

DELHI PUBLIC SCHOOL, JAMMU
REVISION SHEET FOR CYCLE TEST I (2018-19)

CLASS: XII

SUBJECT: CHEMISTRY

Topics: Solid state, Solutions, Electrochemistry, Haloalkanes and haloarenes, Alcohols, phenols and ethers

Very short questions:

Q.1 Define F-centre.

Q.2 Define electrode potential.

Q.3 What are isotonic solutions?

Q.4 Determine formula for solid having A atoms at corners and B atoms at body centre.

Q.5 Give the general formula for alcohols.

Short answer type questions:

Q.6 Explain how vacancies are introduced in ionic solids, when cation of higher valency is introduced in them.

Q.7 (a) A solute undergoes tetramerization in non-aqueous solution. Calculate 'i'.

(b) What are non-ideal solutions showing positive deviations from Raoult's law? Which type of azeotropic behavior does they show?

Q.8 The standard electrode potential for galvanic cell is 1.1 V. Calculate the standard Gibb's free energy for reaction: $\text{Zn} + \text{Cu}^{2+} \longrightarrow \text{Zn}^{2+} + \text{Cu}$.

Q.9 Discuss the following:

(a) Reimer Tiemann reaction (b) Kolbe's reaction (c) Reaction of phenol with bromine water

Q.10 An element with molar mass 2.7×10^{-2} kg/mol forms a cubic unit cell with edge length of 405 pm. If the density of unit cell is 2.7×10^3 kg/m³, what is the nature of unit cell?

Long Answer Type Questions:

Q.11 (a) A solution of 12.5 gm of unknown solute in 170 g water gave a boiling point elevation of 0.63 K. Calculate the molar mass of solute.

(b) What are non-ideal solutions showing negative deviations?

Q.12 (a) Electrolytic conductivity of 0.30 M solution of KCl is 3.72×10^2 Scm⁻¹. Calculate its molar conductivity.

(b) Discuss the working of fuel cell.

Q.13 (a) Which is more reactive towards S_N^1 reaction: 1-Chlorobutane or 2-Chlorobutane?

(b) Why is ethanol added to the bottle containing chloroform?

Q.14 (i) How are the following conversions carried out:

(a) Ethanol to Fluoroethane (b) Benzene to Diphenyl (c) Butane to n-Octane

(ii) Give three chemical properties for ethers.

Q.15 (a) Alcohols are weak acids than phenols. Why?

(b) Complete the following reactions:

