



**THE PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT
ORGANIZATION OF HEADS OF NON-GOVERNMENT SECONDARY
SCHOOLS (OHNGSS).
FORM TWO MOCK EXAMINATION**

CODE 032

CHEMISTRY

TIME:2:30HOURS

JUNE 2022

INSTRUCTIONS

1. This paper consists of section A, B and C with nine printed pages.
2. Answer all questions in all section in the space provided.
3. All writings must be done in blue or black ink except for diagrams which must be in pencil.
4. Cellular phones and calculators are not allowed in the examination room.

QUESTION NUMBER	QUESTION CHOSEN: PUT A TICK (✓)	FOR EXAMINER'S USE ONLY	
		MARKS	EXAMINER'S SIGNATURE
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
TOTAL MARKS			

SECTION A (15Marks)**Answer all question from this section.**

1. For each of item (i) – (x) choose the most correct answer among the given alternatives and write its letter in the space provided.
- i. Which of the following statements is not true about water?
a) Water is used in industry as coolant
b) Water is used as a raw material to produce hydrogen
c) Water is used as solvent
d) Water is used as a raw material to produce carbon
- ii. Mr. Abeid boiled some tea, but didn't have a sieve; the alternative method he could use to separate the tea leaves from the liquid tea is
a) Evaporation (b) Fractional distillation
c) Decantation (d) Layer separation
- iii. The factors that affect the problem being investigated is referred as
a) Department factor (b) Variables
c) Independent factor (d) Conditions
- iv. A catalyst is the chemical substance which
a) Speeds up the chemical reaction
b) Changes the rates of the chemical reaction
c) Alters the rate of the chemical reaction but remain chemically unchanged at the end of reaction
d) Changes the rate of reaction and takes parts in reaction
- v. When compared to metals, non-metals are.....
a) Better conductors of heat and electricity
b) More brittle as solid (c) More ductile as solid
d) Better conductors of heat
- vi. Factors in an experiment that can be manipulated to get desired results are called
a) Controlled variables (b) Manipulated variables
c) Dependent variables (d) Independent variable
- vii. Which of the following is not a property of electrovalent bond?
a) They are often liquids or gases
b) They have high melting point
c) They are soluble in water
d) They consist of ions that are positive and negative
- viii. Two immiscible liquids are easily separated using
a) Condenser (b) Fractionating column
c) Fitter funnel (d) Separating funnel

- ix. The following are the uses of oxygen, except
- a) Breathing and respiration (b) Mining purification of metals
c) Manufacture of margarine (d) Welding
- x. Hydrogen reacts with chlorine to yield
- a) Hydrogen chlorate (b) Hydrogen chloride
c) Hydrogen chlorite (d) Hydrochloric acid

i	ii	iii	iv	V	Vi	vii	viii	ix	x

2. Match each item in **LIST A** with corresponding response in **LIST B** by writing its letter below the number of the corresponding item in the table provided.

LIST A	LIST B
i. Class C fire	A. Coating iron or steel with zinc
ii. Combustible	B. Fire resulting from fats and oils
iii. Nitrogen	C. Materials that produce heat on burning
iv. Class F fire	D. Reddish- brown coating on iron or steel
v. Rust	E. Used to refer components needed to start a fire
	F. Fire caused by flammable gas
	G. Gas with the highest percentage by volume of air
	H. Fire caused by electrical equipments
	I. Forms about 21% of air
	J. Burning materials are ordinary solid like papers

LIST A	i	ii	iii	iv	v
LIST B					

SECTION B (70marks)

Answer all questions from this section.

3. a). Elements U, V and W have atomic number 18, 17 and 19 respectively

i. Write the electronic configuration of each element

U.....

V.....

W.....

ii. Write nuclide notation of element W.

.....

b) Give four differences between luminous and non- luminous flame.

LUMINOUS FLAME	NON- LUMINOUS FLAME
i)	
ii)	
iii)	
iv)	
v)	

c).The non-luminous flame is used in different activities. Explain why this flame is preferred?

i.....

ii.....

.

4 a) what is the importance of the following items in the First Aid Kit?

i. Iodine tincture.

.....

.....

ii. Bandage.

.....

.....

iii. Petroleum jelly.

.....

.....

b). Give four laboratory apparatuses that are made of ceramic materials

i.

ii.

iii.

c). Outline three steps for administering First Aid to person having a minor bruise his/her leg

i.....

ii.....

iii.....

5 a) State what is observed when the following simple experiments are performed:

- i. A glowing splint is lowered into a jar full of oxygen gas

.....

- ii. A lighted splint is lowered into a jar of hydrogen gas.

.....

- iii. Iron reacts oxygen in the presence of moisture.

.....

- iv. When a mixture of sand and Ammonium chloride (NH_4Cl) is heated.

.....

.....

b) Explain three factors which affect the problem being investigate

- i.

- ii.

- iii.

c) Explain two areas where scientific procedure is applied.

- i.

- ii.

- iii.

6. a) Mr. Amani found the classroom starting to burn he tried to ask the source of such fire, the student told him that the fire was caused by an electrical fault.

- i. What would be the first procedure that Mr. Amani could do to stop fire?

.....

.....

- ii. State three (3) possible fire extinguishers that Mr. Amani could use to stop the fire

- a)

- b)

b) Why is the fire of flammable materials petrol cannot be stopped by using water?

.....

.....

c) State whether the following processes are chemical change or physical change.

- i. Rusting of iron.....
- ii. Rotting of teeth.....
- iii. Evaporation
- iv. Melting of ice.....

7 a). Differentiate the following terms as used in chemistry

- i. Water gas and producer gas.

.....
.....

- ii. Renewable source of energy and non-renewable sources of energy.

.....
.....

b) What are the factors you will consider in selecting a good fuel? (six points)

i.....

ii.....

iii.....

iv.....

v.....

8. a) There are two liquids in beakers A and B of which one is water and the other is any unknown liquid. How can we find out which one is water?

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.....
.....

b) Why it is important to treat and purify water? (Five points)

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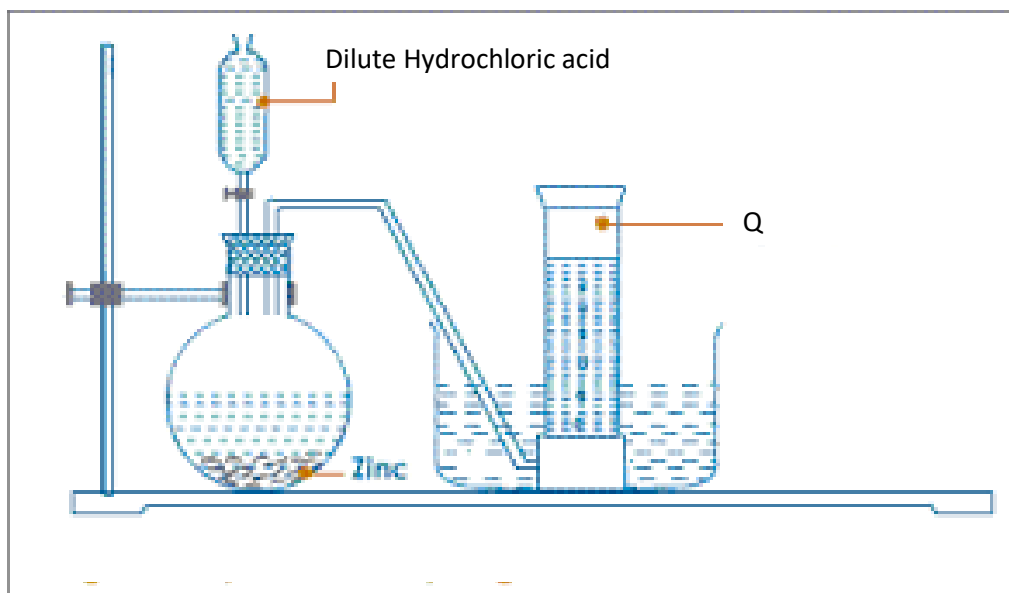
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c) What are the physical properties of water? (Three points).

- i.
- ii.
- iii.

9. The following figure shows a set-up used to prepare gas Q.



a) Identify gas Q.....

b) Identify other two chemical substances that could be used in the laboratory to prepare gas Q if zinc is not present.

- i.
- ii.

c) State two physical properties of gas Q.

- i.
- ii.

d) State two chemical properties of gas Q.

- i.
- ii.

d) Give reason why gas Q is used in the following

USES	REASON
i) Manufacture of ammonia	
ii) Filling weather balloons	
iii) Manufacture of margarine	
iv) Preparation of water gas	

SECTION C(15marks)

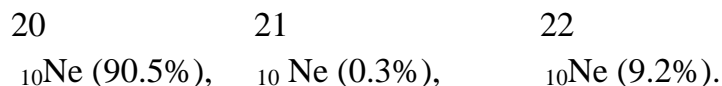
Answer the following questions provided

10 a). Study the following periodic table and then answer the questions that follow

1							
2	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18

- Write W in a space which could be occupied by a noble gas
- Write V in the space which the most active metal would occupy
- Write X in the space which the most active non-metal would occupy
- Write Z in the space which could be occupied by the most lightest element

b). Neon is an element that exist naturally as a mixture of three isotopes as follows,



From the information above calculate the relative atomic mass of neon

