

CHEMISTRY FORM THREE ENTRANCE ZANZIBAR 2016

Solutions from: [Maktaba by TETEA](#)

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

2

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

3

- i. Air, non uniform
- ii. 78%
- iii. Water, blue
- iv. Acidic, basic
- v. Neon

4 a)i. First aid is helping given to somebody who is sick or injured before sent him or her to hospital

ii. First aid kit is small which contain all necessary equipments for first aid.

- ✓ Pain killer
- ✓ Bandage
- ✓ Pairs of scissors
- ✓ Iodine tincture

b)i. Vomitting, suffocating, bleeding, choking, burning, fainting

ii. Fainting is the condition of a person to lose conscious due to lack of oxygen an the brain.

5. (a) Mass number is the sum of proton number and neutron number of the atom, *while* atomic number is the number of electrons in the atom.

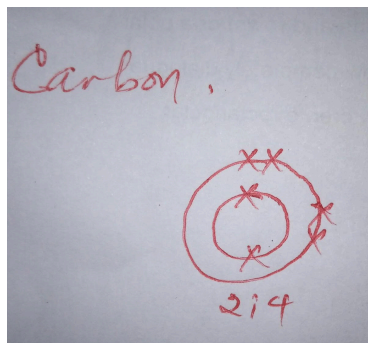
(b)

(I)6

(ii)6

(iii)6

(iv).



(v)Carbon

(vi) Non metal

6.a)(i) Compound is any substance which is formed when two or more elements combine together.

(ii)Mixture is the substance which is formed when substances are mixed at any ratio.

(iii)solute is the solid substance which can dissolve in liquid to form a solution

b)

- i. Sedimentation
- ii. Magnetic
- iii. Decantation
- iv. Vaporization

c)(i)water and kerosene

(ii)water and salt

(iii)iron fillings and table salt

7. (a)(i)A radical is the group of atoms which acts as the single element during reaction, e.g. NH_4^+

(ii)Oxidation number is the number of electrons the element can gain,lose or share during reaction

(b)

- i. OH^-
- ii. NO_3^-
- iii. SO_4^{2-}
- iv. CO_3^{2-}

(c)

element	radical			
	hydroxyl	nitrate	sulphate	carbonate
Sodium(Na)	Sodium hydroxide	Sodium nitrate	Sodium sulphate	Sodium carbonate
Calcium (Ca)	Calcium hydroxide	Calcium nitrate	calcium sulphate	Calcium carbonate

8.(a) i.Flame is burning of a substance which produce heat and light.

ii.heat is the form of energy which transfers from one point to another due to temperature difference between the points.

(c)i. Non luminous fiame

ii.Luminous flame

9 . (a)(i)filtration and sedimentation

(ii)Water treatment is the process of adding chemical materials in water in order to kill microorganisms in water that can cause diseases to human.

(iii)Boiling and filtration

(iv)UNIT 5

(v)Chlorine

(vi)Cl

10.(a)Energy is the capacity of doing work.

(b)Categories of fuels,

-Solid fuels

-liquid fuels

-gaseous fuels

(c)(i)Disadvantages of deforestation,

✓ Increases carbondioxide in the atmosphere

✓ It cause desertification

✓ Loss of biodiversity

ii)Alternative sources of fuel

✓ Natural gas

iii Preventive measures

- ☐ Use of alternative source of energy e.g solar energy and natural gas
- ☐ To encourage afforestation
- ☐ Avoid overgrazing

11.(a)i. isotope are the atoms of the same element having the same atomic number but difference mass number. E.g. $^{12}_6\text{C}$ and $^{13}_6\text{C}$

ii. $^{35}_{17}\text{Cl}$ and $^{36}_{17}\text{Cl}$

(b) Daltons assumptions

- ✓ Matter is made up of smallest indivisible particles called atom
- ✓ Atom cannot be created or destroyed
- ✓ Atoms of the same elements are identical and have the same mass
- ✓ Atoms of the difference element are not identical and have the difference mass

(c) properties of neutrons

- i. Has no charge
- ii. Found in the nucleus of the atom

d) From, $N = 2n^2$

- for $n = 2$, $N = 2(2)^2 = 8$

-for $n = 3$, $N = 2(3)^2 = 18$