

CHOITHRAM SCHOOL MANIKBAGH INDORE
CLASS XI SESSION: 2017-18

Subject: Chemistry

Assignment no.: 1

Allotment Date: 21/7/17

Submission Date: 27 /07/17

SNO	QUESTIONS	MARKS	LEVEL
OBJECTIVE TYPE			
1	Define Avogadro law	1	Knowledge
2	What do you mean by threshold frequency of metal?	1	understanding
3	In combustion of methane, what is the limiting reagent and why?	1	Hot
SHORT ANSWER TYPE I			
4	A welding fuel gas contains carbon and hydrogen only. Burning a small sample of it in oxygen gives 3.38 carbon dioxide, 0.690 g of water and no other products. Volume of 10.0 L (measured at STP) of this welding gas is found to weigh 11.6 .What is its empirical formula and molar mass.	2	Hot
5	State law constant proportions with suitable example.	2	knowledge
6	Why Molality is preferred over molarity in expressing the concentration of a solution?	2	understanding
7	Molarity of H ₂ SO ₄ (density 1.8g/mL) is 18 M. What is its molality?	2	Logical
SHORT ANSWER TYPE II			
8	a)What do you understand by saying that energy of electron is quantized? b) Why electronic energy is always negative?	3	understanding
9	Concentrated aqueous sulphuric acid is 98% H ₂ SO ₄ by mass and has density of 1.84gcm ⁻³ .What volume of concentrated acid is required to make 5.0litre of .500M H ₂ SO ₄ solution.	3	Multi conceptual
10	A sample of drinking water was found to be severely contaminated with chloroform,CHCl ₃ , supposed to be carcinogenic in nature. The level of contamination was 15 ppm (by mass). (i) Express this in percent by mass. (ii) Determine the molality of chloroform in the water sample. (iii)Mention the value associated with this question.	3	value
LONGANSWER TYPE			

11	<p>a) Gastric juice contains 3g of HCl per litre. If a person produces about 2.5 liters of gastric juice per day, how many antacid tablets each containing 400mg of $\text{Al}(\text{OH})_3$ are needed to neutralize all the HCl produced in one day.</p> <p>b) Electrons are emitted with zero velocity from a metal surface when it is exposed to radiation of wavelength 6800\AA. What is work function and threshold frequency of metal.</p>	3+2	Hot
12	<p>1. Calculate wave number for longest wavelength transition in the Balmer series of atomic hydrogen.</p> <p>2. A golf ball has a mass of 40g. If uncertainty in measurement of velocity is $.9\text{ms}^{-1}$ then what is the uncertainty involved in measurement of its position.</p>	5	Logical

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