THE VILLAGE
INTERNATIONAL SCHOOL
"We Nurture Dreams"

AIM HIGH, TOGETHER WE FLY

Date:13/07/22	MONTHLY TEST -1 (2022-23)	Max marks: 20
GRADE: XI	CHEMISTRY [043]	Time: 1 Hour

General Instructions:

1. There are 9 questions in the question paper.
2. All questions are compulsory.

Qn. No	**SECTION A**	Marks allocated
1	The S.I unit of temperature is : (A) Kelvin (B) Celsius (C) Fahrenheit (D) Centigrade	1
2	Assertion (A): One atomic mass unit is defined as one-twelfth of the mass of one carbon-12 atom. Reason (R): Carbon-12 isotope is the most abundant isotope of carbon and has been chosen as the standard. (A) Both A and R are true and R is the correct explanation of A. (B) Both A and R are true but R is not the correct explanation of A. (C) A is true but R is false. (D) Both A and R are false.	1
3	The number of moles present in 6 gms of carbon is: (A) 2 (B) 0.5 (C) 5 (D) 1	1
4	Formation of CO and CO2 illustrates the law of ————–. (A) Law of conservation of mass (B) Law of Reciprocal proportion (C) Law of Constant Proportion (D) Law of Multiple Proportion	1

<table>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td>SECTION B</td><td></td></tr>
<tr><td>5</td><td>What is the symbol for the SI unit of mole? How is the mole defined?</td><td>2</td></tr>
<tr><td></td><td>SECTION C</td><td></td></tr>
<tr><td>6</td><td>200 mL of 1 M HCl solution is mixed with 800 mL of 0.5 M HCl solution. Calculate the molarity of the final solution.</td><td>3</td></tr>
<tr><td>7</td><td>If two elements can combine to form more than one compound, the masses of one element that combine with a fixed mass of the other element, are in a whole-number ratio.

1. Is this statement true?
2. If yes, according to which law?
3. Give one example related to this law.</td><td>3</td></tr>
<tr><td>8</td><td>Calculate the average atomic mass of hydrogen using the following data:

<table><tr><td>Isotope</td><td>%Abundance</td><td>Molar mass</td></tr><tr><td>^{1}H</td><td>99.985</td><td>1</td></tr><tr><td>^{2}H</td><td>0.015</td><td>2</td></tr></table></td><td>3</td></tr>
<tr><td></td><td>SECTION D</td><td></td></tr>
<tr><td>9</td><td>(i) Explain Dalton’s law Atomic theory
(ii) State Avogadro’s law
(iii) Calculate the mass percent of calcium, phosphorus and oxygen in calcium phosphate $Ca_3(PO_4)_2$ (The molar mass of calcium phosphate is 310 g/mol.</td><td>2
1
2</td></tr>
<tr><td></td><td>THE END</td><td></td></tr>
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