HOME PACKAGE
FOR ORDINARY LEVEL CHEMISTRY
FORM ONE CHEMISTRY
SET No. 01

SECTION A (15 MARKS)

1. For each of the items (i) – (x) choose the correct answer from among given alternatives and write it on the space provided

   i. Identify the skill not acquired during chemistry study……
   - A. Careful and thorough observations
   - B. Accurate recording of what has been observed
   - C. Drawing conclusions from observations
   - D. Thorough observations and map reading skill

   ii. Access to safety equipment should never be blocked by any object because _____
   - A. It's a just simple law
   - B. There must be spaces for people to move around in the laboratory
   - C. The equipment is used in every day
   - D. Its important to reach safety equipment quickly in case of an accident

   iii. The following apparatus is used to keep test tubes in the laboratory
   - A. Test tube rack
   - B. Beaker
   - C. Tongs
   - D. Test tube holder

   iv. Factors in an experiment that can be manipulated to get desired results are called
   - A. Controlled variables
   - B. Manipulated variables
   - C. Dependent variables
   - D. Independent variables

   v. Which of the following is an example of a chemical change
   - A. Melting butter
   - B. Breaking glass
   - C. Mixing milk and water
   - D. Burning leaves

   vi. When a small amount of common salt is dissolved in water, the mixture so formed is
   - A. Homogeneous
   - B. Immiscible
   - C. Heterogenous
   - D. Suspension

   vii. Which term describes a rapid chemical reaction that releases energy in form of light and heat?
   - A. Ignition
   - B. Reactivity
   - C. Combustion
   - D. Heating

   viii. Are those people who study chemistry practically in the pastare called _____

A. Chemists
B. Alchemist D.Scientist
C. Al-chemistry

ix. Is the systematic study of nature:-
A. Science
B. Technology
C. Chemistry
D. Contamination

x. Syrups are examples of
A. Solution
B. Suspensions
C. Homogeneous mixtures
D. Filtrate

i.	ii.	iii.	iv.	v.	vi.	vii.	viii.	ix.	x.

2. Match the item in **list A** with the corresponding responses in **list B** by writing the letter of the correct response besides the item number

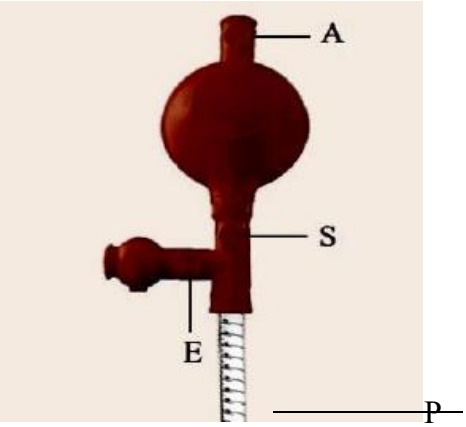
LIST A	**LIST B**
i. Agriculture ii. Textile industries iii. Transport iv. Medicine and pharmacy v. Construction materials industries	A. Laboratory chemicals B. Fuels, coolants and tyres C. Clothes, dyes and packaging materials D. Paints cement, plastics and iron sheets E. Soft drinks F. Perfumes, detergents, shampoos G. Drugs, vaccines and food supplements H. Fertilizers and pesticides

LIST A	i.	ii.	iii.	iv.	v.
LIST B					

SECTION B (70 MARKS)

Answer ALL questions in this section

3. Study the diagram given below then answer the questions that follows;-



a) What is the name of the apparatus above?_____

b) What is the function of the apparatus?_____

_____

c) What are the functions of the labeled parts;-

P_____

E_____

S_____

A_____

d) What will you do if the above mentioned apparatus is not in the laboratory to save the same function?_____

_____

4. (a) Your teacher may advice you on things you should never do in the laboratory. For each of the rules below, write what might happen if you never followed the instructions?

i. Never enter in the laboratory without permission

_____

_____

ii. Never quarrel or fight in the laboratory

_____

_____

iii. Never throw any solid into the sink or waterways

_____

_____

iv. Replace the cover after using the chemicals

_____

_____

v. Never use laboratory apparatus for drinking or storing food

_____

_____

_____

(b) Draw the warning symbol you would expect to see on

i. A can of petrol

ii. A bottle of concentrated sulphuric acid

5. a) Mkwawi a form one student at Lake Tanganyika secondary school accidentally mixed sulphur and iron fillings

(i) Suggest an appropriate method of separation you would advise him to use to separate the mixture

_____

__

(ii) Give a reason for the choice of your answer

_____

___

(iii) Describe how he would use the method named above to separate the sulphur and iron fillings

_____

_____

(b)(i)Name two substances that sublime when heated

_____

(ii) Why water is not a suitable solvent in paper chromatography?

_____

_____

c) Bleeding is the lost of blood and other fluids from the body when the skin breaks. As a student identify procedures when dealing with the a victim of a small cut or wound.

i)

_____

ii)

_____

iii)

_____

iv)

_____

v)

_____

vi)

_____

6. (a) Effective use of four senses of observation is important before a chemist can make conclusion. With four (4) points, show how the senses are used as tools of observation during experimentation by giving one example for each.

_____

_____

_____

_____

_____

_____

_____

_____

b) Is chemistry related to your environment? Explain.

_____

_____

_____

_____

_____

_____

_____

7. a) Why a flame produced by a candle **is not** suitable for a cooking? Give two reasons

i) _____

ii)

_____

b) Give four differences between a flame produced when the air holes of a Bunsen burner are open and the one produced when the air holes are closed

Flame produced when air holes are open	**Flame produced when air holes are closed**
i)	
ii)	
iii)	
iv)	

8. a) Identify each of the following statements as an observation or a hypothesis

i) A silver tray turns a dull gray color when left uncovered

_____

ii) North of the equator, it is warmer in summer than in winter

_____

iii) Ice cubes float in water because they are less dense

_____

b) Outline four significance of scientific producers in daily life

i)

_____

ii)

_____

iii)

_____

iv) _____

_____

v) _____

_____

9. Robert Msaki placed a large crystal of Potassium permanganate (VII) in the bottom of a beaker of cold water and left it for several hours

(i) Explain what she must have observed after five minutes. Explain

_____
_____
_____
_____

(ii) Describe what she likely observed after several hours. Explain

_____
_____
_____
_____

(iii) Name the two processes which have taken place.

_____

(iv) From that experiment give two conclusions about matter

_____
_____
_____
_____

SECTION C (15 Marks)
Answer question number ten (10)

10. (a) Draw a well labeled diagram of a small laboratory heat source consisting of s vertical metal tube connected to a gas source

(b) Describe how you will light a device drawn above

i)_____
ii)_____
iii)_____
iv)_____

(c) Burning back of the device drawn above is corrected as follows

i)_____
ii)_____
iii)_____

SET No. 02

SECTION A (15 MARKS)

9. For each of the items (i) – (x) choose the correct answer from among given alternatives and write it on the space provided

xi. Identify the skill not acquired during chemistry study……

E. Careful and thorough observations
F. Accurate recording of what has been observed
G. Drawing conclusions from observations
H. Thorough observations and map reading skill

xii. Access to safety equipment should never be blocked by any object because _____

E. It's a just simple law
F. There must be spaces for people to move around in the laboratory
G. The equipment is used in every day
H. Its important to reach safety equipment quickly in case of an accident

xiii. The following apparatus is used to keep test tubes in the laboratory

E. Test tube rack
F. Beaker
G. Tongs
H. Test tube holder

xiv. Factors in an experiment that can be manipulated to get desired results are called

E. Controlled variables
F. Manipulated variables
G. Dependent variables
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xv. Which of the following is an example of a chemical change

E. Melting butter
F. Breaking glass
G. Mixing milk and water
H. Burning leaves

xvi. When a small amount of common salt is dissolved in water, the mixture so formed is

E. Homogeneous
F. Immiscible
G. Heterogenous
H. Suspension

xvii. Which term describes a rapid chemical reaction that releases energy in form of light and heat?

E. Ignition
F. Reactivity
G. Combustion
H. Heating

xviii. Are those people who study chemistry practically in the pastare called _____

D. Chemists
E. Alchemist D.Scientist
F. Al-chemistry

xix. Is the systematic study of nature:-

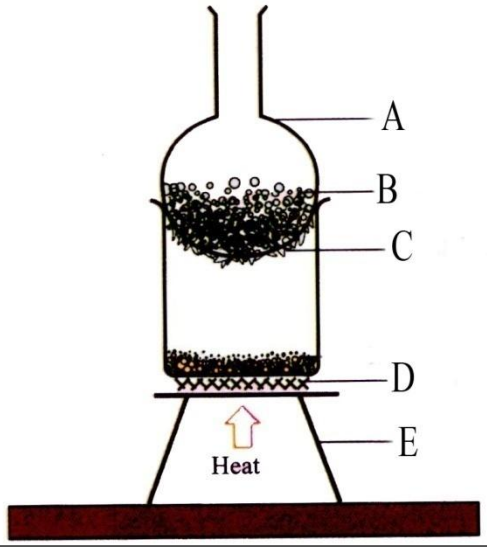
E. Science
F. Technology
G. Chemistry
H. Contamination

xx. Syrups are examples of

E. Solution
F. Suspensions
G. Homogeneous mixtures
H. Filtrate

xi.	xii.	xiii.	xiv.	xv.	xvi.	xvii.	xviii.	xix.	xx.

10. Match the item in **list A** with the corresponding responses in **list B** by writing the letter of the correct response besides the item number

LIST A	**LIST B**
	I. Round bottomed flask J. Ice cubes K. Crystals of iodine L. Wire gauze M. Tripod stand N. Mixture of sand and iodine O. Heat P. Sublimation

LIST A	A	B	C	D	E
LIST B					

SECTION B (70 MARKS)

11. (a) Is air a mixture or a compound? Argue this statement by using four points,
(b) Solvent extraction is the method of separating one substance from one more substance by using a solvent, but the solvent must fulfill four conditions. What are they?

i. _____
ii. _____
iii. _____
iv. _____

12. (a) Draw a well labeled diagram to show a method responsible for separation a mixture of ethanol and water.

(b) Briefly explain why in the method above the thermometer is fitted at the top of fractionating column?

_____
_____
_____

5. a) What is your answer when someone ask you to write the Latin name and symbol of Mercury, Tin and Tungsten

_____
_____
_____

(b) List down five elements with their corresponding chemical symbols which starts with letter C

i). _____
ii). _____
iii) _____
iv) _____

6. a) On your way back to home, you hear two students arguing that chemical symbols has no importance because it confuse scientists. How will you correct their argument by using four points?

i. _____-_____
ii. _____
iii. _____
iv. _____

b) Compete the given table below

TERM	MEANING
i) Ductile	
ii) Sonorous	
iii) Malleable	
iv) Lustrous	

7. (a) Describe three examples which shows that matter is made up of particles that are in constant motion

i. _____
ii. _____
iii. _____

(b) Describe how the importance of matter changing from one state to another can be explained in terms like metallurgy and steam engines

_____
_____
_____
_____

_____

_____

8. (a) Cars and corrugated iron sheet in coastal towns like Dar- es- salaam, Tanga and Zanzibar are found to rust more quickly than in other cities in Tanzania like Songea, Mwanza or Arusha. Why is this?

_____

_____

_____

_____

_____

(b) A saturated solution is the one in which the solvent can dissolve no more solute at a given temperature and pressure also the concept of saturation can be applied when

i)_____

ii)_____

9. How can the following mixture be separated

(i) Sugar solution

(ii Mixture of rice and sand

(iii) Mud from muddy water

(iv) Chlorophyll from green leaves

(v) Water from mixture of water and alcohol

(vi) Water from mixture of water and paraffin

(vii) Pure water from impure water

(viii) Iodine from mixture of iodine and sodium chloride salt

(ix) Water and salt

(x) Ammonium chloride and sodium chloride salt

SECTION C (15 Marks)

Answer question **number 10** in this section

10. (a) At your home the fire break out suddenly and you are chosen to put part of that fire by using fire extinguisher. Explain, how can you use a fire extinguisher and what precautions can you take so as to avoid occurrence of other accident.

(b) Why is not advised to use water for extinguish class B and C fires?

SET No. 03

SECTION A (15 MARKS)

Answer ALL questions

1. Write down the letter of the most correct Reponses for each of the following questions.

i) If a Bunsen flame produces most soot which is the correct conclusion.
   a) The air hole is closed
   b) The burner gas jet is big ( )
   c) The air hole fully opened
   d) The gas supply is poor

ii) The state of matter are:-
   a) Element ,Gas, and Mixture
   b) Liquid, Moisture and Element ( )
   c) Water ,moisture and solid
   d) Gas, liquid and solid

iii) Juma applied the knowledge of scientific procedures in solving his daily problems. One of the stages of scientific procedure is experimentation. In scientific procedures experiments used to test which from the choices given?
   a) Data
   b) Problems( )
   c) Hypothesis
   d) Observation

iv) The substance that can burn your skin is best described as
   a) Flammable
   b) Corrosive ( )
   c) Explosive
   d) Toxic

v) Which of the following sets of apparatus suitable for measuring volume of solution s
   a) Burette, pipette, and beaker
   b) Burette , pipette, and conical flask
   c) Measuring cylinder, burette and pipette ( )
   d) Burette, flat bottomed flask and pipette

vi) Flammable chemicals are the ones which can
   a) Catch fire easily
   b) Explode easily
   c) Poison you ( )
   d) Burn skin

vii) _____ are conditions or factors that can change in an experiment
   a) Hypothesis
   b) Variables ( )
   c) Problems
   d) Conclusion

viii) A branch of chemistry which deals with studies and uses of instruments and methods which used to separate, identify, and quantify, chemical species in matter?
   a) Inorganic chemistry
   b) Analytical chemistry ( )
   c) Instrumental chemistry

d) Biochemistry

ix) Which branch of chemistry deals with the studies of carbon and its compound?
a) In organic chemistry
b) Organic chemistry ( )
c) Biochemistry
d) Analytical chemistry
e)

x) Why is loose or floppy clothing not clawed in the laboratory?
a) It will help move fast
b) It well get wet when water splashes
c) It may catch fire or cause one to fall ( )
d) It cause poor ventilation in the body

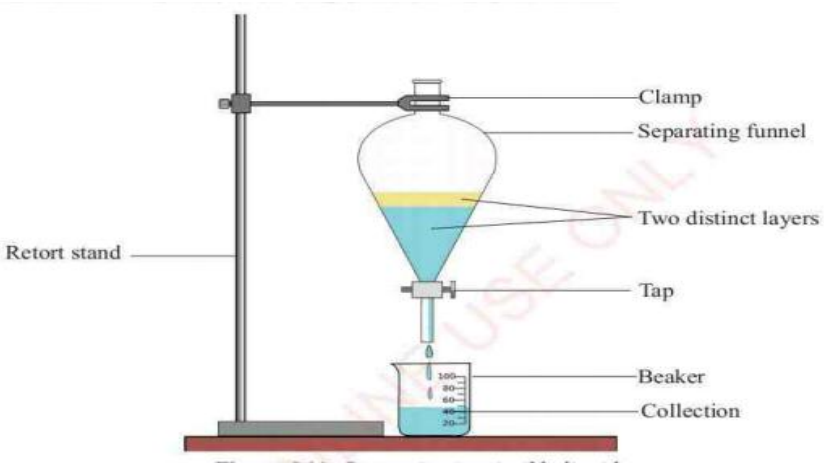
2.

LIST A	LIST B
i) A process of a separating mixture of sodium chloride and ammonium chloride. ii) A method used to separate kerosene and water iii) A method by which salt and water can be separated iv) A method used to get solvent from solution mixture v) A method by which coloured substance are separated and identified	A. sublimation B. Boiling C. Chromatography D. Distillation E. Evaporation F. Filtration G. Layer separation H. Decantation

SECTION B (70 Marks)
Answer ALL questions

3) What are considered to be the main distinctions between a chemical compound and a mixture? (**5points**) Explain why the liquid obtained by mixing sodium chloride with water is not regarded as a chemical compound.

4) A form one student from UBN secondary school prepares experimental set up **A** as follow. Then they pour water into a beaker followed by addition of kerosene to obtain a mixture **X**. Then they pour the mixture **X** in a experimental set **A.** Apply the knowledge you obtain from chemistry lessons answer the questions that follow



(a) Identify the experimental set up **A**

(b) Identify the mixture **X**

(c) What is a aim of the demonstrated Experiment

(d) Which liquid you drain first? Give reason

5) (a) Explain why there is an increase in weight when iron get rust.

(b) Mention ways in which the burning in air of magnesium and rusting of iron differ **(4points)**

6) (a) A form one student from UBN SECONDARY reads a statement from a certain book that, ‘‘if the clothes worn by your friend catch fire, cover them with a fire blanket’’ Why a fire Blanket is to be used in that case?

(b) Explain the Effect of rust in your environment.

(c) You are given the components of air in the table bellow. Answer the question below follo.

GAS	**APPROXIMETE PERCENTAGE(%)**
Nitrogen	78
Oxygen	21
Noble gas	0.94
Carbon dioxide	0.03
Water vapour	0.4

What does percentage indicate?

7) With the aid of well labelled diagram explain how Bunsen burner work

8) (a) Once Mr Msaki open a container which contain hot soup in the room, people in different parts of the room notice the smell of the soup. You as a form one student explain by using kinetic theory of matter how this happens.

(b) Water vapour is a matter? Explain your answer

(c) Why does the wax of the candle melt after few seconds when the candle is ignited? Explain

9) There are various types of solutions. The solute and solvent can be in any state of Matter. The table bellow show mixture of different solutes and solvents in different state to form solutions. Fill the table by giving common examples

solute	**solvent**	**Examples**
solid	gas	
solid	liquid	
solid	solid	
liquid	Gas	
liquid	liquid	
liquid	solid	
gas	gas	
gas	liquid	
gas	solid	

SECTION C (15 Marks)
Answer **question number 10** in this section

10) use tick and cross to fill the table