

CLASS:XI	INDIAN SCHOOL MUSCAT FIRST PERIODIC ASSESSMENT				CHEMISTRY															
	SET - A																			
QP.NO.	VALUE POINTS				SPLIT UP MARKS															
1.	b				1															
2.	a/c				1															
3.	Empirical formula				1															
4.	isochores				1															
5.	Boyles law statement				1															
6.	a) $44g=22.4 \quad 66g=x \quad x=33.6L$ b) $40g=6.022 \times 10^{23} \quad 160 g=x, \quad x=24.088 \times 10^{23}$				1 1															
7.	a) Molar volume b) Formula mass				1x2															
8.	a) At -273°C gases occupy zero volume b) Daltons law of partial pressure				1x2															
9.	a) $\text{CH}_4 + 2\text{O}_2 \rightarrow \text{CO}_2 + 2\text{H}_2\text{O}$ LR=Oxygen CO_2 formed, 64 g of O_2 =44 g of CO_2 32 g O_2 =22 g of CO_2 b) $M = \frac{10 \% d}{M} = \frac{10 \times 49 \times 2.8}{98} = 14 \text{ M}$				$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$															
10.	<table border="1"> <thead> <tr> <th>Element</th> <th>mass</th> <th>moles</th> <th>Ratio</th> </tr> </thead> <tbody> <tr> <td>C</td> <td>24.27</td> <td>$24.27/12 = 2$</td> <td>1</td> </tr> <tr> <td>H</td> <td>4.07</td> <td>$4.07/1 = 4.07$</td> <td>2</td> </tr> <tr> <td>Cl</td> <td>71.65</td> <td>$71.65/35.5 = 2$</td> <td>1</td> </tr> </tbody> </table> <p>$\text{EF} = \text{CH}_2\text{Cl} = 49.5$ $n = \frac{98.96}{49.5} = 2$ $\text{MF} = \text{C}_2\text{H}_4\text{Cl}_2$</p>	Element	mass	moles	Ratio	C	24.27	$24.27/12 = 2$	1	H	4.07	$4.07/1 = 4.07$	2	Cl	71.65	$71.65/35.5 = 2$	1	$(\frac{1}{2} \times 3 = 1\frac{1}{2})$		$\frac{1}{2}$ 1
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11.	a) $T = PV/nR = 10 \times 2.46 / 0.0821 \times 1 = 299.63 \text{ K}$ b) Volume is halved	2 1																		