CHEMISTRY FORM TWO NECTA 2018

Solutions from: Maktaba by TETEA

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1.

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

2. (a)

i	ii	iii	iv	v
D	E	F	G	H

(b)(i)combustion

(ii)rusting

(iii)fire triangle

(iv)burn

(v)saturated solution

3. (a)(i)catch fire easily

(ii)toxic substance

(iii)oxdizing agent

(iv)Irritant sustance.

(b)Importances of first aid

- ✔ Make short time to recover
- ✔ Reduce pains
- ✔ Brings hope to a victim
- ✔ Prevents infections

4. (a)(i)measuring cylinder used to measure volume of liquids

(ii)conical flask used to mix chemicals and keeping them

(b)(i)spirit lamp

(ii)gas stove

(iv)charcoal stove

(c)(it can produce laminous and non luminous flames

(ii)it produce largr heat

(iii)it is cheap and reliable

5. (a)(i)Brownian motion is the irregular wiggling motion of a particle caused by random bombardment of gas molecules against the particle.

(ii)Compound is the sustance formed when two or more elements combine together.

(b)(i)physical change

(ii)chemical change

(c)(i)using layer separation method.

(ii) by vaporization process

(iii)by fractional distillation

6. (a)(i)Zinc chloride solution

(ii)$ZnCl_2$

(b)by passing a glowing wood near the gas jar where pop-sound will occur.

(c)chemical properties of hydrogen gas.

-can reacts with radicals to form acids

-reacts with oxygen to form water

- it burn with pop-sound

-used in formation of hydrogen sulphide gas.

(d)Uses of hydrogen gas

-used as fuel in rockets

-used in welding to produce hotter flame

-used to ake margarines

7. (a)(i)

	oxygen	**aluminium**
electrons	8	13
protons	8	14

(b)(i)most reactive isCl

(ii)least electronegative is P

(iii)Cl

(c)(i)12

(ii)-period 3, group VI

8. (a)(i)firewood

(ii)natural gas

(iii)charcoal

(iv) electricity

(b)characteristics of good fuel

(i)affordable

(ii)easy to transport

(iii) don't produce much wastes

(iv)easy to store

(c)(i)in hospitals to identify disease

(ii)in industries

9. (a)(i)thistle funnel

(ii)trough

(iii)gas jar

(iv)beheeve

(v)flask

(b)uses of oxygen

- ✔ Used by divers
- ✔ Usedin respiration process
- ✔ Used to support combustion
- ✔ Used in seed germination

10. (a)(i)Valency is the combining power of an element.

(ii)oxidation state is the number of electrons the atom can gain,lose or share during reaction

(iii)Anion is the negative charged ion

(iv)cation is the positive charged ion

(b)(i) $N + (1 \times 4) = {}^{+}1$

$N = 3-$

(ii) $S + ({}^{-}2 \times 4) = -2$

$S = 6+$

(iii)$Cl + ({}^{-}2 \times 3) = -1$

$Cl = 5+$

(c) case1, divide each by its atomic mass,

Carbon 40/12 = 3.33, hydrogen 6.67/2 = 3.34, oxygen 53.33/16 = 3.33

Case 2, divide by smallest value

Carbon 3.33/3.33 = 1, hydrogen 3.34/3.33 = 1, oxygen 3.33/3.33 = 1

(i)Empirical formula is CHO

(ii) for molecular formula

Let $(CHO)_x = 60$

$12x + x + 16x = 60$

$X= 2$

Molecular formula is $C_4H_4O_4$