PRESIDENT'S OFFICE

REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT

FORM ONE MIDTERM EXAMINATION AUGUST 2023 CHEMISTRY

CODE: 032 Time: 2:30 Hours

INSTRUCTIONS:

- 1. This paper consists of sections A and B with a total of ten (10) questions.
- 2. Answer all question in the space provided.
- 3. Writing must be in black or blue ink **except** diagram which must be in pencil.

SECTION A (20 MARKS)

- 1. For each of the items (I X) choose the correct answer from among the given alternatives and write its letter beside the item number.
 - i. Which of the following is not a man-made product of applying chemistry?
 - A. Fertilizer

C. Sugar

B. Milky

- D. Vaccines
- ii. How is the amount of entering in the Bunsen burner controlled?
 - A. By adjusting the opening of the barrel
 - B. By adjusting the openings of the colar
 - C. By adjusting the opening of the jet
 - D. By adjusting the opening of the base
- iii. How do the chemists refer to a mixture of a milk and water?
 - A. Emulsion

C. Miscible solution

B. Suspension

- D. Immiscible solution
- iv. How can one prevent rusting in fragile instrument like cameras?
 - A. By using silica gel
 - B. By using ethanol
 - C. By using galvanization
 - D. By using oil
- v. What is the best way of keeping a clean test tube after use?
 - A. Keep it in water
 - B. Keeping it on test tube order
 - C. Keeping it in basin for test tube
 - D. Keeping it on test tube rack
- vi. Which is the suitable alternative heat source to be used in absence of Bunsen burner?

- A. Torch and spirit burner
- B. Torch and kerosene stove
- C. Kerosene stove and sprit burner
- D. Fire wood and torch
- vii. What happens when substance A react with substance B to form a new substance C?
 - A. Substance A and B said to have formed a solution
 - B. Substance A and B are said to have undergone a physical change
 - C. Substance A and B are said to have undergone a chemical change
 - D. Substance A and B are said to have undergone a dissolution
- viii. Which components make the fire triangle?
 - A. Oxygen, fuel and heat
 - B. Oxygen, nitrogen and heat
 - C. Oxygen, fuel and carbon dioxide
 - D. Oxygen, heat and hydrogen
- ix. When a small amount of sugar is dissolved in a glass of water the mixture formed is;

A. Heterogeneous

B. Immiscible

C. SuspensionD. homogenous

Fainting is a sudden loss of

A. Confidence

X.

C. Water in the body

B. Weight of the body

D. Consciousness

ITEM	I	II	III	IV	٧	VI	VII	VIII	IX	Χ
ANSWER										

2. Match the mixtures in list A with the methods of separation in list B by writing the letter of the correct response below.

LIST	A	LIST B	
i.	Ammonium chloride crystals in	A.	Decantation
	sand	B.	Chromatography
ii.	Muddy water	C.	Evaporation
iii.	Oil in sunflower	D.	Fractional distillation
iv.	Sodium chloride in water	E.	Layer separation
V.	Spirit in water	F.	Sublimation
		G.	Solvent extraction

LIST A	I	II	III	IV	V
LIST B					

ve one function for each of Spatula ———————————————————————————————————	the following apparatuse	s in the chemistry laborate
Gas jar		
Libe-big condenser		
Mortar and pestle		
Wire gauze		
Assign each of a proporty	SECTION B (80 MARI	_
Assign each of a property tick on the respective colu		
PROPERT OF FLAME	LUMINOUS FLAME	NON-LUMINOUS FLAN
i. Gives plenty of smoke and soot		
ii. Blue in color and	<u> </u>	
iii. almost invisible iv. Yellow zone is		
v. bigger than blue zone		
vi. Formed when the		

	VII.	air holes are completely closed		
	viii.	Blue zone is large than yellow zone		
	ix.	Produces the hottest flame.		
	sudde consid	nly the light go off. Gi ler luminous flame rat hting	ing an experiment in the lat ve two reasons to justify th her than non-luminous flam	e fact that you would ne as an alternative source
noles f	` '	, , ,	es of the flame produced by ound in the flame produced	•
i.	uii ope	,	ound in the hame produced	
ii.				
4.	Disting i.	guish the following sul Saturated from unsat		
	ii.	Miscible from immisci	ble liquids	
	iii.	Homogenous from he	eterogeneous mixture	

- (b) How can you separate each of the following mixture?
- i. Kerosene and water

	ii.	Pure water and muddy water
	iii.	Ethanol and water
	iv.	Iodine and sand
	V.	A mixture of sulphur and iron fillings
_	Elo:	
ο.	i.	n the role of chemistry in the following fields; Agriculture
	ii.	Human health
	iii.	Industry
	iv.	Transport and communication

plication of chemistry in eac FIELD a) Medicine	Tr or the	PRODUCTS	
b) Transport			
c) Manufacturing indus	stry		
(d) Food and beverage			
Draw and give one function	of the	following appara	tus;
Draw and give one function APPARATUS	of the		tus;
_			
APPARATUS			

the

	II) Bruises
	III) Fainting
7.	(a) Suppose water in the pond in your area is contaminated and has caused people to get sick. How would you solve this problem using the scientific procedures?
	(b) What are the advantages of using the scientific procedures in doing science experiments?
8.	(a) Briefly explain the kinetic nature of matter (with the aid of diagram)
	(b) Differentiate metals from non-metals.
9.	Briefly explain the five classes of fires based on the nature of the burning materials and the extinguisher required. Give one example for each class.

- 10. Aska conducted an experiment to demonstrate condition necessary for rusting, the results observed after two days.
 - Test tube A = He put two clean nails, cotton wool and 5cm³ of tap water

- Test tube B= He put two clean nails 10cm³ of boiled water followed by 3cm³ of oil.
- Test tube C= He put two clean nails, cotton wool and placed some lumps of anhydrous calcium chloride.
- Test tube D = He put only two nails.

_	What is observed in each test tube at the end of the two days?						
b)	Why is the water in test tube B boiled then covered with oil?						
c)	What is the function of anhydrous calcium chloride in test tube C?						
d)	From the result of the experiment, state the condition necessary for rusting to occur?						