END OF TERM 1 EXAMINATIONS 2024 SENIOR S4 Set II

CHEMISTRY PAPER 1

TIME 1 ½ hours

Name stream
 Instructions to learners ➤ This examination paper consists of four test items. ➤ Attempt all of them and write your responses in the spaces provided. ➤ Neat and handwriting and meticulous usage of the calculate will maximize your scores.
Item 1 Mr. Sam Kirimuttu landed on the information below in a newspaper; "Atomic numbers of atoms of elements R, X, Y, and Z are 8, 11, 13 and 17 respectively" Sam continued searching for the electronic configuration of each of these elements. He also wanted to know the formulae of different compounds formed when these elements combine. This challenged him so much because the required information was lacking in the newspaper.
Task; As a learner of chemistry, prepare a written message to Sam.



Item 2

Fossil fuels such as crude oil and natural gas are found in Uganda and are a very important source of energy to run industries. Due to the discovery of crude oil in same parts of Hoima, many residents are unhappy because they are being forcefully relocated so as to pave way for construction of the pipe line to Tanzania where the crude oil is to be fractionally distilled. This has made these residents to start asking around if there are any other uses of these fossils fuels such that they can willingly leave the area for the development and if not they are not willing to leave as they claim that only one use of something cannot make them be relocated.

The district local council five chairman is looking for an expert to sensitize these residents so as to embrace the new development.

to embrace the new development.
Task As a learner of chemistry, prepare a written massage that will be delivered to these locals upobeing invited to sensitize them.

Item 3

Alcohols are organic compounds containing a hydroxyl group as their functional group. They have a general formula of $C_nH_{2n+1}OH$, where n is the number of carbon atoms. Akim is a young scientist who is interested in getting some information on alcohols; he wants to know the molecular and structural formulae and names of at least five alcohols. he is also interested in knowing at least five uses of the commonest alcohol. Task As a learner of chemistry, prepare a presentation that will be delivered to Akim.								

Item 4

Sodium hydrogen carbonate or sodium bicarbonate is one of the substances which is used in making pan cakes. This is used because it softens the cakes and also produces carbon dioxide that increases the size of the cake. The carbon dioxide is produced according to the following equation.

$$2NaHCO_3(s) \rightarrow Na_2CO_3(aq) + H_2O(l) + CO_2(g)$$

Abbey, the pan cakes maker wants to make pan cakes that require 5000 cm³ of carbon dioxide gas at room temperature.

Task

As a learner of chemistry, prepared a detailed message showing how Abbey will determine the mass, in grams, of sodium hydrogen carbonate that will be fully decomposed to produce the required volume of carbon dioxide.

Where necess	sary use; C=12;	O=16;	H=1;			
1 mole	of gas occupie	s 24000 cm ³	at room temp	perature.		
		<u> </u>				
						—— Е