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## Revision Exercise on Valency and Chemical Compounds

### Form Two and Other Levels

RSE006

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#### Instructions:

- Answer all questions in the spaces provided.
- Estimated time 60minutes.
- For form two skip question number 3(b)

#### SECTION A: Multiple Choice Questions

1. (i) The atomic numbers of elements P, Q, and R are 12, 8, and 7 respectively. Which of the following compounds are ionic?

A. PQ and  $Q_3R_2$ .    B. PQ and  $P_3R_2$ .    C.  $Q_3R_2$  and RQ.    D.  $P_3R_2$  and  $RQ_2$ .

ii. The electronic configuration of magnesium ion is A. 2:8:2 B. 2:8 C. 2:8:3 D. 2:2:8

iii. Most ionic compounds are soluble in A. water B. kerosene C. diesel D. all of these solvents.

iv. Usually non-metals ..... electron(s) to be stable. A. engulf B. force C. gain D. lose

v. According to Mendeleev's periodic law, the elements were arranged in the periodic table in the order of:

A. decreasing atomic numbers B. increasing atomic numbers C. decreasing atomic masses D. increasing atomic masses.

i	ii	iii	iv	v

#### SECTION B: Short Answer Type Questions

2. An atom X of an element, atomic mass 31 contains 15 protons.

(a) (i) State the number of neutrons in X. ....

(ii) Write the electronic configuration of X. ....

(b) State the group in the Periodic Table the element belongs. ....

3. (a) An element X is in Group II of the Periodic Table.

(i) State the type of bond that exists in the chloride of X. ....

(ii) Write the formula of the ion formed by X. ....

(b) The nitrate of X was strongly heated.

(i) State what was observed. ....

(ii) Write an equation for the reaction. ....

4. Study the part of periodic table and answer the following question:

	I							VIII
	II	III	IV	V	VI	VII		
			P		T	R		
S							Q	

a. Which of the elements is/are metal(s)? .....

b. Suppose element P reacts with element T.

i) Write the formula of the compound formed between P and T. ....

ii) What would be the type of bond formed between P and T? .....

c.(i) Which element in the table is least reactive? .....

(ii) Explain your answer in (c)(i). ....

d. (i) Suggest a compound formed between any two elements shown, which would conduct electricity. ....

(ii) Give a reason for your answer in (d)(i). ....

4. Some elements in Period 3 of the Periodic Table are shown in the table below:

<b>Group</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>	<b>VI</b>	<b>VII</b>	<b>O</b>
<b>Element</b>	<b>E</b>	<b>Y</b>			<b>T</b>	<b>X</b>	<b>Q</b>	<b>Z</b>

(a) Write the formula of the compound formed when

(i) T reacts with Q. ....

(ii) E reacts with X. ....

(b) State the type of bonding:

(i) Between the atoms of Y. ....

(ii) When X is reacted with oxygen. ....

(iii) Between Y and Q. ....

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Best regards,

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