

Student's Assessment Number.....

**TAHOSSA KINONDONI AND UBUNGO DISTRICTS  
NON-GOVERNMENT SECONDARY SCHOOLS  
FORM TWO MOCK ASSESSMENT**

**032****CHEMISTRY****Time: 2:30 Hours****Year: 2022****Instructions**

1. This paper consists of sections A, B and C with a total of **ten (10)** questions.
2. Answer **all** questions in sections A and B and **two (2)** questions from section C
3. Section A carries **twenty five (25)** marks, section B **forty five (45)** marks and section C carries **thirty (30)** marks.
4. All writing must be in the spaces provided
5. Cellular phones, calculators and any unauthorized materials are not allowed in assessment room.
6. Write your **Assessment Number** at the top right corner of every page.

<b>FOR ASSESSOR'S USE ONLY</b>		
<b>QUESTION NUMBER</b>	<b>SCORE</b>	<b>ASSESSOR'S INITIALS</b>
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
<b>TOTAL</b>		
<b>CHECKER'S INITIALS</b>		



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**SECTION A (15 Marks)**Answer **all** questions in this section

1. For each of the items (i) –(x), choose the correct answer from the given alternatives and write the letter in the box provided.

(i) What is the best way of keeping a clean test tube after use?

- A. Keeping it in water
- B. Keeping it in a test tube holder
- C. Keeping it in a basin for test tube
- D. Keeping it on a test tube rack

(ii) What happens when substance A react with substance B to form a new substance C?

- A. Substance A and B are said to have formed a solution
- B. Substance A and B are said to have undergone a physical change
- C. Substance A and B are said to have undergone a chemical change
- D. Substance A and B are said to have undergone a dissolution

(iii) Which state is involved when drying wet clothes?

- A. Liquid to solid
- B. Solid to gas
- C. Gas to liquid
- D. Liquid to gas

(iv) You are a person who is selling Kerosene, but you want to use your kerosene to make the fire, which other two components are required to complete making the fire?

- A. Oxygen and fuel
- B. Oxygen and heat
- C. Oxygen and carbon dioxide
- D. Oxygen and hydrogen

(v) Which of the following can be classified as a renewable source of energy?

- A. Coal
- B. Petroleum
- C. Biomass
- D. Biodiesel

(vi) Which of the following is true about water gas?

- A. It is poisonous
- B. Is the same as producer gas
- C. Contains hydrogen and nitrogen
- D. Contains carbon monoxide and hydrogen

(vii) One of the following substances turns anhydrous copper (II) sulphate from white to blue.

- A. Carbondioxide
- B. Lime water
- C. Water
- D. Oxygen

(viii) The volume of distilled water is measured by different apparatus. Which of the following apparatus is used to measure the fixed volume ( $20\text{cm}^3$ ) of distilled water in the laboratory?

- A. Beaker
- B. Small measuring cylinder
- C. Pipette
- D. Burette

- A. Petroleum jelly  
B. Antibiotic solution

C. Nitric acid  
D. Potassium permanganate

10

- |    |                  |                  |                  |
|----|------------------|------------------|------------------|
| A. | $\frac{18}{8}X,$ | $\frac{16}{7}X,$ | $\frac{19}{10}X$ |
| B. | $\frac{18}{9}X,$ | $\frac{18}{9}X,$ | $\frac{18}{10}X$ |
| C. | $\frac{16}{8}X,$ | $\frac{18}{8}X,$ | $\frac{19}{9}X$  |
| D. | $\frac{16}{8}X,$ | $\frac{17}{8}X,$ | $\frac{18}{8}X$  |

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- | <b>List A</b>  | <b>List B</b>         |
|--|-----------------------|
| (i) Positively charged particles in the nucleus of an atom.                  | A. Atom               |
| (ii) Negatively charged particles rotating around the nucleus of an atom.    | B. Nucleons           |
| (iii) Neutral charge particle in the nucleus of an atom.                     | C. Neutrons           |
| (iv) Protons and neutrons in the nucleus of an atom.                         | D. Shells             |
| (v) Is a path or way in which electrons are orbiting the nucleus of an atom. | E. Protons            |
|  | F. Electrons          |
|  | G. Isotopes           |
|  | H. Plum pudding model |

<b>List A</b>	(i)	(ii)	(iii)	(iv)	(v)
<b>List B</b>					

3. (a) A bluish flame produced on the Bunsen burner is suitable for heating. Give two reasons.

(i) .....

(ii) .....

(b) Bunsen burner is able to produce two flames, one flame is formed when air hole is opened and the other flame is formed when air hole is closed. Give four differences of the flames formed when air hole is opened and air hole is closed.

Air hole opened	Air hole closed
(i)	
(ii)	

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(iii)	
(iv)	

- (c) In the case there is absence of Bunsen burner in the laboratory, we can use other heat source for heating substance. Identify any two sources of heat and their corresponding burning fuels.

Source of Heat	Burning fuel
(i)	
(ii)	

4. (a) State one use of each of the items (i)-(iv) in administering first aid to aviation.

Item	Use
(i)	
(ii)	
(iii)	
(iv)	

- (b) Draw and give one function of each of the following apparatus in the chemistry laboratory.

Name	Drawing	Function
Mortar and pestle		
Beehive stand		
Lie-big condenser		

5. (a) By giving one reason, explain the following facts.

- (i) Hydrogen gas used to fill weather balloons.

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 .....

- (ii) Oxygen gas can be used for welding activities although it does not burn.

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(iii) Water is the universal solvent.

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(iv) Most of the medicine (syrups) are written shake well before use.

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(v) Water is not advisable to extinguish the class E fire

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(b) Form two students were performing experiments A and B in experiment A they grinded pieces of chalk into powder while in experiment B they burnt paper into ashes. By giving five points differentiate between experiment A and B.

Experiment A	Experiment B
(i)	
(ii)	
(iii)	
(iv)	
(v)	

6. (a) Briefly explain five characteristics to be considered when looking for a good fuel.

- (i) .....
- (ii) .....
- (iii) .....
- (iv) .....
- (v) .....

(b) Explain five environment effects of using fire wood and charcoal in our society.

- (i) .....
- (ii) .....
- (iii) .....
- (iv) .....
- (v) .....

7. (a) Identify the methods which are used to separate the following mixture and for each give one reason why you use such methods

(i) Ethanol and water

Method .....

Reason .....

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(ii) Iodine and sand

Method .....

Reason .....

(b) Write down a chemical symbol of each of the following elements.

Element	Chemical symbol
(i) Sodium	
(ii) Mercury	
(iii) Iron	
(iv) Silver	
(v) Potassium	

(c) List down two significances of using chemical symbol.

(i) .....

(ii) .....

8. (a) Water is never lost but it is recycled in a global system by passing through different parts. What are the four parts that water passes through?

(i) .....

(ii) .....

(iii) .....

(iv) .....

(b) How can water be treated or purified at home. Give three points

(i) .....

(ii) .....

(iii) .....

(c) What are three economic uses of water?

(i) .....

(ii) .....

(iii) .....

9. (a) State three main ideas of the Dalton's atomic theory of matter.

(i) .....

(ii) .....

(iii) .....

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- (b) With an example for each, give two fields in which the scientific procedure is applied.
- (i) .....
- (ii) .....
- (c) Element T with atomic number 5 has isotopes A and B whose masses are 10.010 and 11.013 respectively. The proportion in nature of A is 20% and that of B is 80%. Calculate the relative atomic mass of T and write its electronic configuration of element T and give a name of element T.

**SECTION C (15 Marks)**

10. A gas Y is prepared in laboratory by decomposition of hydrogen peroxide and catalyst Q at once.
- (a) Give the name of
- (i) Gas Y .....
- (ii) Catalyst Q .....
- (b) Write a chemical formula for
- (i) Hydrogen peroxide .....
- (ii) Catalyst Q .....

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- (c) State three chemical properties of gas Y
- (i) .....
  - (ii) .....
  - (iii) .....
- (d) Draw a well labelled diagram for the preparation of gas Y

