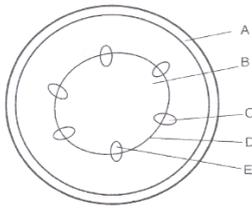**Form 2: Biology Holiday Assignment Term III 2018**

1. The diagram below represents a transverse section of a young stem.

a) Name the parts labelled **A** and **D**.   (2mks)

   A…………………………………………………
   D…………………………………………………

b) State the functions of the parts labelled.(3mks)
   B…………………………………………………
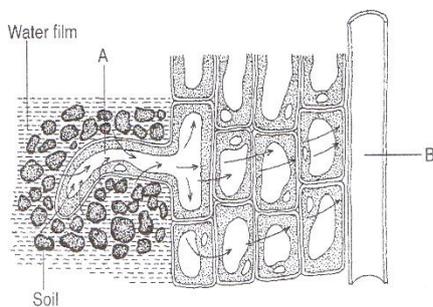   **C**…………………………………………………
   E…………………………………………………

c) List **three** differences between the section shown above and one that would be obtained from the root of the same plant.   (3mks)
   …………………………………………………………
   …………………………………………………………
   …………………………………………………

2. The diagram below represents the pathway of water from the soil into the plant.

a) Name the structure labelled **A** and **B**.
      (2mks)
   A…………………………………………………
   B…………………………………………………

b) Explain how water from the soil reaches the structure **B.**   (5mks)
   …………………………………………………………
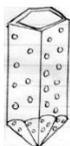   ………………………………………………………

c) Name the process by which mineral salts enter into the plant.   (1mk)
   …………………………………………………………

3. The diagrams below represent structures found in plants.

a) Identify the structure **Q** and **R**.   (2mks)
   Q…………………………………………………
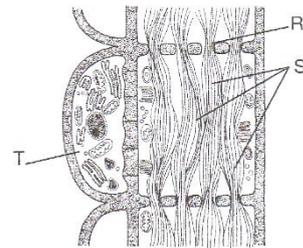   **R**…………………………………………………

b) State **two** functions of the structures. (2mks)
   …………………………………………………………

c) Outline **two** structural adaptations of structure **Q** to its functions.   (2mks)
   …………………………………………………………

4. The diagram below represents part of phloem tissue.

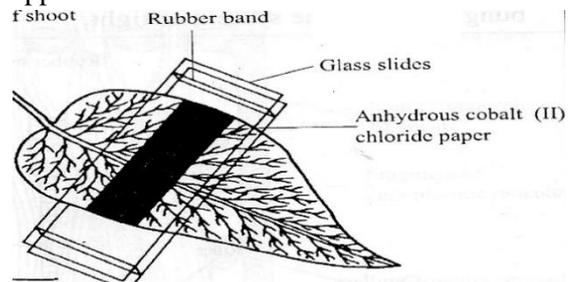a) Name the structures labelled **R** and **S** and cell labelled **T.**   (3mks)
   R…………………………………………………
   S…………………………………………………
   T…………………………………………………

b) State the function of the structure labelled **S**. (1
   …………………………………………………………

c) How is cell **T** adapted to its function? (2mks)
   …………………………………………………………

5. Form one student set up on apparatus as shown below to investigate a certain physiological process. Cobalt chloride paper was placed on upper and lower sides of the leaf.

a) What was the aim of the experiment?   (1mk)
   …………………………………………………………

b) State the expected observation after some times.
   .   (2mk)
   …………………………………………………………
   Account for the results in b (i) above. (2mks)
   …………………………………………………………

a) Differentiate between guttation and transpiration.
                (2mks)

…………………………………………………………………

b) Name **three** process in plants that maintains transpiration stream. (3mks)

…………………………………………………………

……………………………………………………

c) State **three** precautions that one should take when using a potometer to estimate the rate of transpiration. (3mks)

…………………………………………………………

…………………………………………………………

………………………………………………

6.

i. State **three structural features** by which plant leaves reduce the rate of transpiration. (3mks)

………………………………………………

………………………………………………

………………………………………………

ii. Explain why the rate of transpiration is reduced when humidity is high. (1mk)

………………………………………………

Form 2: Business Studies Holiday Assignment Term III 2018

1. What conditions would you ensure prevails in order to make a warehouse perform as expected?
2. Describe how Insurance can benefit a business organization and the country at large.
3. Discuss the principles of insurance.
4. Discuss ways in which products promotion assist businesses.
5. Discuss reasons why some business men prefer to operate their own warehouses.
6. Discuss the factors that should be considered when choosing a means of communication.
7. Discuss the importance of transport to business.

Form 2: Chemistry Holiday Assignment

1. The table below shows the number of valence electrons of the atoms of P, Q and R.

Element	P	Q	R
No. of valence electrons	3	5	20

a) Explain why **P** and **R** would not be expected to form a compound. (1mk)
b) Write an equation to show the effect of heat on the carbonate of R. (1mk)
c) Write the formulae for the most stable ion of Q. (1mk)

2. A student set-up the apparatus as shown below to prepare salt Y .Study it and answer the questions that follow.
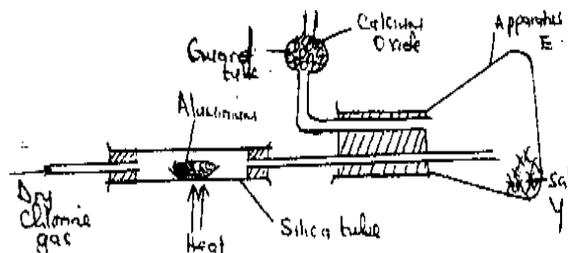

a) Name salt Y. (1mk)
b) Name the method of preparing salt illustrated in the set up above. (1mk)
c) What is the function of apparatus E? (1mk)
d) What is the role of the calcium oxide in the guard tube? (1mk)
e) Calcium oxide is preferred to anhydrous calcium chloride in the guard tube. Give **two** reasons for this. (2mks)
f) What property of Y makes it possible to be collected in apparatus E.? (1mk)

3. The flow chart below shows the preparation of carbon (II) Oxide and its reactions.
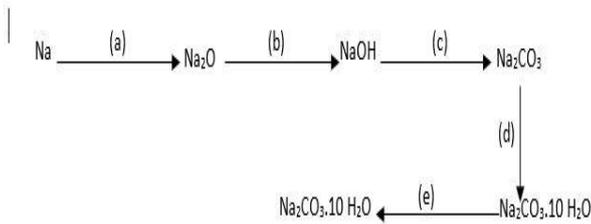
$$H_2C_2O_{4(S)} + H_2SO_4 \rightarrow Conc. KOH \rightarrow Heated\ CuO_{(s)} \rightarrow Product\ B\ \&\ C$$

a) Name the type of reaction taking place between $H_2C_2O_4$ concentrated H_2SO_4. (1mk)
b) Why is gaseous mixture passed through concentrated KOH? (1mk)
c) Write an equation for the production of B and C. (1mk)

4. A student set up the apparatus shown below to prepare and collect dry carbon (IV) oxide.
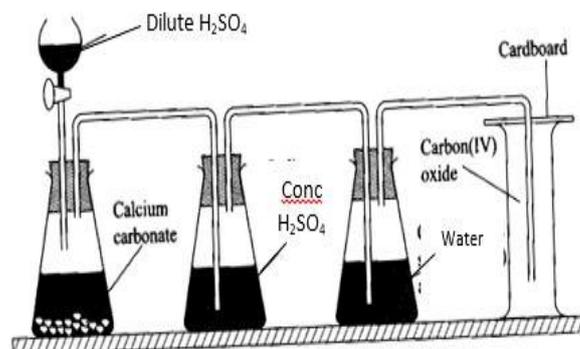

a) State a correction for the two mistakes in the set-up above. (3mks)
b) State **two** use of carbon (IV) oxide gas. (1mk)

5. When sodium metal is left exposed to the atmosphere it may undergo the following processes.

$$Na \xrightarrow{(a)} Na_2O \xrightarrow{(b)} NaOH \xrightarrow{(c)} Na_2CO_3$$
$$\downarrow {(d)}$$
$$Na_2CO_3.10\,H_2O \xleftarrow{(e)} Na_2CO_3.10\,H_2O$$

a) What substances are observed at.(3mks

i) _____

ii) _____

iii) _____

b) Name processes. (5mks)

i) _____

ii) _____

iii) _____

iv) _____

v) _____

6.

a) Briefly describe how nitrogen is extracted from air on large scale. (3mks)

b) State **two** uses of nitrogen. (2mks)

7. The structure of water molecules can be represented as shown below.
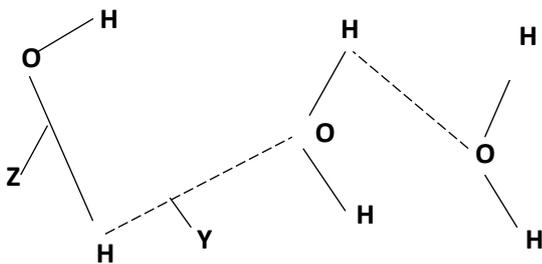

a) Name the type of bond represented by letters Y and Z. (2mks)

Y_____

Z_____

b) Relative molecular mass of methane and water are almost similar. However the boiling point of water is 100°C while methane is 161°C. Explain. (2mks)

8. The table below gives atomic numbers of elements represented by letters A, B, C and C.

Element	A	B	C	D
Atomic number	15	16	17	20

Use the information to answer the questions that follow.

a) Name the type of bonding that exists in the compound formed when A and D reacts. (1mk)

b) Select the letter which represents the best oxidizing agent. Give a reason for your answer. (2mks)

9.

a) An element X, contain90% of ^{16}X and 10% ^{18}X. Calculate the R.A.M of X. (2mks)

b) Element X has atomic number 9. Find the number of neutrons in the isotopes ^{16}X. (1mk)

10. Complete the following equations. (5mks)

a) $KNO_{3(s)} \xrightarrow{\text{heat}}$

b) $AgNO_{3(s)} \xrightarrow{\text{heat}}$

c) $Mg(HCO_3)_{2(aq)} \xrightarrow{\text{heat}}$

d) $Cu(NO_3)_2 \xrightarrow{\text{heat}}$

e) $ZnCO_{3(s)} \xrightarrow{\text{heat}}$

11. In an experiment, carbon (IV) oxide gas was passed over heated charcoal and the gas produced collected as shown in the diagram.
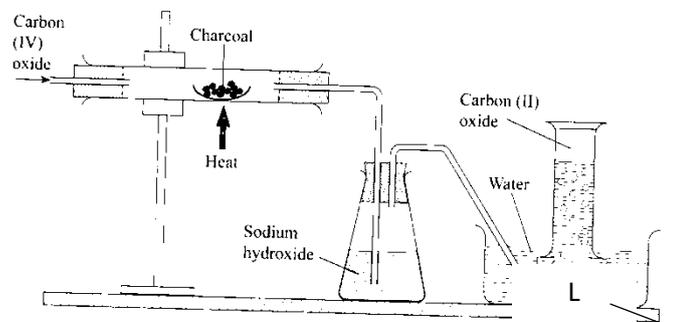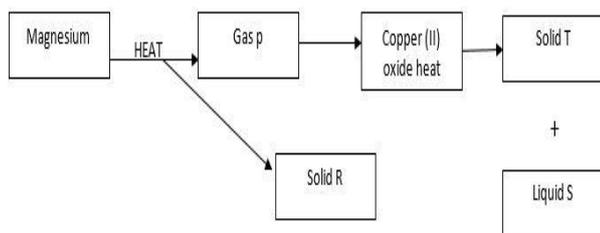

i) Name the gas produced, G. (1mk)

ii) Write an equation for the reaction taking place in the combustion tube. (1mk)

iii) State and explain the effect of gas **G** when it is passed over hot copper (II) oxide. Include the equations. (3mks)

iv) Name solution **L** and state its function.(1mk)

12. Use the chart below to answer the questions that follow.

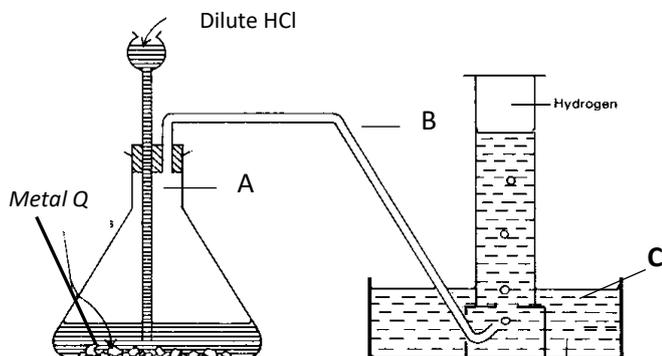Identify. (4mks)

Gas**P**_____

Solid **R**_____

Solid **T**_____

Liquid **S**_____

13. Why is it advisable to turn on a non- luminous flame while the flame is not in use? (1mk)

14. The diagram below shows laboratory preparation of hydrogen gas.

i) Name. (4mks)

A _____

B _____

C_____

ii) Metal **Q**_____

iii) Give **two** reasons why hydrogen is collected by the method shown. (2mks)

iv) Give **three** commercial uses of hydrogen gas. (2mks)

15. Draw and name the apparatus that you would use in separating of a mixture of kerosene and water. (2mk)

16. The following table gives the melting points oxides of elements in period 3. Study it and answer the questions that follow:-

Formula of oxide	Na_2O	MgO	Al_2O_3	SiO_2	P_4O_{10}	SO_3
Melting point (^{0}C)	1190	3080	2050	1730	560	-73

a) Explain the difference in the melting point of MgO and $P_4O_{10.}$ (2marks)

b) Name the compound in the above table that will dissolve both in dilute hydrochloric acid and dilute sodium hydroxide. (1mk)

17. Although water *(H₂O)* and hydrogen sulphide *(H₂S)* are simple molecules, water is liquid while H_2S is a gas at room temperature. Explain. (2mks)

_____**Water**

18. The table below shows some properties of substances **V, W, X** and **Z.** Study them and answer the questions that follow. Letters do not represent the actual symbols of the substances.

Elements	Solubility in water	Boiling point (^{0}C)	Electrical conductivity	
			Solid	Molten
V	Insoluble	2955	Good	Good
W	Soluble	1413	Poor	Good
X	Insoluble	-90	Poor	Poor
Z	Insoluble	4827	Poor	Poor

a) Which substance is likely to have giant atomic structure? Explain. (2mks)

b) Identify the particles responsible for conduction of electricity in V in solid and in molten states. (1mk)
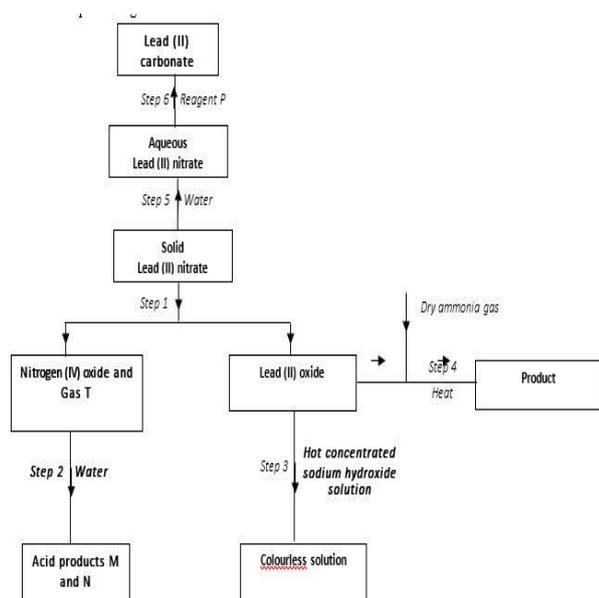
Solid state_____

Molten state _____

c) Which substance has electrovalent bond? Explain? (2mks)

d) Which substance is a gas at room temperature? (1mk)

19. The following flow-chart shows some reactions starting with lead (II) nitrate. Study it carefully and then answer the questions given thereafter:

a)

i) Write the condition necessary for Step 1 (1mark)

ii) Identify the reagent P, Gas T and acid products M and N:
Reagent P: (1mark)
Gas T: (1mark)
Acid product M. (½mrk)
Acid product N. (½mrk)

iii) What property of lead (II) oxide enables it to react as per Step 3? (1mark)

iv) Write the chemical equation for the reaction in Step 3. (1mark)

v) Write the chemical equation for the reaction in Step 4. (1mark)

b) The reaction between lead (II) oxide and dilute sulphuric (VI) acid starts but stops immediately. Explain. (1mark)

c) Name a suitable reagent that can be reacted with concentrated sulphuric (VI) acid to produce nitric (V) acid. (1mark)

d)
1. Starting with lead (II) oxide, describe how a pure solid sample of lead (II) sulphate can be prepared in the laboratory. (2marks)
2. How can one determine whether the lead (II) sulphate prepared is pure? (2marks)

Form 2: CRE Holiday Assignment

1. **a)** Explain why Elijah was uncompromising in his attitude to Baal worship
   b) What problems were faced by Prophet Elijah in Israel?
   c) State **six** reasons why Christians should fight against the spread of devil worship in the society

2. **a)** Identify the areas of conflict between Jesus and Jewish religious leaders
   b) State ways in which disciples of Jesus showed their support to his ministry
   c) Identify the obstacles faced by Christian leaders as they do their work

3. **a)** Describe what happened to Jesus from the time of his arrest to his death on the cross
   b) Luke 22: 47- Lk 23:48
   c) Give **five** reasons why it was difficult for the disciples to believe that Jesus had resurrected
   d) Outline the importance of resurrection of Jesus to Christians today

4. **a)** Describe the events that took place when Jesus was put on the cross Lk 23:33-46
   b) Give **five** reasons why Jesus was sentenced to death by Pilate and yet he was innocent
   c) What is the importance of Jesus death to Christians today

5. **a)** Outline **four** reasons why Jesus used bread and wine during the last supper.
   b) Identify lessons Christians learn from the crucifixion of Jesus.

NB: _80% Will of 2019 Entry Cat Will Come From Holiday Assignment_
Merry X-Max

Form 2: English Holiday Assignment

1. Revise the format of the following items of functional writing.
   i) Informal letter
   ii) Packing list
   iii) Notice
   iv) Poster
   v) Advertisement

2. **Cloze Test.**
   Experts have likened taking breakfast _____ (1) fueling an activity that gives the body the nutrients it _____ (2) to function properly. Eating breakfast not _____ (3) aids in weight management but also fuels the body to help provide energy, better concentration and problem solving ability _____ (4) the day. Jump starting the day with breakfast benefits _____ (5) children, teens and adults. _____ (6) show that children who eat a good breakfast do better in school _____ (7) those who do not.

Breakfast is the first chance the body has to refuel _____ (8) glucose level, also known as blood sugar after eight to twelve hours _____ (9) a meal or snack. Glucose is essential for the brain and is the _____ (10) energy source.

3. Oral Skills

a) For each of the following words, write another word that is pronounced the same way.

    i) Fowl _____

    ii) Key _____

    iii) Tea _____

    iv) None _____

    v) Heir _____

b) Underline the syllable that would be stressed in the following words to give the meaning indicated in the brackets.

    i) Record (verb)

    ii) Conduct (noun)

    iii) Contest (noun)

    iv) Absent (adjective)

    v) Dance (noun)

c) Indicate whether you would use a rising or falling intonation.

    i) What a tragic experience that was!
    _____

    ii) Could I come with you, please
    _____

    iii) Why did you oversleep?
    _____

    iv) My younger sister has identical twins.
    _____

    v) You actually saw the pyramids?
    _____

4. Read the novel, **blossoms of the Savannah**, by Henry Ole Kulet, Chapter 6 – 18.

Form 2: Geography Holiday Assignment

1.

a) What is a photograph?

b) Identify the nine parts of a photograph using well labeled diagram.

c) Name the main types of photographs.

d) Identify the minor types of photographs.

e) For each of the five minor types of photographs you have mentioned in 1(d) above, state three characteristics.

Form 2: History Holiday Assignment

Answer all the questions

1. Identify the type of artifact that is likely to be found in an archaeological site

2. Name one source of information on the Creation Theory

3. State two ways in which the Sumerians in Mesopotamia reclaimed land for agriculture.

4. Give the main form of transport used in the Trans-Saharan Trade.

5. Name two groups of people that were involved in the Trans-Atlantic Trade.

6. State two negative-effects of the development of motor vehicle transport

7. Give two inventions that revolutionized the textile industry in Britain during the 18th Century.

8. Identify the main factor that contributed to growth of Athens in Ancient Greece.

9. State two European activities in Africa before 1850.

10. Given two limitations of using anthropology as a source of information on History and Government.

11. Identify one community in Kenya which belongs to the Southern Cushitic group.

12. Name Bantu groups which settled in Mount Elgon area before migrating to their present homeland.

13. State two religious functions performed by Oloibon of the Maasai during the pre-colonial period.

14. Give two factors that enabled the early visitors to come to the Kenyan coast by 1500 A.D.

15. Name one Arab family which ruled the Kenyan coast on behalf of Oman.

Form 2: Home Science Holiday Assignment

1. Describer the procedure of taking the following body measurements

a) Waist measurements.
b) Full length of a medium length dress.
2. State three points to consider when choosing a fabric to make an apron.
3. Give three reasons for pressing during garments construction.
4. State four advantages of using commercial paper patterns.
5. Identify three methods of transferring pattern markings when making an apron.
6. List down three types advertisement and 3 forms of advertisements.
7. Explain two negatives and 2 positive effects of advertisements to a consumer.
8. Define the following terms as used in consumer education.
   a) Goods
   b) Services
   c) A consumer
   d) Consumer education
9. State four sources of consumer information.
10. Explain the role played by the following government bodies in protecting the consumers
    a) Kenya Bureau of Standards
    b) The weights and Measures Department
    c) The Price Control Department.
11. Explain five points on how obesity can be prevented.
12. List down five symptoms of Kwashiorkor and Diabetes mellitus.
13. List down any other three lifestyle diseases.
14. Differentiate between essential and non-essential amino acids
15. Explain five points to remember when cooking green leafy vegetables in order to conserve nutrients

Form 2 Kiswaili Kidato Cha Pili (Kazi Ya Likizo)

1. **TUMBO LISILOSHIBA**
   Namna ulivyoelekezwa darasani na mwalimu wako **Chambua maudhui, sifa na umuhimu wa wahusika na mbinu za lugha** zinazojitokeza katika hadithi zifuatazo: **Ndoto ya Mashaka, Mapenzi Kifaurongo, Shogake Dada ana Ndevu, Mame Bakari, ,Mtihani wa Maisha na Mkubwa** kisha **uandike matini kwenye vitabu nyenu.**
   a) Uandike mukhtasari wa hadithi zifuatazo:
      Tumbo Lisiloshiba

**Masharti ya Kisasa
Kidege
Nizikeni Papa Hapa na
Mwalimu Mstaafu.**
b) TANBIHI:
▪ Matini ya maudhui, sifa na umuhimu wa wahusika na mbinu za lugha na mukhtasari uandikwe bila **kutumia mwongozo wowote** (soma uelewe kisha uandike utatumia mwongozo **utairudia kazi hii turudipo** shuleni mwaka ujao)
▪ Mtihani wa kiingilio 2019 utakuwa **Karatasi ya 102/3**

## Form 2: Music Holiday Assignment
Term 3 2018
Instructions:

Use manuscript paper for questions 1, 2 and 7

Answer all the questions provided
1. Compose your own two eight bar melodies one in simple time the second in compound time.
2. Write the major and minor triads of E flat Major and A Major.
3. Translate the melodies composed in question one into solfa notation.
4. Write any four musical terms related to tempo.
5. Write any four musical terms related to dynamics.
6. Write any four musical terms related to expression.
7. Using the treble and the bass clef write Chords I,ii,iii,IV,V,vi.
8. Name the groups in each of the four Major categories of African traditional
Musical instruments.
9. Identify the major characteristics of Classical era of music,
10. Identify four types of musical forms used in Western music.
11. Identify factors that have affected the performance of African traditional music.

Form 2 Physics Holiday Assignment Term 3 2018

1. The figure below shows the change in volume of a liquid in a measuring cylinder when an irregular solid of mass 540g is immersed in it.
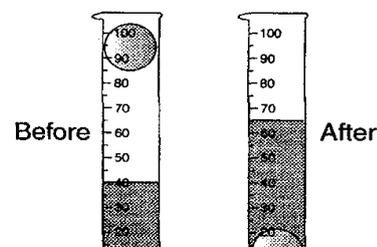
Determine the density of the solid in g/cm^3 (2mk

2. The figure below shows a millimetre scale placed in a position to measure the length of a block. An observer takes readings of the width of the block. If the block was placed between B and F. what was its width in m.   (2mk)
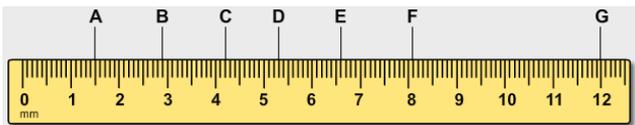
3. State **two** laws of reflection.   (2 mks)

4. Explain why a glass container with thick glass walls is more likely to crack than one with a thin wall when a very hot liquid is poured into them.
    .   (2mks)

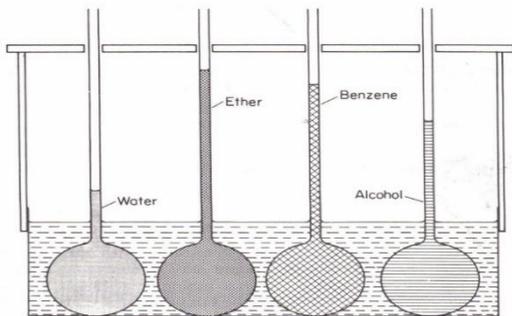5. The figure below shows a set up used to study expansion of liquids.

Fig. 15.12. Comparison of expansion

If the initial level was the same. State and explain the observation made after some time

6. State the function of the construction in a clinical thermometer   (1 mark)

7. State two properties of images formed in a pin-hole camera.   (2 marks)

8. The device shown below was used to measure the pressure of air in a compartment. If the height of air column was 2m and h= 75 cm. calculate the density of air given that density of mercury is 13.6 g/cm^3.   (2 marks)
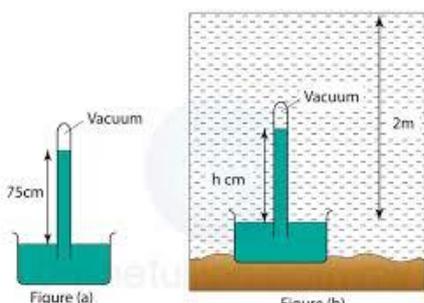

Figure (a)

Name the device…………………………

9. The figure below shows two mirrors inclined at an angle Θ to each other. Calculate the angle Θ (3mks)
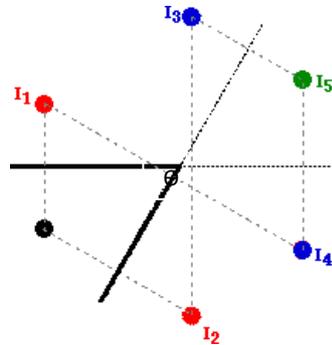
10. What is the purpose of a translucent screen on the pin-hole camera?   (1 mark)

11. Water is known to boil at 100°C. A student heated some water and noticed that it boiled at 101°C. State one possible reason for this observation
                        (1 mk)

12. A wooden bench and a metal bench are both left in the sun for a long time. Explain why the metal bench feels hotter to touch.

13. a) Define absolute zero temperature

    b) The diagram below shows a diagram on fire alarm. Explain how it works
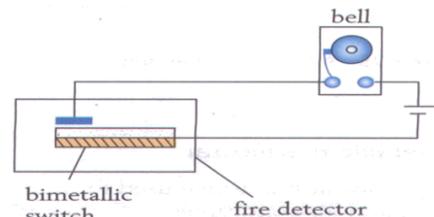
    c) Why is heat transfer by radiation faster than convection?   (2 mks)

    d) The temperature of water in a measuring cylinder is lowered from 20°C to 0°c. On the axes below, sketch the graph of volume against temperature assuming the water does not freeze.

    e) The ice and steam points of an ungraduated thermometer are found to be 192 mm apart. What is the temperature in Kelvin when the length of the mercury thread is 67.2 mm above the ice point?   (_mark)

f) Explain one situation where the anomalous expansion of water is advantageous.(2 mks)

14. a) Define the term density and state its SI units
(2mks)

b) Bronze is made by mixing molten copper and tin. If 100 kg of the mixture contains 40% by mass of tin. Determine the density of bronze. The density of copper is 8900 kg/m^3 and that of tin is 7000 kg/m^3

c) Explain why displacement method cannot be used to determine the volume of a piece of sponge. How would you measure the volume of an irregular shaped piece of sponge?

15. a) What is an eclipse? (1 mark)
b) The photographic film of a pinhole camera is 20 cm away from the pin hole. A tree of height 16 m stands 8 m from the opening of the pin-hole. Find the height of the image of the tree.
(3 marks)
c) Give **one** evidence of rectilinear propagation of light (1 mark)
**d)** State **two** properties of images formed by plane mirrors (2 marks)
e) A girl stands 3.0 m in front of a plane mirror. Calculate the distance between the girl and her image

16. a) Explain why ventilations for a room are put near the roof and not near the floor (1mk)
b) How is heat loss through the three modes of heat transfer minimized in a vacuum flask? (3mks)

17. a) State the pascal principle……………………
**b)** The figure below represents hydraulic brake system
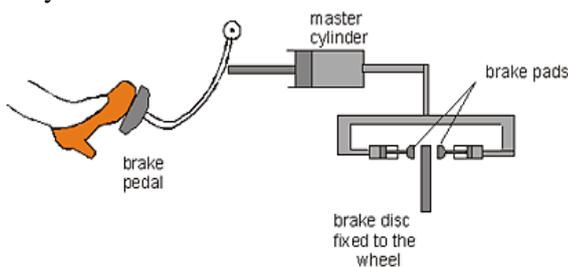
18. A force of 20N is applied on the foot pedal, connected to a piston of area 0.005 m^2. If the slave piston has an area of 0.01m^2 Find
a) Pressure in the master cylinder. (3 marks)
b) Force on the slave piston (3 marks)

c) Name two properties of oil that makes it suitable for the above purpose. (2 marks)
d) The figure below shows a manometer attached to a gas supply. If the atmospheric pressure is 1.0336 x 10^5 Pa. Calculate the pressure of the gas supply. (Density of mercury =13600kg/m^{-3}) .
(3 marks)
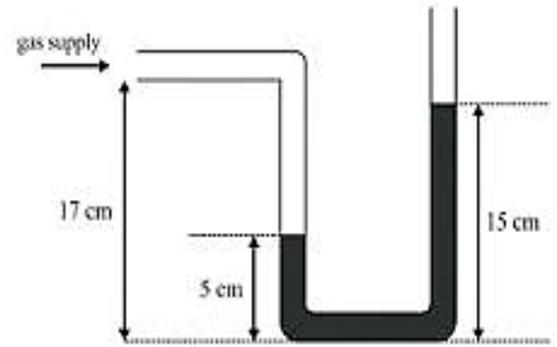
Forme 2: Devoir Pour Les Vacances-2018

EXPRESSION ECRITE
1. (**Use the internet to research-** get recipe cut outs in French- Write a recipe in French using the format given)

Ecrivez **la recette** d'un plat traditionnelle que vous aimez.

2. Ecrivez une lettre à votre ami pour lui parler des projets **de vos prochaines vacances.**

3. Vous rencontrez un(e) touriste français(e). Il/elle est perdu(e) et demande le chemin. Donnez-lui le chemin et précisez-le.

EXPRESSION ORALE
UTILISER INTERNET POUR FAIRE LES NOTES
Préparez les notes sur les sujets suivants :

1. Quelles sont les attractions touristiques au Kenya .Enumérez 5.

2. Quels sont les moyens de transport au Kenya. Lequel préférez-vous utiliser et pourquoi ?

3. Quel est l'importance d'étudier le français ? Mentionner 3 importances.

4. Mentionnez 5 sports joués dans votre école. Quels sports sont pratiqués dans votre école.

5. Qu'est-ce que vous aimez faire quand vous êtes libre ?

NOTEZ: **Vous allez passer un examen oral au début de trimestre. Joyeux Noel et meilleurs vœux de nouvel an ! Bonnes Vacances !**

2. State three sources of water in an animal's body

3. State four mineral deficiency disorders in livestock animals

4. Differentiate between maintenance ratio and production ratio

5. A farmer wishes to prepare 100kg of dairy ration containing 40% crude protein. He has maize meal containing 30% crude protein and Desmodium cake containing 60% crude protein. Using the Pearson's Square calculate the

6. Outline:
   i) Five harmful effects of parasites
   ii) General symptoms of parasite infestation

7. Describe the lifecycle of a two cycle tick

8. Outline control measures against parasites

9. Describe the lifecycle of liver-fluke

Form 3: Art Holiday Assignement
Term 3 2018

1. Summarize all your notes.

2. Montage

On an A3 space create a pictorial composition using the montage technique. Use the principles of art appropriately to design using **any** of the following topics.

- Effects of Chid Rights.
- Desertification.
- Pollution.
- Environmental conservation.

3. Using a tapestry mat measuring 40cm by 50cm use the ghiordes technique to weave a bedside rug for a teenage girl in three colours.

Form 2: Mathematics Holiday Assignment
Term 3 2018

Form 2: Computer Holiday Assignment
Term 3 2018

1. Describe different ways to keep your computer working properly.

2. Explain the importance of backing up your data and having antivirus software.

3. What are the benefits of database management.

4. Explain why relational database are the most commonly used DBMS

Form 2: Agriculture Holiday Assignment
Term 3 2018

1. State four microbial activities that take place in the rumen of a cow