



NATIONAL EDUCATION SOCIETY FOR TRIBAL STUDENTS
(An Autonomous Organization Under Ministry Of Tribal Affairs, Govt. Of India)
EKALAVYA MODEL RESIDENTIAL SCHOOL TAVAGA

Website: <https://emrstavaga.in>

Email Id: kreismdrs217@gmail.com

TALUK: GOKAKTAVAGA-591101

DISTRICT: BELAGAVI



II PUC SCIENCE SUMMER VACATION HOLIDAY HOMEWORK

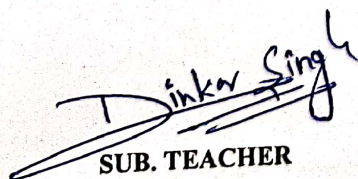
SUBJECT : CHEMISTRY (034)

Q. 1 With respect to Alcohols, phenols and ethers, explain the methods of preparation of Alcohols, phenols and ethers, physical properties, chemical properties and uses of some commercially important alcohols.

Q.2 With respect to electrochemistry describe an electrochemical cell and differentiate between galvanic and electrolytic cells; Nernst equation for calculating the EMF of galvanic cell and define standard potential of the cell; derive relation between standard potential of the cell, Gibbs energy of cell reaction and its equilibrium constant; define resistivity (r), conductivity (k) and molar conductivity of ionic solutions; differentiate between ionic (electrolytic) and electronic conductivity; describe the method for measurement of conductivity of electrolytic solutions and calculation of their molar conductivity; justify the variation of conductivity and molar conductivity of solutions with change in their concentration and define molar conductivity at zero concentration or infinite dilution; enunciate Kohlrausch law and its applications; understand quantitative aspects of electrolysis; describe the construction of some primary and secondary batteries and fuel cells; explain corrosion as an electrochemical process.

Q.3 With respect to chemical kinetics define the average and instantaneous rate of a reaction; express the rate of a reaction in terms of change in concentration of either of the reactants or products with time; distinguish between elementary and complex reactions; differentiate between the molecularity and order of a reaction; define rate constant; discuss the dependence of rate of reactions on concentration, temperature and catalyst; derive integrated rate equations for the zero and first order reactions; determine the rate constants for zero and first order reactions; describe collision theory.

Q.4 Explain the following name reactions with suitable examples (to be done A4 size paper)
Sandmeyer reaction, Gattermann reaction, Finkelstein reaction, Swarts reaction, Wurtz reaction, Wurtz-Fittig reaction, Kolbe's reaction, Reimer-Tiemann reaction, Rosenmund reduction, Stephen reaction, Clemmensen reduction, Wolff-Kishner reduction, Aldol condensation, Cannizzaro reaction, and Hofmann bromamide degradation


SUB. TEACHER

(DINKAR SINGH)
(PGT-CHEMISTRY)

PRINCIPAL