CHEMISTRY FORM TWO NECTA 2017

Solutions from: Maktaba by TETEA

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

2. (a)

i	ii	iii	iv	v
H	F	D	A	E

 (b)(i)heat, light

   (ii)electronic configuration

  (iii)biogas

  (iv)oxygen

  (v)catalyst

3. (a)(i)Burette is used to measure specific volume.

     (ii)Filter funnel is used to direct the liquid into container without puored down

    (iii)Beaker is used to keep solutions temporarly during experiment

  (b)(i)First aid is an immediately help given to a victim before taken to hospital.

     (ii)Laboratory is the special room where scientific experiments are conducted.

   (c)(i)cotton wool

    (ii)plaster

   (iii)iodine tincture

4. (a)Matter is anything that has got mass and occupy space.

   (b)(i)chemical change

    (ii)physical change

(iii)chemical change

(c)

Chemical change	Physical change
(i)usually irreversible	-reversible change
(ii)changes involve absorption or release of energy	-no release or absorption of energy
(iii)new products are formed	-no new products formed
(iv)changes chemical composition of matter	-does not change the chemical composition

5. (a)(i)hydrogen peroxide, H_2O_2

   (ii) manganese (IV) oxide, Mn_2O_4

  (b)(i)Downward displacement of water

   (ii) it re-light a glowing wood

  (c)Uses of oxygen

    -used in hospitals

    -used for respiration

    -used for seed germination

    -used to support combustion

6. (a)(i)sulphide ion

   (ii)chlorite ion

   (iii)phosphide ion

  (b)(i) $^+1 + (4 \times {}^+1) + Cl = 0$

     $Cl = 5-$

   (ii)Al_2O_3

     $(^+3 \times 2) + 3O = 0$

    $O = 2-$

   (iii)Na_2SO_4

    $(^+1 \times 2) + S + (4 \times {}^-2) = 0$

      $S = 6 +$

(iv)H_2O_2

  $(2 \times {}^+1) + 2O = 0$

  $O = 1-$

(c)(i)total mass = $(1 \times 2) + (32) + (16 \times 4) = 98$

  Mass of S = 32

  Percentage co.p = 32/98 x 100%

  = 32.65 %

(ii)total mass = $40 + 2(14) + 2(3 \times 16) = 164$

  Mass of Ca = 40

Percentage compos. = 40/164 x 100%

  = 24.39 %

7. (a)(i)-it produce sooty

  -it has less heat

  (ii)luminous flame.

 (b)(i)sand

  (ii)water

©(i)by applying lubricants like grease

  (ii)covering with paints

8. (a)(i)A – hydrogen

  B –helium

  C- lithium

  D – neon

  E – sodium

  F = sulphur

  G – chlorine

H – calcium

(b)(i)D, (ii)G, (iii)H

9. (a)Dilute sulphuric acid

(b)

Physical properties	Chemical properties
-it is less dense than air	-reacts with oxygen to form water
-it is colourless,tasteless and ordourless	-it forms acids

(c)The pop-sound will be heard

(d)(i)used as fuel in rocket

(ii)used in production of margarines

10. (a)(i)layer separation funnel

(ii)-liquid A is kerosene as has smallest density of the others

-liquid C is water because it has high density than the others

(b)

ions		name	formula
Ca^{2+}	Cl^-	Calcium chloride	$CaCl_2$
Al^{3+}	SO_4^{-2}	*Aluminium sulphate*	$Al_2(SO_4)_3$
H^+	SO_4^{2-}	Hydrogen sulphate	H_2SO_4