ST. LAWRENCE HIGH SCHOOL
A JESUIT CHRISTIAN MINORITY INSTITUTION
WORKSHEET-33(CLASS-12)
TOPIC- ELECTROCHEMISTRY
SUBTOPIC- CONDUCTANCE

SUBJECT – CHEMISTRY   **F.M. - 15**
DURATION – 30 mins   **DATE -30.06.20**

1.1 Aqueous solution of which of the following compounds is the best conductor of electric current?
(a) Acetic acid (b) Hydrochloric acid (c) Ammonia d) Fructose

1.2 The unit of conductance-
(a) Siemens (b) mho (c) Ohm (d) Both a and b

1.3 An increase in the conductivity equivalent of a solid electrolyte with dilution is primarily due to-
(a) Increased ionic mobility of ions (b) 100 percent electrolyte ionisation with natural dilution
(c) increase in both ion numbers and ionic mobility (d) A rise in ion counts

1.4 The ionic conductance of Ba^{2+} and Cl^- are respectively 127 and 76 ohm^{-1} at infinite dilution. The equivalent conductance of $BaCl_2$ at infinite dilution will be-
(a) 139 (b) 203 (c) 279 (d) None of these

1.5 When heating one end of a metal plate, the other end gets hot because of –
(a) Resistance of the metal (b) mobility of atoms in the metal (c) energised electrons moving to the other end (d) minor perturbation in the energy of atoms.

1.6 The weight of silver displaced by a quantity of electricity which displaces 5600ml of O_2 at STP will be-
(a) 5.4g (b) 10.8g (c) 54.9g (d) 108.0g

1.7 On electrolysis of dilute sulphuric acid using platinum electrodes, the product obtained at the anode will be-
a) Hydrogen b) oxygen c) hydrogen sulphide d) Sulphur dioxide

1.8 Once a current of 1.0 ampere was passed through one liter of $CuCl_2$ solution for 16 min and 5sec, all of the solution's copper was deposited at cathode. The power of solution $CuCl_2$ was (Molar mass of Cu = 63.5; Faraday constant = 96,500 C/ mol)-
(a) 0.01N (b) 0.01M (c) 0.02M (d) 0.2N

1.9 **A device that converts energy of combustion of fields like hydrogen and methane directly into electrical energy is known as-**
a) Electrolytic cell b) Dynamo c) Ni-Cd cell d) Fuel cell

1.10 **Which reaction is not feasible?**
a) $2KO + Br_2 \rightarrow 2KBr + I_2$ b) $2KBr + I_2 \rightarrow 2KI + Br_2$ c) $2KBr + Cl_2 \rightarrow 2KCl + Br_2$
d) $2H_2O + 2F_2 \rightarrow 4HF + O_2$

1.11 **The unit of equivalent conductivity-**
a) $S\ cm^2\ equivalent^{-1}$ b) $S\ cm^2\ equivalent$ c) $S\ cm^3\ equivalent$ d) $S\ cm\ equivalent$

1.12 **Without losing its concentration ZnCl₂ solution cannot be kept in contact with-**
a) Au b) Al c) Pb d) Ag

1.13 **The factors which determine the flow of electricity through a solution-**
a) Nature of electrolyte or interionic attractions **b)** The nature of the solvent and its viscosity c) Potential difference d) Both a and b

1.14 **Electrode potential of a cell is-**
a) An intensive property b) Extensive property c) Both a and b d) can't be predicted

1.15 **The conductivity of electrolytic (ionic) solutions depends on-**
a) the nature of the electrolyte added b) temperature c) size of the ions produced and their solvation d) all of these

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