

DELHI PUBLIC SCHOOL, JAMMU

HALF YEARLY ASSIGNMENT(2019-20)

ASSIGNMENT : CHEMISTRY

SUB: CHEMISTRY

CLASS :12TH

- Q.1. The rate constant for a first order reaction is 60s^{-1} . How much time will it take to reduce the initial concentration of the reactant to its $1/16^{\text{th}}$ value?
- Q.2. Give four important difference between order of the reaction and molecularity of the reaction.
- Q.3. Define the following terms i) elementary reaction ii) half-life period of a reaction.
- Q.4 How is aspirin (Acetylsalicylic acid) prepared from salicylic acid?
- Q.5 Which out of propan-1-ol and propan-2-ol is stronger acid?
- Q.6 What is denaturation of an alcohol.
- Q.7 Give IUPAC name of $\text{CH}_3\text{OCH}_2\text{OCH}_3$
- Q.8 Diethyl ether does not react with sodium. Explain.
- Q.9 Under what condition do non –ideal solutions show negative deviations?
- Q.10 State Henry's law. What is the significance of K_H ?
- Q.11 Why is an increase in temperature observed on mixing chloroform and acetone?
b) Why does sodium chloride solution freeze at a lower temperature than water?
- Q.12 Determine the amount of CaCl_2 ($i= 2.47$) dissolved in 2.5 litres of water such that its osmotic pressure is 0.75 atm at 27°C ?
- Q.13 What do you mean by selectivity and activity of catalysts.
- Q.14 Adsorption is always exothermic. Why?
- Q.15 Chemisorption is highly specific. Illustrate with an example?
- Q.16 What is the difference between multimolecular and macromolecular colloids?
- Q.17 Differentiate between lyophilic and lyophobic colloids?

Q.18 Give the working of fuel cell.

Q.19 Give the mechanism for corrosion.

Q.20 What is the role of silica in extraction of copper?

Q.21 Give the working of zone of combustion in extraction of iron.

Q.22 Alkyl halides are immiscible in water. Why?

Q.23 How will you convert:

(a) But-1-ene to But-2-ene

(b) 1-Chlorobutane to 1-Fluorobutane

Q.24 Give the mechanism for the reaction of dimethyl ether with HI.

Q.25 What is the role of depressants in froth floatation process?