

## CHEMISTRY FORM TWO NECTA 2004

Solutions from: [Maktaba by TETEA](https://maktaba.tetea.org)

By Yohana Lazaro

i	ii	iii	iv	v	vi	vii	viii	ix	x
A	C	A	B	A	D	A	B	D	B

2.

i	ii	iii	iv	v	vi	vii	viii	ix	x
J	H	K	C	M	L	A	G	E	D

3. (a)(i) Air is the mixture of gases in the atmosphere.

(ii) constituents of air

- oxygen
- carbon dioxide
- nitrogen
- water vapour

(b) Water is the compound because it is formed by chemical combination of hydrogen gas and oxygen gas.

(c)

solution	suspension
(i) completely mixed	-not mixed at all
(ii) difficult to separate	-easily separated

4 (a) Laboratory rules

- ☐ Don't enter in the laboratory without permission
- ☐ Don't run in the laboratory
- ☐ Do not eat anything in the laboratory
- ☐ Don't do any experiment without permission from the teacher

(b)-in agriculture

-in transportation

-in industries

(c)(i)it will change to red

(ii)it will catch fire then burn completely.

(iii)it will burn more than it was initially.

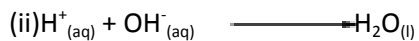
5. (a)Chemical equation is the mathematical representation of the chemical reaction.



6.(a)

- i. Copper (II) oxide
- ii. Calcium sulphate
- iii. Nitric acid
- iv. Zinc chloride

(b)(i)



(c)(i)Ag

(ii)Cu

(iii)Fe

(iv)Hg

7.(a)

(b)

P valency is  $3^+$

Period is 3

Group is III

Q valency is 1-

Period is 3

Group is VII

8. (a) Covalent bond is the bond that involves the sharing of electrons.

(b) Covalent and electrovalent compounds.

covalent	electrovalent
Electrons are shared	No electron sharing
Non metal reacts	Metal and non metal reacts

9.(a) Empirical formula is the chemical formula that express its composition by mass

(b)

-case 1. divide each element by its atomic mass,

C  $52.2/12 = 4.35$ , H  $13/2 = 6.5$ , O  $65.2/16 = 4.075$

-case 2. Divide each by the smallest value

C  $4.35/4.075 = 1$ , H  $6.5/4.075 = 2$ , O  $4.075/4.075 = 1$

(i) Empirical formula is  $\text{CH}_2\text{O}$

(ii) let that,

$$(\text{CH}_2\text{O})_x = 46$$

$$12x + 4x + 16x = 46, x = 1.4$$

Molecular formula is  $\text{CH}_2\text{O}$