**

ii) Bell jar. **……..(1mk)**

iii) Rubber sheet.**……(1mk)**

iv) Balloons. **……..(1mk)**

b) State the importance of breathing through the nose than through the mouth **(2mks)**

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**15.** The oxidation of a certain substrate is represented by the chemical equation shown below.

$C_{57}H_{104}O_6 + 80O_2$ ——— ***57$C0_2$*** **+** Energy

a) Calculate the respiratory quotient (RQ) of the substrate. **(2mks)**

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b) Identify the above substrate. **……(1mk)**

c)

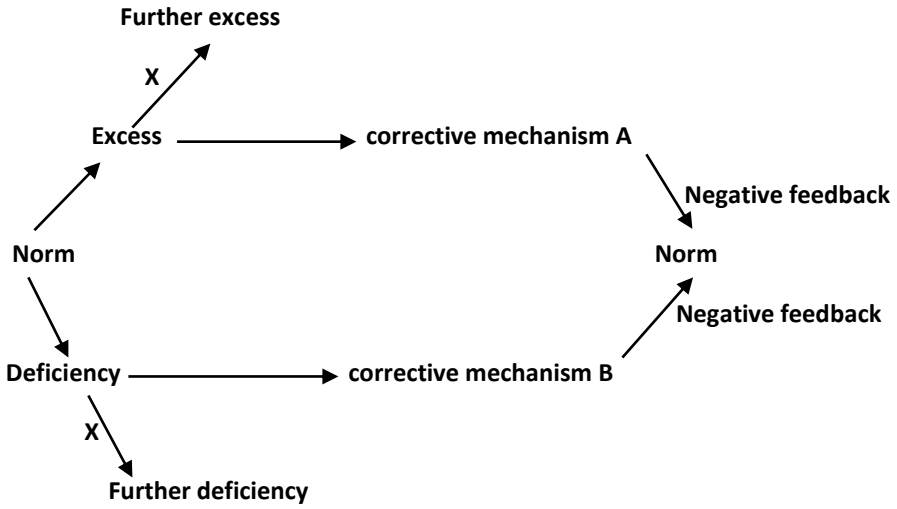
16. An animal is found to have large glomeruli and short loop of Henles .Account for the presence of

i) Large glomeruli…… **(1mk)**

ii) Short loop of Henle. **……(1mk)**

iii) State the possible aquatic habitat**……..… (1mk)**

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




a) Name the principle labeled X …… **(1mk)**

b) If the above diagram represented blood sugar regulation

i) State the corrective mechanisms carried out at **A** **(2mks)**

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……

ii) The condition that may result from the further **excess** **(1mk)**

……

iii) The hormone that would be responsible for correcting the **deficiency** **(1mk)**

……

**18. a)** The skin as an organ plays a role in Homeostasis. Name **two** roles of the human skin in homeostasis. **(2mks)**

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b) Melanocytes are cells of the skin responsible for production of a skin pigment.

**(i)** Name the pigment produced by melanocytes.....**(**1mk)

**(ii)** In which layer of the epidermis of the skin are melanocytes found?.....(1mk)

iii) State the primary function of the pigment named in (b)(i) above. (1mk)

**……**

**19.** List down two economic importance anaerobic respiration agriculture **(2mks)**

**……**

**……**

**……**

**Success** **Success** **Success**

# FORM 2 ENDTERM 3 EXAMS

## (SERIES 2)

# AGRICULTURE

## TIME: 2 HOURS

**NAME…… ADM NO……**

**SIGN……DATE;……**

## QUESTIONS

**1)** State four symptoms of liver fluke attack in sheep. **(2mks)**

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**2)** State four control measures of beef tape worm. **(2mks)**

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**3)** State four ways of controlling lice in poultry. **(2mks)**

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**4)** State four signs of infestations by external parasites in goats. **(2mks)**

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**5)** State four characteristics of roughage in livestock feeds. **(2mks)**

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**6)** State two functions of the crop in digestive system. **(2mks)**

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**7)** State four factors that affect the digestibility of a feed in dairy animals. **(2mks)**

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**8)** State four functions of vitamins. **(2mks)**

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**9)** Prepare 100kg of pig ration containing 20% D.C.P using cereal balancer 10% D.C.P and cotton seed cake 30% D.C.P show your working. **(4mks)**

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**10)**Define the term Health in livestock. **(1mk)**

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b. State four physiological parameters that can be used as indicators of ill health in livestock. **(2mks)**

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**11)**What are infectious diseases in livestock? **(1mk)**

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b. Name the causes of infectious diseases in livestock. **(1 ½ mks)**

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c. Explain two different ways through which good nutrition can help to control diseases in livestock. **(2mks)**

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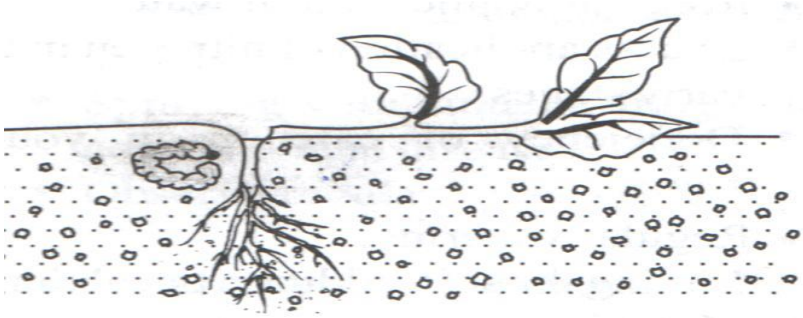
d. Define the term Quarantine. **(1mk)**

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**12)**b. Identify the cabbage pest shown below. **(1mk)**



b. Suggest three possible control measures for the pest. **(3mks)**

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c. Name two diseases of cabbage crop. **(1mk)**

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**13)**State four factors considered when selecting a site for a tomato nursery bed. **(2mks)**

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**14)**State three advantages of single stem pruning over multiple stem pruning. **(1 ½ mks)**

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**15)**State four qualities of an ideal grain store. **(2mks)**

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**16)** State four factors that determine the harvesting stage of a crop. **(2mks)**

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**17)** Give the importance of carrying out the following in a nursery bed.

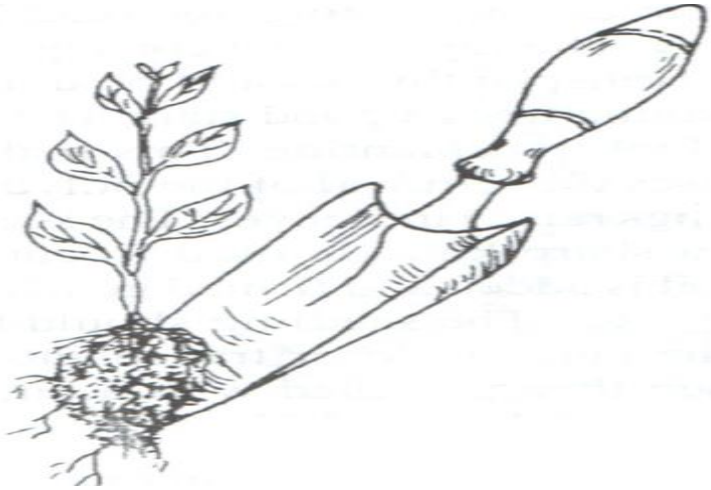
(a) Pricking out **(1mk)**

……

(b) Hardening off **(1mk)**

……

**18)** Study the illustration in the diagram below and answer the questions that follow. **(1mk)**



a. Identify the practice being illustrated. **(1mk)**

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b. State three activities that should be carried out for successful results in the practice shown above.

**(3mks)**

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c. At what stage should the practice be carried out in vegetable seedlings**.** **(1mk)**

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**19)** State four advantages of row planting. **(2mks)**

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**20)** State four factors considered in timely planting. **(2mks)**

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**21)** State four aspects of rainfall that influence agriculture. **(2mks)**

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**22)** State four effects of applying excessive nitrogen in crop production. **(2mks)**

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**23)** State two causes of hard pans. **(2mks)**

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**24)** Name three tertiary operations carried out in land preparation**.** **(1 ½ mks)**

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**25)**Name three types of pumps used by farmers. **(1 ½ mks)**

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**26)**Give four reasons for treating water before use. **(2mks)**

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**27)**State four factors that affect the quality of farm yard manure. **(2mks)**

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**28)**Name four breeds of dairy goats. **(2mks)**

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**29)**Give two types of labour records. **(2mks)**

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**30)**Define agricultural economics. **(1mk)**

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# FORM 2 ENDTERM 3 EXAMS

## (SERIES 2)

# BUSINESS STUDIES

## TIME: 2 HOURS

**NAME…… ADM NO……**

**SIGN……DATE;……**

## QUESTIONS

**1.** For each of the following goods, identify the appropriate class that they belong to**.(2 marks)**

| Goods | Classification |
|---|---|
| Road | |
| Sisal | |
| Bread | |
| Tractor | |

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

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**3.**Outline ***four*** characteristics of landscape office layout. **(4 marks)**

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**4.**Differentiate between a tied shop and a single shop. **(4 marks)**

| Tied shop | single shop |
|---|---|
| | |
| | |
| | |
| | |

**5**.Highlight ***four*** duties of consumer associations towards consumer protection**.** **(4 marks)**

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**6.**Highlight ***four*** circumstances under which railway transport may be appropriate as a means of transport. **(4 marks)**

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**7.**Outline ***four*** circumstances under which communication would become ineffective. (**4 marks)**

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**8**.Mention ***four*** benefits of warehousing to the consumers. **(4 marks)**

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**9.**Mr. Ndumia insured his lorry whose value was shs.1,000,000 for shillings 600,000 against the risk of fire outbreak. While on transit, there was a mechanical problem and the lorry caught fire and was burnt causing a loss of shs.500,000. Calculate the compensation amount and give a reason for that. **(4 marks)**

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**10**.For each of the following descriptions, identify the corresponding method of product promotion.

**(4 mks)**

| DESCRIPTION | METHOD OF PROMOTION |
|---|---|
| Free promotion of a product | |
| Strategies to increase sales at the point of promotion. | |
| mpersonal presentation of a product through the mass media | |
| Ment to improve the reputation of a firm | |

**11**.Outline **four** ways in which a good business structure is of benefit to a business organization

**(4mks)**

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**12.**Outline **four** difficulties that would be faced by an individual in the satisfaction of human Wants **(4mks)**

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**13.**State **four** circumstances under which it may be appropriate to use personal selling as a form of product promotion **(4mks)**

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**14.**State **four** functions of commercial attaches **(4mks)**

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**15.**Give **four** reasons why some traders prefer to operate supermarket business **(4mks)**

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**16.**State **four** reasons why short message service (SMS) is replacing letters as a way of communication **(4mks)**

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**17.**State **four** circumstances under which a clerk may be employed to work in organization **(4mks)**

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**18.**Give **four** benefits that are likely to result form a modern railway network in the country**(4mks)**

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# FORM 2 ENDTERM 3 EXAMS

## (SERIES 2)

# CHEMISTRY

## TIME: 2 HOURS

**NAME…… ADM NO……**

**SIGN……DATE;……**

## QUESTIONS

**1)** Define the term Chemistry? **(1mks)**

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**2)** An atom of element x is represented as shown below.

$^{23}_{11}X$

**(iii)** Using dots or crosses diagrams draw the atom of element x. **(2mks)**

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**(iv)** Show the electronic configuration of a stable ion formed by element x. **(1mk)**

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**3)** Define the following terms. **(3mks)**

**a)** Crystallization

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**b)** Radical

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**c)** Mixture

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**4)** Study the diagram below and answer the questions that follow.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | E |
| A | B | | C | | | | D | |
| | G | | I | | | | H | |
| F | | | | | | | | |

**(i)** Write down the electronic configuration of element E. **(1mk)**

……

(ii) Ion formed by element H. **(1mk)**

……

(iii) Formula or compound formed when G combines with D. **(1mk)**

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By giving reason, identify the type of bond formed in a (iii) above? **(2mks)**

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Explain the differences in the melting points of A and B. **(2mks)**

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Compare the reactivity of element D and H. **(2mks)**

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Name that particles that are responsible for electricity conductivity in ? **(3MKS**

**1.** Melts?

**2.** Solids?

**3.** Aqueous solutions?

**5)** (a) Give the chemical name of rust? **(1mk)**

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(b) Name 3 conditions necessary for rusting. **(3mks)**

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**6)** Distinguish the following terms: (6mks)

a) Allotropes and Isotopes

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b) Hydroscopic and deliquescent salts.

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c) Thistle funnel and separating funnel

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**7)** Give two substances which can be separated by sublimation **(2mks)**

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**8)** Is air a mixture or a compound? Explain. **(2mks)**

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**9)** When magnesium is reacted with air, there is around 90% change in volume of air. With the help of chemical equations. Explain this. **(4mks)**

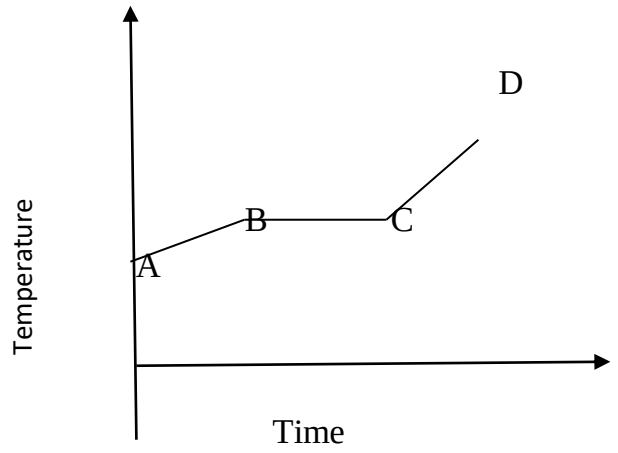
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**10)**The graph below shows the changes that occur when solid A is heated. Study it and answer the questions that follow.




a) What happens between points A and B. **(2mks)**

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b) What happens between Point B and C. **(2mks)**

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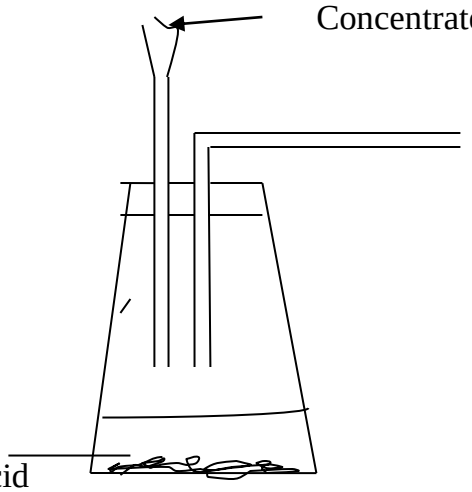
**c)** What are the effects of impurities on the melting point and boiling point of substances? **(2mks)**

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**11)**The set up below shows laboratory preparation of carbon (ii) oxide gas.




- Complete the diagram to show how carbon (ii) oxide gas is collected. **(4mks)**
- Explain why carbon (ii) oxide gas is collected as shown above. **(1mk)**

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- Write a chemical equation for the reaction above. **(1mk)**

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- Name 2 other methods that can be used to prepare carbon (ii) oxide gas. **(2mks)**

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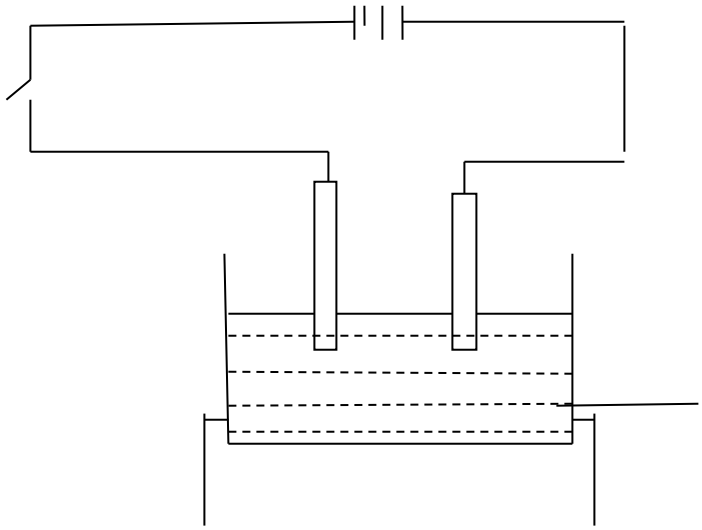
- A charcoal Jiko should be left burning in poorly ventilated room. Explain. **(2mk)**

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**12)** Study the set up below and answer the questions that follow.




a) State one condition missing in the set up **(1mk)**

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b) What happens to lead (ii) Bromide and the bulb when the condition above is available. **(2mks)**

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c) Write equations for the reactions occurring at **(2mks)**

(i) The cathode

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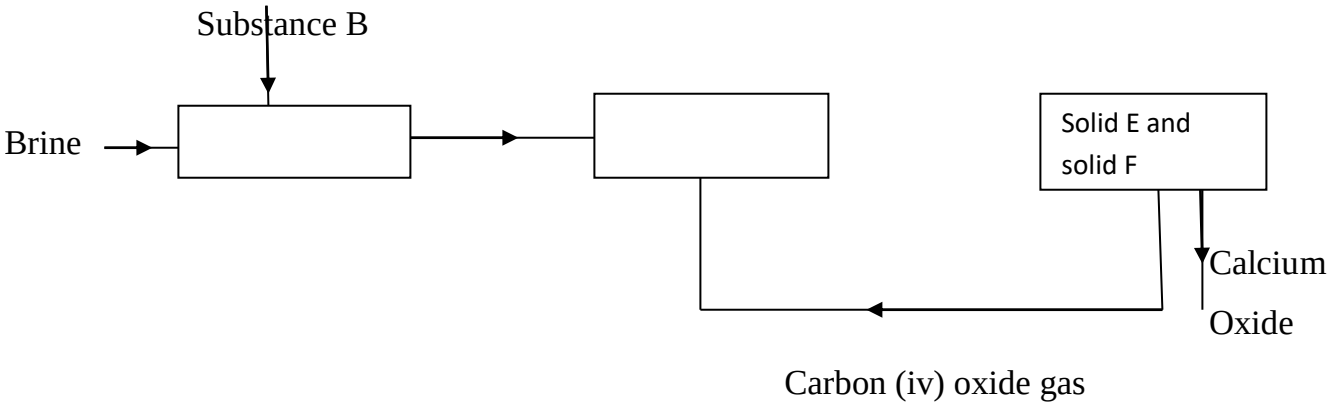
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(ii) The anode

……

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**13)** The figure below shows a section of the solvary process.




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

**(b)** Where should the solvary process be carried out? Explain **(2mks)**

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**(c)** Name solids E and F. **(2mks)**

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**(d)** Name 3 substances recycled in the Solvary process. **(3mks)**

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**14)** Give the method used to separate components of crude oil. **(1mk)**

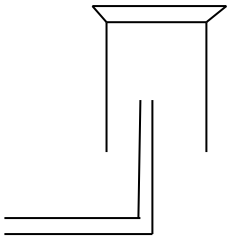
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**15)** Give 2 applications of crystallization **(2mks)**

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**16)**Give the name of the following method of gas collection. **(1mk)**



Gas P

# FORM 2 ENDTERM 3 EXAMS

## (SERIES 2)

## CHRISTIAN RELIGIOUS EDUCATION

### TIME: 2 HOURS

**NAME…… ADM NO……**

**SIGN……DATE;……**

***Answer ALL Questions*.**

**1.** Citing examples identify six literary forms used in the Bible. **(6mks)**

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**2.** Identify five consequences of sin according to Genesis chapter 3 to 11**.** **(5mks)**

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**3.** Explain what Abraham learnt about God from his experience at Mount Moriah**.** **(5mks)**

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**4.** Outline the instructions that the Israelites were given by Moses on the preparation of the Passover. **(6mks)**

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**5.** Explain five failures of King Solomon. **(5mks)**

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**6**. Identify the signs used by God to prove that He was the true God during the time of Prophet Elijah's prophecy. **(6mks)**

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**7.** State five responsibilities of the living towards ancestors in Traditional African Communities.**(5m)**

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**8.** State six events that took place on the night when Jesus was born according to Luke's Gospel.

**(6mks)**

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**8.** Identify six occasions when Jesus prayed according to Luke's Gospel**.** **(6mks)**

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**9.** What lessons do Christians learn about Jesus from the repentant thief? **(4mks)**

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**10.** State five ways in which the Jewish religious leaders ensured that Jesus was put to death. **(5mks)**

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**11.** Explain the signs of the end times (Eschatology) according to the teachings of Jesus. **(5mks)**

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**12.** Narrate the parable of the sower and give its meaning. Luke 8:4-15. **(8mks)**

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# FORM 2 ENDTERM 3 EXAMS

## (SERIES 2)

# ENGLISH

## TIME: 2 HOURS

**NAME…… ADM NO……**

**SIGN……DATE;……**

**CLOZE TEST**

**Fill in the blank spaces with the appropriate word. (10 marks)**

Murangi was determined to (1) _____the forthcoming general elections. He had previously (2)_____for the seat of Member of Parliament for Mabanda constituency three times in a row without(3)_____. A recent law passed in parliament restricted the age (4) _____those vying for a Parliamentary seat to seventy years. Murangi was now sixty-seven years. This was going to be his (5) _____ attempt at the seat.

Murangi constituted a powerful campaign team comprising of people from all works of (6)_____. After a lengthy discussion it was observed that the majority of (7)_____in Mabanda constituency were coffee workers who were very poor. A few campaign team (8)_____were requested to come up with ingenious way of influencing voters. They advised the team to give fifty shilling to each voter and supply them with illicity (9)_____. On the eve of the elections,several lorries supplied the farm workers with hundreds of litres of brew known in the area as "umeme". The workers enjoyed (10)_____immensely and promised to vote for Murangi the following day. Come the following morning, none of the workers could wake up. They had all been knocked out by the strong "umeme" brew they had drunk the previous evening.

**COMPREHENSION (20 marks)**

***Read the passage below and answer the questions that follow.***

**THE PATA MONKEY**

Pata monkeys were nicknamed military monkeys because of the dashing white moustache sported by adults both sexes. Sometimes they have a white nose-spot on their otherwise black faces. Their shaggy coat is bright orange, with an even brighter ted cap outlined in black. The belly and limbs

are white. The adult female weighs between seven and eight kilograms, while the male is twice as big.

Patas lived in the wooden savannah that lies between the desert and the forest that stretches right across Africa, from Senegal to Ethiopia. In East Africa , they live in Northern and Eastern Uganda, and in Kenya from Kitale across to Nanyuki.

Pata, of all monkeys are most adapted to life in open country. Long legend , standing on their fingers and toes rather than on the sole of their hand and feet like most plantigrade primates ,Patas can cover long distances at speed on the ground. They avoid stream-beds and stay out in the drier thorn scrub where the trees have been destroyed. They even live in quite open grassland.

Patas have teeth very much like those of forest monkey, and their fingers are delicate and rather weak. They eat very small tender pieces of grass, berries, soft leaves, flowers and fruits of acacias. They catch a lot of grass hoppers, occupational chameleons and eat the invertebrates they find underneath.

Patas females travel in groups of six to twelve, together with their off springs. A single adult male accompanies each group. The male is quite peripheral to the group, and most the time the female ignore him completely except to threaten him if they fancy he is too close to an infant. They usually choose their own line of March, and ignores his suggestions, so that he has to retrace his step to follow them. Nonetheless, the male will on occasions show how herding behaviour, in which he rounds up the members of the group and tries to drive or lead them.

The male spends much of his time on vantage points, often standing up on two and scanning anxiously around, he thereby warns the group in good times of approaching danger.

**QUESTIONS.**

**1)** Explain why Pata monkeys were nicknamed military monkeys **(2 marks)**

**2)** How heavy is a male Pata monkey **(1 mark)**

**3)** What is the habitat of the Pata monkey **(1 mark)**

**4)** Why are Patas monkey able to cover long distances on the ground **(2 marks)**

**5)** Identify two roles that male Patas monkey play in the group. Explain his achievement in each role**.** **(4 mks**

**6)** Describe the character of the female Patas monkey **(1 mark)**

**7)** What is the main source of the protein in the diet in the diet of the Patas monkeys**? (1 mark)**

**8)** Use one word to describe the feeding habits of the Patas monkey **(1 mrk)**

**9)** Explain the irony in the relationship between the male and the female Patas monkey **(2 marks)**

**10)**Give one reason why you are most likely to find Patas monkeys in open country**. (1 mark)**

**11)**Explain the meaning of the following word and phrases as used in the passage**. (4 marks)**

- Sported

- Invertebrates

- Peripheral

- Vantage

**POETRY (10 marks)**

**Read the poem below and respond to the questions that follow.**

I can see the rain
As I walk along the lane
I can hear, the lion roar
Just as lions did for yore
I have learnt to run a race
And I can ravel out some lace
I can fly and I can row
Let my rich imagination flow

**QUESTIONS.**

a) Identify and illustrate how rhythm has been achieved in the poem **(4 marks)**

b) Identify any two pairs of rhyming words in the poem **(2 marks)**

c) Comment briefly on the rhyme scheme used in the **poem** **(2 marks)**

d) How would you effectively perform line 7 in the poem above **(2 marks)**

**GRAMMAR. (10 marks)**

***Fill in the blank spaces using appropriate preposition.(3 marks)***

i. We want to go to Bondo_____ the lake but it started raining.
ii. I heard the news of his success _____the radio.
iii. Maneno is tired _____running up and down.
iv.

***Re-write according to instructions given after each.(2 marks)***

**(e)** Ramesh can manage the work. (rewrite using "cope")

**(f)** The prices of land were very competitive and he only bought an acre. (begin: so.....)

***Use the correct form of the word in bracket to complete the sentences below.(2 marks)***

**4.** The problem seemed_____(exceed) complex to me.

**5.** My father is very_____ (quarrel)

***Arrange the adjectives in the correct order in the sentences below (3 marks)***

**1)** She bought her sister a set of_____ spoons. (serving ,large, Chinese)

**2)** The carpenter made a _____house. (rectangular, wooden, huge, beautiful)

**3)** By the time I saw her, she was wearing a _____dress. (white, nylon, wet)

# FORM 2 ENDTERM 3 EXAMS

## (SERIES 2)

# HISTORY

## TIME: 2 HOURS

**NAME…… ADM NO……**

**SIGN……DATE;……**

## QUESTIONS

**1.** State **four** reasons why the study of government is **important** **(4mks)**

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**2**. Mention **one** natural condition that favored the use of sailing ships (dhows) in water transport **(1mk)**

……

**3.** Mention the father of the steam engine **(1mk)**

……

4. State **five** modern farming practices which led to Agrarian Revolution in he United States of America (USA**)** **(5mks)**

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**5.** Describe the impact of early agriculture in Mesopotamia **(10mks)**

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**6.** Explain **six** factors which undermine scientific revolution developing **(12 mks)**

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**7.** Explain **six** challenges facing industrialization in the third world countries. **(12mks)**

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**8.** Identify **five** aspects of the culture of the early man that had their origin in the late Stone Age **(5mks)**

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**9.** Explain **six** social effects of Tras-Saharan Trade on the people of the Western Sudan and North Africa**.(12mks)**

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**10.** Explain **five** effects of Agrarian revolution in America **(5mks)**

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**11.** State **three** uses of iron during pre- colonial period in Africa **(3mks)**

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# FORM 2 ENDTERM 3 EXAMS

## (SERIES 2)

# GEOGRAPHY

## TIME: 2 HOURS

**NAME…… ADM NO……**

**SIGN……DATE;……**

***Answer All Questions On Space Provided***

**1.** (a) State four reasons why its important to study geography **(4mks)**

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(b) Mention branches of geography **(2mks)**

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**2. (a)** Describe the solar system **(2mks)**

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**(b)** State the characteristics of the sun **(3mks)**

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**(c)** The local time at station x $60^0$w is 11.30a.m what is the time at station Y $37^0$E **(2mks)**

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**(d)** With aid of well labeled diagram describe the occurrence of solar eclipse **(6mks)**

**3.** (a) Name the layers of the atmosphere **(4mks)**

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(b) State the characteristics of the troposphere **(3mks)**

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

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(b) What's Stevenson's Screen **(2mks)**

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(c) Mention instruments found in the stevenson's screen **(2mks)**

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**5.** (a) Apart from water vapour, name other three substances that are suspended in the atmosphere **(3mks)**

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(b) Give two factors that are considered when classifying clouds **(2mks)**

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(c) State four proofs that the earth is Spherical **(4mks)**

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**6.** (a) Define statistics **(2mks)**

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(b) State four methods used to collect statistical data **(4mks)**

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**7.** (a) Name types of field work **(2mks)**

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(b) Why is it necessary to carry a pre-visit in field work **(4mks)**

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**8.** (a) Define earth movement **(2mks)**

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(b) Identify two causes of earth movement **(2mks)**

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(c) Name fold mountains found in the following countries **(3mks)**

Asici

North America

South America

(d) Other than Fold Mountains name other result and features of folding **(2mks)**

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d) Through aid of diagrams explain how the rift valley was formed through tensional forces **(5mks)**

**9.** (a) Define climate **(2mks)**

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(b) State factors influencing climate of a place **(4mks)**

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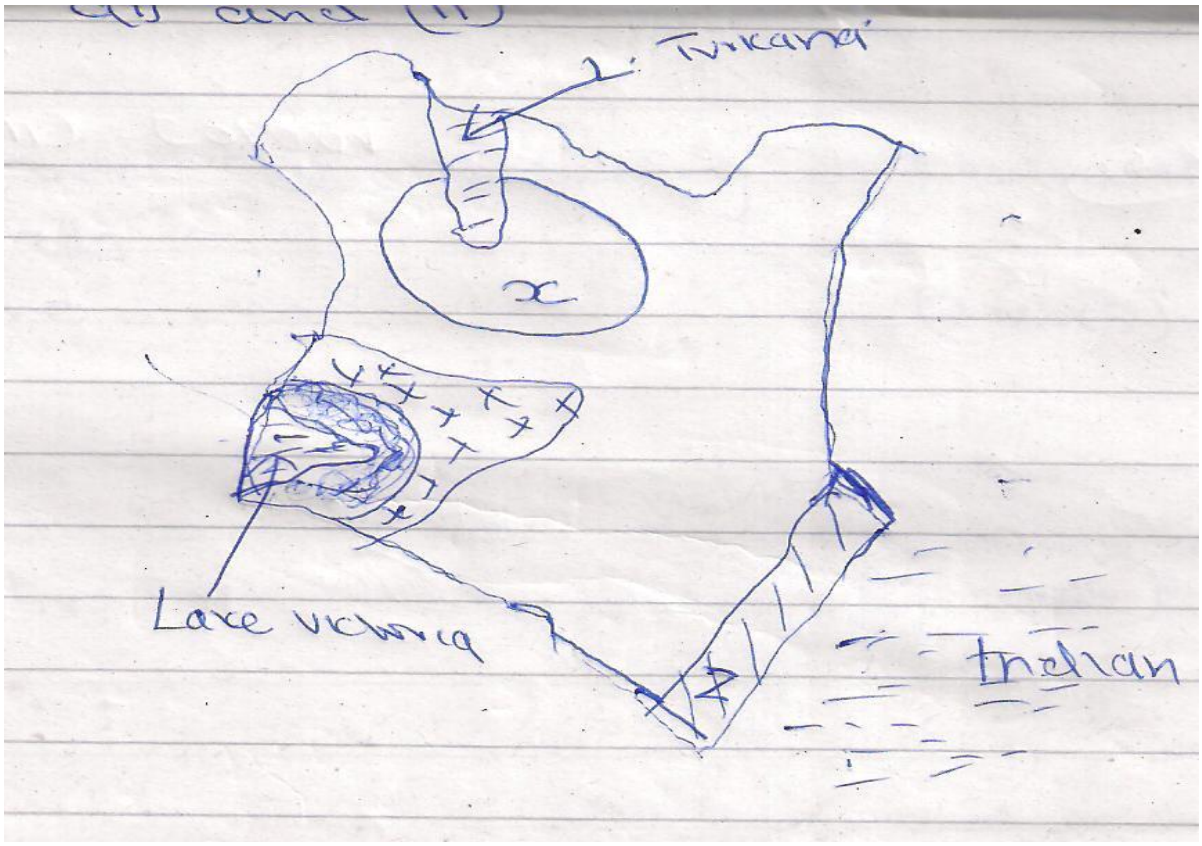
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**(c)**The Map below shows climate regions of Kenya . use it to answer questions below c(i) and (ii)




**(c) (i)** Name the climatic regions marked x and y **(2mks)**

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**(ii)** State four characteristics of the climatic region marked 2 **(4mks)**

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**10.** (a) What is a mineral **(2mks)**

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(b) Describe the following characteristics of minerals

(i) Lustre **(2mks)**

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**(ii)** Colour **(2mks)**

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**(c)** Name two examples of extrusive igneous **(2mks)**

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**11. (a)** Differentiate between Magma and Lava **(2mks)**

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**(b)** Name intrusive features of volcanicity **(3mks)**

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**(c)** Explain three ways in which volcanic features influence human activities **(6mks)**

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# FORM 2 ENDTERM 3 EXAMS

## (SERIES 2)

# KISWAHILI

## TIME: 2 HOURS

**NAME…… ADM NO……**

**SIGN……DATE;……**

**1. UFAHAMU (Alama10)**

***Soma kifungu kifuatacho kisha ujibu maswali***

Tokea muundo mpya wa serikali ya ugatuzi uanze kutekelezwa miaka miwili iliyopita, kumeendelea kushuhudiwa matatizo mengi hali iliyopelekea kushuhudiwa kwamsururu wa migomo na maandamano ya raia. Fujo za karibuni kabisa ni zile zinazoshuhudiwa katika miji mikubwa za wachuuzi na wafanyibiashara wakipinga hatua za serikali za kaunti kuwatoza ushuru takribani kwa kila huduma na bidhaa ikiwemo wanyama, kuku na ndege. La kuhuzunisha zaidi katika baadhi ya majimbo imeripotiwa kuwa raia wamelazimishwa kulipa ushuru kwa kutaka tu kuona maiti za jamaa zao kwenye vyumba vya kuhifadhi maiti.

Wanasiasa wameonekana kuwa na wakati mgumu kutetea mfumo huu mpya wa ugatuzi huku baadhi wakisema kwamba matatizo yanayoshuhudiwa kwa sasa yametokana na ugeni wa mfumo huo. Wengine wameinyoshea kidole serikali ya kitaifa kwamba ndiyo inayosambaratisha muundo huu. Wengine wanahoji kuwa bado ni mapema na kwamba kunatajika muda mrefu ili kufaulu.

Ni wazi kwamba kumekosekana nidhamu bora ya kusimamia maisha ya raia nchini Kenya. Matatizo yanayokumba raia kwa sasa ni dalili kuwa mfumo wa serikali ya ugatuzi umeongezea chumvi kwenye kidonda badala ya kutibu. Swali ni je, hadi lini nidhamu ya kusimamia raia itakuwa ni suala la majaribio na makosa?

Hatua ya kuwarundikizia raia ushuru mkubwa ni kitendo cha unyonyaji na cha dhuluma kinachofaa kupingwa. La kufahamishiwa hapa ni kwamba ushuru ndio njia kubwa ya kuzalisha mapato ya serikali zinazojifunga na mfumo wa kimagharibi wa kiuchumi wa kibepari ikiwemo Kenya. Asilimia 90 ya mapato ya serikali za kibepari huegemea ushuru. Kwa hivyo hatua ya serikali za kaunti katika kuwanyonya raia kwa kuwalipisha ushuru si ajabu bali ni thibitisho kuwa jamii ya Kenya inaongozwa na nidhamu ya kiuchumi ya ubepari mfumo wa unyonyaji na ukandamizaji.

Ukweli unabakia kuwa ndani ya serikali za kibepari raia ndio hubebeshwa mzigo wa ushuru unaoishia matumboni mwa viongozi!

Miito ya mabadiliko ya katiba na ya miundo mipya ya kiutawala si lolote ila ni moja tu ya hatua za mfumo wa kibepari kujipa muda wakuishi na kuziba aibu zake za kushindwa kusimamia maisha ya watu. Kufeli huku kwa mfumo huu kunashuhudiwa hadi kwenye nchi kubwa za kibepari kama Marekani na Uingereza hivyo nazo zimekumbwa tele na maandamano na fujo za raia wakilalamikia hali ngumu ya maisha.

**Maswali**

**a)** Yape makala haya anwani mwafaka. **(alama 1)**

_____

_____

**b)** Eleza mtazamo wa wanasiasa kuhusu utepetevu wa mfumo huu. **(alama 2)**

_____

_____

_____

**c)** "Ugatuzi nchini Kenya ni mfumo wa kibepari" Thibitisha kauli hii kwa kurejelea makala. **(alama 1)**

_____

_____

**d)** Migomo ni zao la matatizo yaliyogatuliwa kutoka kuu. Toa sababu nyingine zinazosababisha migomo katika serikali za ugatuzi **(alama 2)**

_____

_____

**e)** Thibitisha jinsi mfumo wa ugatuzi umeongeza chumvi kwenye kidonda badala ya kutibu **(alama 2)**

_____

_____

**f)** Eleza maana ya neno lifuatalo **(alama 2)**

Ugatuzi

_____

_____

## 3. SARUFI NA MATUMIZI YA LUGHA (Alama30)

a) Tofautisha sauti zifuatazo. **(alama 2)**

/a/

/u/

_____

_____

_____

_____

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

_____

_____

_____

ii) Maneno haya yamo katika ngeli gani? **(alama 2)**

Tunda

_____

___

Kipepeo

_____

___

c) Ainisha mofimu katika neno lifuatalo **(alama 3)**

Sikumkaribisha

_____

_____

_____

_____

_____

d) Andika kwa wastani **(alama 2)**

Magoma hayo yatachezwa mawanjani

_____

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_____

e) Tofautisha sentensi zifuatazo. **(alama 2)**

i) Baniani mwenyewe ni huyu.

ii) Baniani mwenye mali amelejea.

_____

_____

_____

f) Tunga sentensi ukitumia VIELEZI vya;na upigie mstari **(alama 3)**

a) wakati

_____

___

b) mahali

_____

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c) namna

_____

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g) Tunga sentensi kuonyesha maana mbili za neno chuma **(alama 2)**

_____

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4. **<u>ISIMU JAMII</u>** **(Alama 5)**

i)Eleza maana ya **Isimu Jamii** **(alama 1)**

_____

_____

____

ii)Eleza sifa nne za mazungumzo kati ya daktari na mgonjwa. **(alama 4)**

_____

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**5. FASIHI SIMULIZI**

(i)Eleza sifa sita za fasihi simulizi.

_____

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_____

(ii) Ushairi ni kwa malenga.Taja watendaji wa tanzu hizi.

Nyimbo _____

Hadithi _____

(iii) Tofautisha kati ya:

Hurafa na Hekaya

_____

_____

# FORM 2 ENDTERM 3 EXAMS

## (SERIES 2)

# MATHEMATICS

## TIME: 2 HOURS

**NAME…… ADM NO……**

**SIGN……DATE;……**

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

**1**. Two spheres have surface areas of $36cm^2$ and $49cm^2$. If the volume of the smaller sphere is $20.2cm^3$ calculate the volume of the larger one. **(3 mks)**

**2.** Using mathematical tables, evaluate: **(4 mks)**

$$\frac{5467 \times 0.3278}{\sqrt[5]{0.0894}}$$

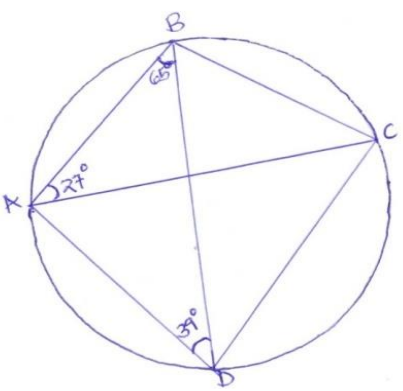
**3.** Simplify the expression below **(3 mks)**

$$\frac{6b + 2ab - 3a - a^2}{3a + 2ab - 6b - a^2}$$

**4.** If $4^{3y-4x} = 64$ and $3^y \div 9^x = 1$, solve for x and Y. **(3 mks)**

**5.** **A** straight line passes through point B(-2,1) and C(6,3). Find the equation of a line parallel to BC and passes through a point D(2,4). **(3 mks)**

6. In the figure below, angle CAB = 27°, angle ABD = 65° and angle DB = 39°. Find the size of angle CBD. **(3 mks)**



**7.** Common salt has a density of 2.2g/cm$^3$ while sand has a density of 3.2g/cm3. If 0.8kg of salt is mixed with 1.5kg of sand, find the density of the mixture. **(3 mks)**

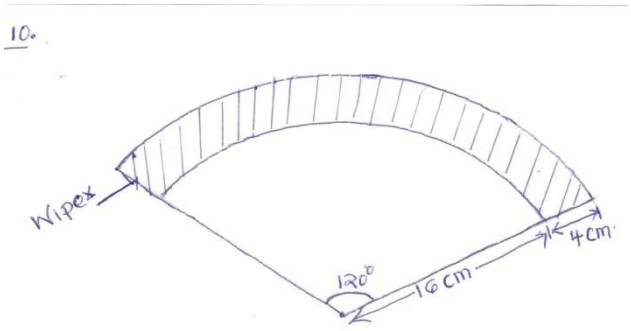
**8.** The volume of water in a measuring cylinder is 25.2cm$^3$. After a solid metal sphere is immersed into it, the measuring cylinder reads 29.4cm$^3$. Calculate the radius of the sphere. **(3 mks)**

**9.** Cos Θ = $\frac{1}{\sqrt{3}}$ where Θ is an acute angle. Without using mathematical tables, find;

(a) Tan ($90^o$ – Θ) **(1 mk)**

(b) Sin Θ in the form $\frac{\sqrt{a}}{\sqrt{b}}$ where a and b are integers. **(2 mks)**

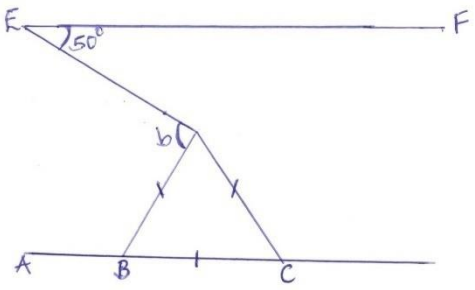
**10.** The shaded region in the figure below shows the area swept out on a flat windscreen by a wiper. Calculate the area of this region. **(3 mks)**



**11.** A triangular flower garden measures 10m, 15m and 24m. Find the area of the garden. **(3 mks)**

**12.** Triangle OAB is such that OA = a and OB = b. C lies on OB such that OC:CB = 1:1. D lies on AB such that AD:DB = 1:1 and E lies on OA such that OA:AE = 3:1. Find CD in terms of a and b**.(3 mks)**

**13.** Giving reasons, find the angle marked b, given that EF is parallel to AC. **(3 mks)**



## SECTION B: (30 MARKS)

***Answer any three questions in this section.***

**14.** The height (in cm) of some seedlings in a nursery are recorded in the table below.

| **Height (cm)** | 1.0 – 1.4 | 1.5 – 1.9 | 2.0 – 2.4 | 2.5 – 2.9 |
|---|---|---|---|---|
| **No. of seedlings** | 2 | 6 | 4 | 8 |

**(a)** State the median class **(1 mk)**

**(b)** Calculate the mean height of the seedlings in the nursery. **(4 mks)**

(c) On the grid provided, draw a histogram and a frequency polygon to represent the information. **(5 mks)**

15. On the graph paper provided, plot the triangle whose co-ordinates are A(1, 3) B(2, 1) and C(3, 4). **(1 mk)**

(a) On the same grid, draw;

(i) A'B'C' the image of ABC under an enlargement, centre (0,0), scale factor -1 and state its co-ordinates. **(3 mks)**

(ii) A"B"C" the image of A'B'C' under a rotation of $+90^{o}$ about origin. State the co-ordinates of A"B"C". **(3 mks)**

(iii) A'''B'''C''' the image of A''B''C'' under reflection in the line Y=x and state its coordinates **(3 mks)**

**16.** Three warships P,Q and R leave port X at 9.00 a.m. Ship P sails at a steady speed on a bearing of $070^{o}$, 100km from port X while ship Q sails on a bearing of $320^{o}$, 80km from port X. Ship R is on a bearing of 1500 from port X and due south of ship P.

**(a)** Construct a scale drawing to show the position of P, Q, R and X. **(4 mks)**

**(b)** Use the scale drawing to determine:

**(i)** The distance and bearing of ship P from ship Q. **(2 mks)**

**(ii)** The distance of ship R from port X. **(2 mks)**

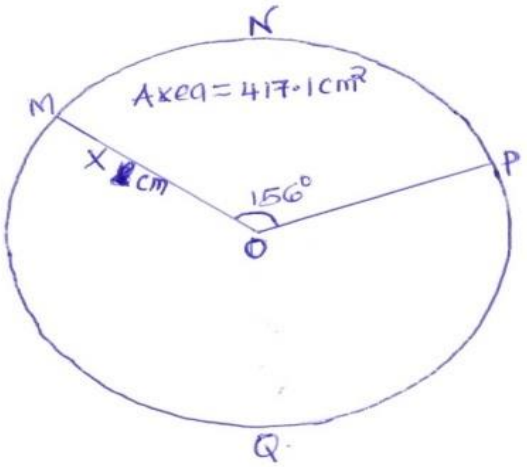
**(iii)** The distance of ship R from ship P. **(2 mks)**

**17. (a)** Use a ruler and a pair of compasses only to construct triangle ABC such that AB = 2.5cm, BC = 3.5cm and AC = 5.5cm. Measure < ABC. **(3 mks)**

(b) Drop a perpendicular from A to a point T on CB produced. Measure the length AT. **(3 mks)**

(c) With BT as the base, calculate the area of triangle ABT and triangle ACT. **(4 mks)**

**18**. The circle in figure below has a radius Xcm and centre O. Minor arc MNP subtends an angle of $156^o$ at the centre of the circle. Sector MNP has an area of $417.1cm^2$




(a) Taking $\pi = \frac{22}{7}$, find x. **(3 mks)**

(b) The major sector MQP is obtained from the circle and folded into a cone. Find:

(i) The radius of the cone's base. **(2 mks)**

(ii) The height of the cone. **(3 mks)**

(iii) The surface area of the cone. **(2 mks)**

# FORM 2 ENDTERM 3 EXAMS

## (SERIES 2)

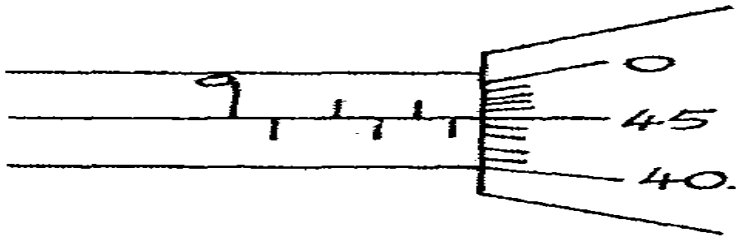
# PHYSICS

## TIME: 2 HOURS

**NAME…… ADM NO……**

**SIGN……DATE;……**

**1.** A student used the measuring instrument shown below to measure the thickness of a cylindrical wire, If the wire is 10cm long, find the volume of the wire. (3mks)

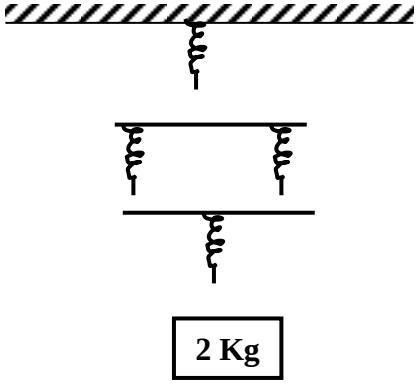



**(g)** The load carried by a truck loader was measured to be 65,000 grams. Convert the mass of the load into milligrams and express the answer in standard form**.** **(2 Marks)**

**(i)** A form one girl observed that when mercury is put into a glass it does not wet the glass. Explain the observations made by the girl. **(2 Marks)**

**(ii)** In using the lift pump to raise water from a bore hole. It is observed that practically the height the water is raised cannot be 10m and more. Give two reasons for this observation**.(2 Maks)**

**(iii)** When a mass of 2kg is hang from a single spring, the spring extends by a distance x. Determine the total extension in the set up below. **(2 marks)**




6. (a) State what is meant by streamline flow **(1 Mark)**

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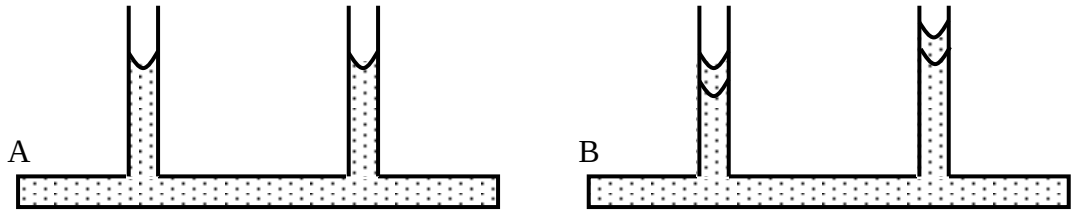
(b) The figure shows the cross section of an aeroplane wing, with the aeroplane moving in the direction shown by the arrow.



Sketch streamlines to show how air flows past the wing as the aeroplane moves

**(1 Mark)**

(c) The diagram below shows two horizontal pipes, A and B. Tube A contains liquid at rest while tube B contains liquid in motion.




(a) Liquid at rest (b) Liquid at motion

(i) Sketch graphs for (a) and (b) to show variation in pressure **(2 Marks)**

7, Explain why ethylated spirit at room temperature when dropped at the back of the palm makes the palm to feel very cold. **(2 Marks)**

……

……

……

**(v)** A block measuring 20cm by 10cm by 4 cm rests on a flat surface. The block has a weight of 6.0N. Determine:

(a) The minimum pressure it exerts on the surface. **(2 Marks)**

(b) The density of the block in $kg/m^3$. **(2 Marks)**

Take (g = 1N/kg)

- (a) State the kinetic theory of matter. **(1 Mark)**

……

……

……

(b) Why is smoke preferred for use in the smoke cell experiment**?** **(2 marks)**

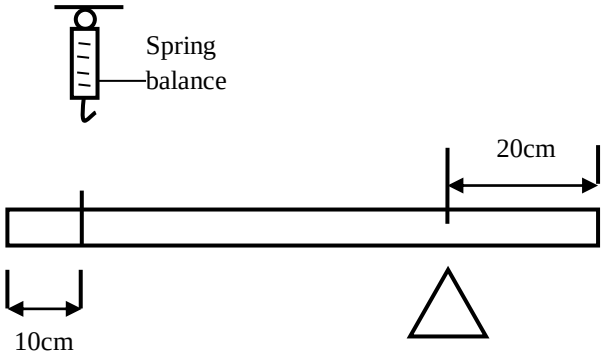
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(c). Explain the cause of random motion of smoke particles as observed in Brown Motion experiment using a smoke cell **(3mks)**

- In the figure 2 below shows a uniform bar of length 1.0M pivoted near one end. The bar is kept in equilibrium by a spring balance shown.

Figure 2




Given that the weight of the metre bar is 1.4N, determine the reading of the spring balance.**(3 Mrks)**

**11 .**State the property of light associated with formation of shadows **(1mk)**

**12**. .Explain why soft iron keepers are suitable for storing magnets **(2mks)**

**13.**Fig 1 below shows a conductor carrying current placed in the magnetic field of two magnets. Complete the diagram by showing the field pattern and the direction of force F that acts on the conductor

**(2mks)**

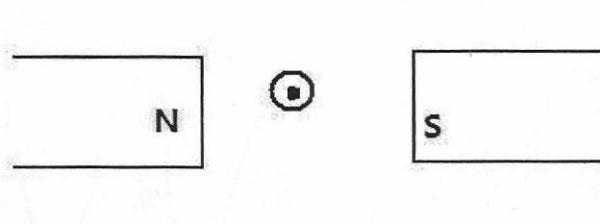



**Figure 1**

**14.**State two quantities that are used to determine whether accumulator require recharging or not **(2mks)**

**15**.The figure 2 below shows the image I, formed in a convex mirror. Complete the ray diagram to show the position of the object. **(2mks)**

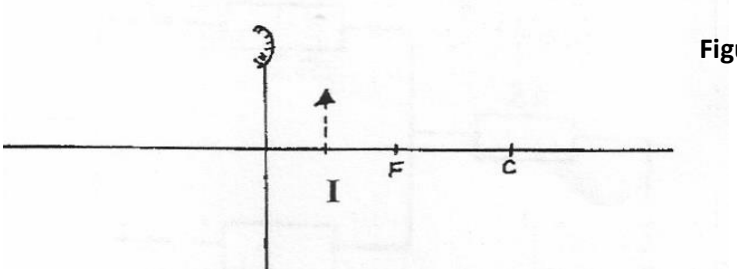



**Figure 2**

**Figure 3**

**16.**The figure below shows a displacement –time graph for a wave with a period of 0.5 seconds

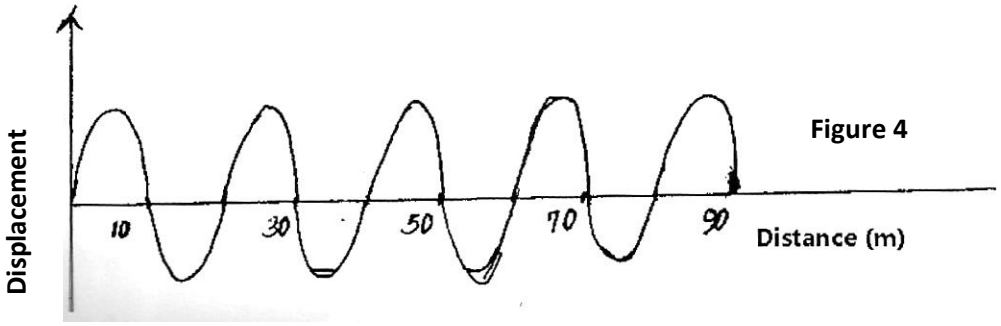
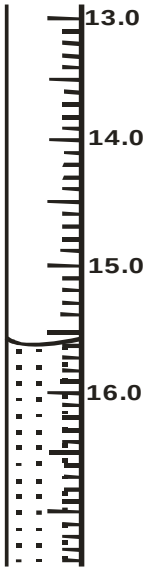



Figure 4

Calculate the velocity of the wave **(2mks)**

**6.** The figure below shows part of a burette scale after 200 drops of olive oil were run out. The initial reading of the volume was 15.5ml




**15.** Determine the volume of 200 drops. **(3 marks)**

**16.** When a single drop was allowed to spread on a careful prepared water surface it made a circular patch of diameter 31.0cm Use this information to determine;

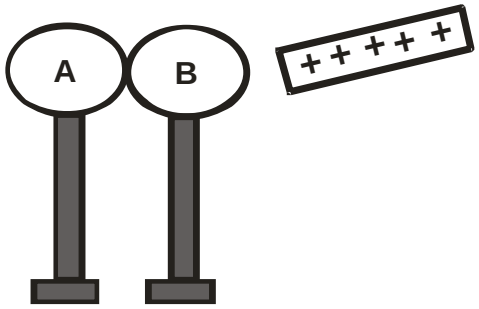
1. The area of the patch. **(3 marks)**

2. An estimate for the length of the olive oil molecules to three significant figures**.(3 marks)**

**17.** State **one** necessary assumption for the calculation in b(ii) above. **(1 mark)**

**7.** State any **two** differences between image formed by plane mirror and pinhole camera **(2 marks)**

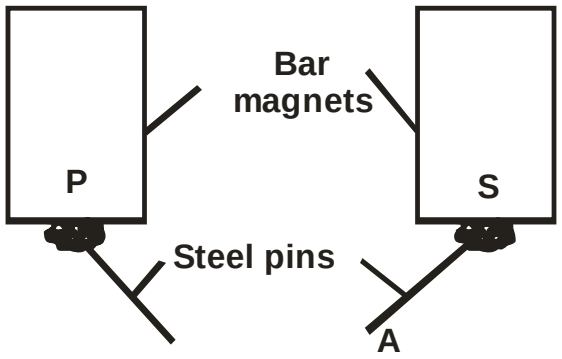
**8.** The diagram below shows a positively charged rod brought close to two metal spheres on insulating stands.



Describe how you would use the rod to charge the two spheres differently. **(2 marks)**

**9.** State **two** defects of a simple cell and how each can be corrected. **(2 marks)**

**10.** Figure 2 below shows two bar magnets holding steel pins and placed side by side.

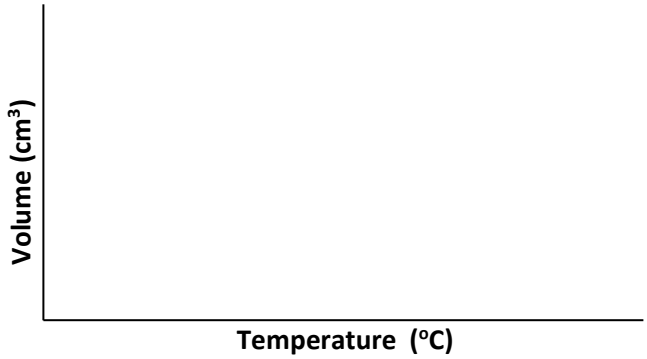



Identify the polarities of: **(2 marks)**

A

P

22. .(a) One the axis provided, sketch a graph of volume against temperature of water from $0^o$ to $20^oC$. (**2mks)**




(b)During anomalous expansion of water, heat transfer is limited to conduction and radiation only explain **(1mk)**

**11.** A student stands at a distance 400m from a wall and claps two pieces of wood. After the first clap, the student claps whenever an echo is heard from the wall. Another student starts a stopwatch at the first clap and stops it after the twentieth clap. The stopwatch records a time of 50 seconds. Find the speed of sound. **(3mks)**

**12.** A lawn sprinkler has 40 holes , each of cross-section area $2.0*10^{-2}$ $cm^2$.It is connected to a hose-pipe lof cross-section area 1.6 $cm^2$.If the speed of the water in the hose-pipe is 1.2 $ms^{-1}$,calculate:

**(a)** The flow rate in the hose-pip**e** **(2 mks)**

**(b)** The speed at which water emerges from the holes**.** **(3 mks)**

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