

## CHEMISTRY FORM THREE ENTRANCE ZANZIBAR 2014

Solutions from: [Maktaba by TETEA](#)

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

xi	xii	xiii	xiv	xv
C	C	A	D	A

2.

i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii	xiv	xv
TRUE	TRUE	FALSE	TRUE	FALSE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE

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

4. (i)boiling

(ii)chlorination

(iii)filtration

5. (i)Fractional distillation

(ii)vaporization

(iii)sublimation

(iv)picking

6. (a)(i)Iron (II)chloride

(ii)copper (II) nitride

(b)(i) $\text{Fe}^{3+}$  and  $\text{Cl}^-$

(ii) $\text{Cu}^{2+}$  and  $\text{NO}_3^-$

7. (a) Class **C** is the class of fire containing Flammable gases, e.g natural gas.

(b)(i) natural gas (ii) propane

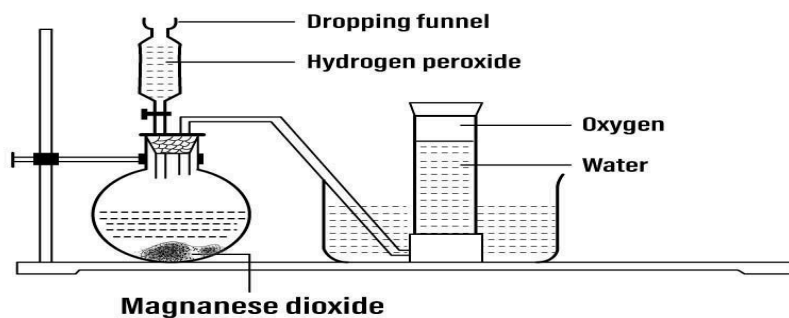
(c) Water cannot put off class C fire because gas is less dense than water, hence water will be going downward leaving gas above and hence continue to burn.

(d) Air is mixture because,-

-its constituents can be separated by physical means

-its constituents are mixed at varying ratio

8. (a) **Laboratory preparation of oxygen using hydrogen peroxide.**



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(b) Manganese (IV) has a function of speeding up the rate of chemical reaction.

9. (i) Covalent bond is the bond formed due to sharing of electrons

(iii) Covalent compounds do not conduct electricity because the shared electrons are not free to move, hence cannot transfer electric charges.

10.(a)

element	A	B	C	D
Atomic number	18	<b>11</b>	12	<b>17</b>
Number of protons	18	11	<b>12</b>	17
Number of neutrons	8	6	<b>12</b>	<b>8</b>
Mass number	26	17	24	35
Electronic configuration	2:8:8	2:8:1	2:8:2	2:8:7

(b)(i) B, C

(ii) A = 0 valency, D = -1

11. (a) Shock is the sudden loss of consciousness of a person

(b)(i) to cover the wound with clean cloth

(ii) giving a lot of fluids to recover the lost water during vomiting.

(iii) to make the tight clothes loose

(iv) take the person to hospital

12. (a)(i) Molecular formula is the formula which shows the actual number of each atom present in the molecule.

(ii) Empirical formula is the simplest formula which expresses its composition by mass.

(b) - let  $(SO)_x = 59.9$

$$32x + 16x = 59.9, x = 1.23$$

Empirical formula is SO

13. (a)

- i. A is alkaline metals
- ii. B is alkaline earth metal
- iii. C is transition metals
- iv. D is halogens
- v. E is noble gases

(b) hydrogen can be put in block A