

# CHEMISTRY MARKING SCHEME

1 @ 1 mark

i	ii	l ii	iv	V	vi	vii	viii	ix	X
D	D	A	C	D	A	C	B	A	B

2. @ 1 mark

LIST A	A	B	C	D	E
LIST B	I	II	III	IV	V

3. (a) Air is a mixture of gases and not a compound because

- i) Have specific chemical formula
- ii) The composition of air differs at different condition and place
- iii) The gases in air can be separated by physical means
- iv) Each ingredient in air retains its properties

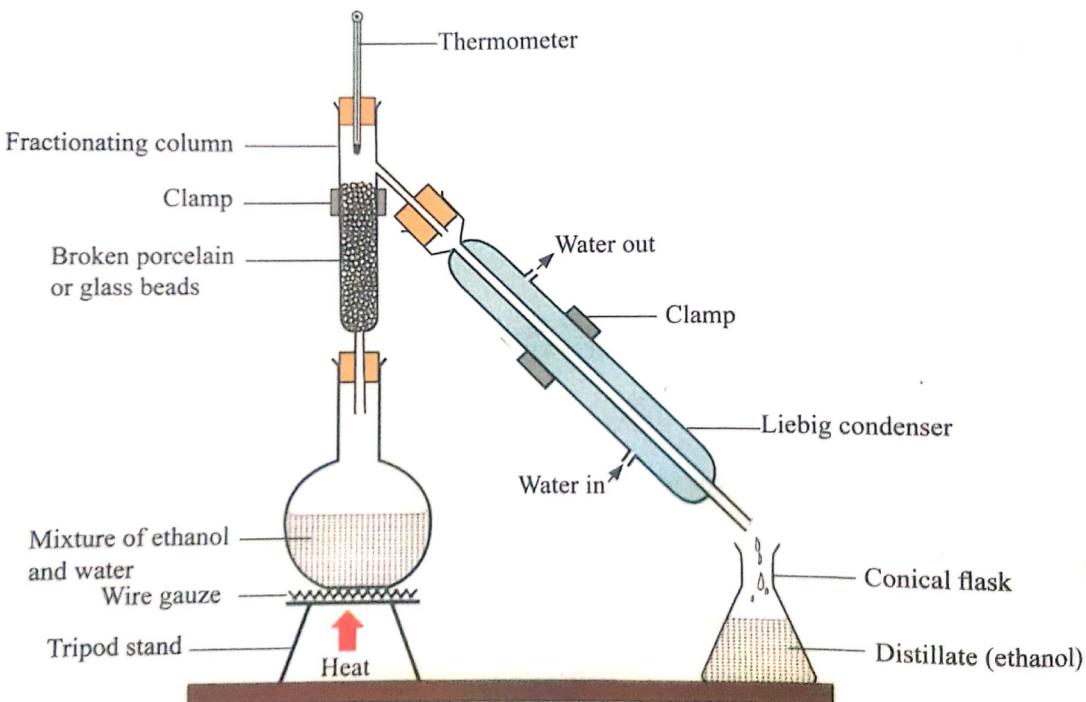
@ 1 mark

(b)

- i) It must dissolve substance
- ii) It must be easy removable after extraction
- iii) It must be easily available and cheap
- iv) It must not be toxic or corrosive

@ 1.5 mark

4. (a)



(b) In order to show the temperature of the vapour of the vapour of liquid with the lower boiling point **@ 2 mark**

5 (a) (i) Mercury

Latin name = Hydrogen

Wolfram

Symbol = Hg

W

(ii) Tin

Latin name = Stannum

(iii) Tungsten

Latin name =

Symbol = Sn

Symbol =

**@ 1 marks**

(b)

i. Carbon (C)

ii. Calcium (Ca)

iii. Chlorine (Cl)

iv. Cobalt (Co)

v. Copper (Cu)

6 (a) i) It helps to distinguish one element from the other.

ii) It helps to know the name of elements. Example 'Na' represents

iii) It helps to write chemical equations in abbreviated form

iv) It helps to study chemistry easily

**(@ 1mark)**

(b) **(@1.5 marks)**

TERM	MEANING
i. Ductile	They can be drawn into thin wires
ii. Sonorous	They produce a typical metallic sound when hit with something
iii. Malleable	They can be hammered into thin sheets
iv. Lustrous	They produce shining surface when cut

7 (a) Examples **(@ 2marks)**

i. Spread of the smell of the food being cooked from the kitchen to a considerable distance

ii. Diffusion of Potassium permanganate particles in water

iii. Spread of perfumes due to diffusion of the perfume vapours into the air

(b) **(@ 1.5 marks)**

i. Metallurgy involves extraction and purification of metals from their ores and the manufacture of alloys. The changes of states from solid to liquid and back to solid make metallurgy possible.

ii. Steam engines uses steam as working liquid to perform work. Steams engines were used in the early trains and ship. The change of state from liquid water to steam makes steam engines operates.

8 (a) Due to the presence of moisture or water in coastal regions such as Tanga, Dar-es-salaam or Zanzibar that's why rust is easily occurred in cars and corrugated iron sheet compared to Mwanza, Arusha or Songea. **(5 mark)**

(b) Applications of Saturation **(@ 2.5 marks)**

i. Separating a certain mixture in laboratories

ii. Extracting some minerals; such as extracting common salt from sea water

9 . Methods of separating substances **( @1mark)**

- |                            |                              |
|----------------------------|------------------------------|
| i. Crystallization         | vi. Separating funnel method |
| ii. Picking method         | vii. Distillation            |
| iii. Filtration method     | viii. Sublimation            |
| iv. Chromatography         | ix. Filtration               |
| v. Fractional distillation | x. Sublimation               |

10 (a) – How to use fire extinguisher **(@ 1mark)**

i. Remove the safety pin

ii. Hold the discharge hose and focus at the base of the fire

iii. Squeeze the top lever to release the extinguishing agent

iv. Sweep from side to side until the fire is extinguished

- Precautions should be taken to when using fire extinguisher **(@ 1mark)**

i. Keep a reasonable distance from fire as it may suddenly change direction

ii. For a person on fire, use a fire blanket instead of portable fire extinguisher

iii. Do not test a portable fire extinguisher at your school without permission

iv. Do not return a used portable fire extinguisher to the wall

(b) Because it spread flames **(2 marks)**