**Name: ……………………………………………………… ADM No: ….….……..………..……**

 Class………….………………

 Date: ……………….…………………………..

**CHEMISTRY**

**FORM ONE**

**CAT I TERM TWO, MAY 2019**

**Time: 2 Hours**

**RANJIRA MIXED SECONDARY SCHOOL**

 **CAT I TERM TWO EXAMS FORM ONE 2019**

***Kenya Certificate of Secondary Education (K.C.S.E)***

***(60 marks)***

**INSTRUCTIONS TO CANDIDATES:**

* Write your **name** and **Admission number** in the spaces provided above.
* Write the class and date of examination in the spaces provided above
* Answer **all** the questions in the spaces provided.
* Students must answer all the questions in English
* This paper consists of 7 printed pages. Student should check to ascertain that all pages are printed as indicated and that no questions are missing.

**For Examiner’s Use only:**

|  |  |  |
| --- | --- | --- |
| **QUESTION** | **MAXIMUM SCORE** | **CANDIDATE’S SCORE** |
| 1 – 23 | **60** |  |

1. Name any one types of mixtures (1mk)

………………………………………………………………………………………………………………………………………………………………………………………………

1. Give the method of separation of the following mixtures: (2mks)
2. Water and ethanol

………………………………………………………………………………………

1. Sodium Chloride and Ammonium Chloride

……………………………………………………………………...

1. Give any one branches and one roles of chemistry in the society. (2mks)

 Branches:

………………………………………………………………………………………………

Role:

……………………………………........................................................................................................................................................................................................................................

1. Give any one reasons why most laboratory apparatus are made of glass (1mks)

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1. (a) Give two characteristics of temporary chemical change. (2mks)

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(b) Give any one example of temporary physical changes (1mk)

………………………………………………………………………………………………………………………………………………………………………………………………………………

1. Give the functions of the following apparatus: (2mks)
2. Reagent bottle.........................................................................................
3. Tongs...........................................................................................................

 Draw a deflagrating spoon. (1mk)

1. Wooden splints **F** and **G** were placed in different zones of a Bunsen burner flame.

 The diagram below gives the observations that were made

**G**

**F**

Burnt parts

Burnt part

1. Explain the difference between **F** and **G (1mk)**

……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………..

1. Name the type of flame that was used in the above experiment (1mk)

………………………………………………………………………………………………………………………………………………

1. What do the experiments show about the outer region of the flame? (1mk)

…………………………………………………………………………………………………………………………………………………………………………………....

1. (a) When the air-hole is fully opened, the Bunsen burner produces a non-luminous flame.

 Explain. (1mk)

……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

(b)Draw a labelled diagram of a non-luminous flame (2mks)

9. (a) State two differences between luminous flame and non-luminous flame (2mk)

|  |  |
| --- | --- |
| Luminous | Non-Luminous |
|  |  |
|  |  |

 (b) It is advisable to set a Bunsen burner to luminous flame prior to an experiment.

 Explain (1mk)

………………………………………………………………………………………………………………………………………………………………………………………………………………

12. A mixture of oil and water was shaken and left to separate as shown in the diagram below:

**oil**

**W**

Name the method of separation……………………………………………………………………… (1mk)

 13. Give a reason why a luminous flame is not used for heating purposes (1mk)

………………………………………………………………………………………………………………………………………………………………………………………………………………

14. Name the process which takes place when Carbon (IV) oxide gas changes directly into solid carbon (iv) Oxide (Dry ice). (1mk)

………………………………………………………………………………………………………………………………………………………………… 15. State the observations made when iodine crystals is heated in a boiling tube? (1mk)

………………………………………………………………………………………………………………………………………………………………………………………………………………

1. The diagram below shows the relationship between the physical states of matter.Study it and answer the questions that follows.



1. Identify the process R and W ( 2 mks)

R……………………………………………………………………………………………………………………………………………………

W…………………………………………………………………………………………………………………………………………………

1. Name two substances which can undergo the process represented by process S and T. ( 2mks)

……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………….

16. Name any one apparatus that are used to measure accurate volume of liquids. ( 1mks)

………………………………………………………………………………………………………

17.The diagram below shows the heating curve of a pure substance. Study it and answer the questions that follow:

1. What is the physical state of the substance at points Y (1mk)

……………………………………………………………………………………………

 (b) What is the Boiling point of the substance? (1mk)

………………………………………………………………………………………………………

(c) State and explain what happens in the following regions: (4mks)

BC………………………………………………………………………………………………………………………………………………………………………………………………………

CD………………………………………………………………………………………………………………………………………………………………………………………………………..

18. a) What is chromatography? (1mk)

………………………………………………………………………………………………………………………………………………………………………………………………………………

 b) Give two applications of chromatography (2mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………….. c) The chromatography below shows the constituents of a flower extract using an organic solvent:-

(i) Name a possible solvent you can use for this experiment. (1mk)

...............................................................................................................................................

 (ii) State one property that makes the red pigment to move the furthest distance from M

 (1mk)

………………………………………………………………………………………………………

 (iii) On the diagram indicate solvent front (1mk)

19. Define the following terms giving an example in each case. ( 2mks)

1. Element…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………
2. Compound……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………….........................................................................................................................................................

20. Describe how you would separate a mixture of salt, sand and iodine into different components

 ( 3mks)

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1. State the two causes of accidents in a Chemistry laboratory. ( 1mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………….

1. Classify the following processes as either temporary or Permanent process type of change

 ( 2mks)

1. Heating hydrated copper(ii) sulphate crystals…………………………………………………………………………
2. Obtaining Kerosene from crude oil…………………………………………………………………………………………
3. Souring of milk…………………………………………………………………………………………………………………………
4. Melting a candle wax……………………………………………………………………………………………………………….
5. a) Fill in the table bellow ( 3mks)

|  |  |  |
| --- | --- | --- |
| Element | Latin Name | Symbol |
| Sodium |  |  |
|  | Plumbum |  |
|  |  | Hg |

1. Name the elements presents in the following compounds ( 2mks)
2. Calcium Hydrogen sulphate
3. Lead Nitrate
4. Write a chemical word equation for Lead and bromine as reactants (1mk)

***E.N.D***

*‘’* let’s us walk chemistry, talk chem and practice chem’’ *regards….sir\Alex*