

### ST. LAWRENCE HIGH SCHOOL A JESUIT CHRISTIAN MINORITY INSTITUTION SOLUTION-34(CLASS-12) <u>TOPIC</u>- ELECTROCHEMISTRY <u>SUBTOPIC</u>- CONDUCTANCE



F.M. - 15 DATE -07.01.20

SUBJECT – CHEMISTRY DURATION – 30 mins

1.1 The unit of conductance cannot be expressed in – (a) mho (b) (ohm)<sup>-1</sup> (c) Siemens d) ohm/m Ans. b

1.2 The SI unit of specific resistance is(a) Ohm m (b) Ohm/m (c) Ohm/m<sup>2</sup> (d) (Ohm)<sup>-1</sup>
Ans. a

1.3 The reciprocal of resistivity of a conductor is-(a) Conductance (b) capacitance (c) conductivity (d) none of theseAns. c

1.4 The ionic conductance of Ba<sup>2+</sup> and Cl<sup>-</sup> are respectively 127 and 76 ohm<sup>-1</sup> at infinite dilution. The equivalent conductance of BaCl<sub>2</sub> at infinite dilution will be-(a) 139 (b) 203 (c) 279 (d) None of these Ans. c

1.5 In order to measure current in a resistance present in a circuit the ammeter is connecteda) In series b) in parallel c) in series or parallel d) nothing can be decidedAns. a

1.6 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.

### Ans. d

1.7 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 Ans. a

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 Ans. b

### 1.8 Good conductors have many loosely bound-

(a) Atoms (b) protons (c) molecules (d) electrons Ans. d

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 Ans. d

1.10 The reciprocal of electrical resistance is-a) Voltage b) current c) conductance d) none of the aboveAns. c

### 1.11 The unit of equivalent conductivity-

a) S cm<sup>2</sup> equivalent<sup>-1</sup> b) S cm<sup>2</sup> equivalent c) S cm<sup>3</sup> equivalent d) S cm equivalent Ans. a

1.12 Without losing its concentration ZnCl<sub>2</sub> solution cannot be kept in contact witha) Au b) Al c) Pb d) Ag Ans. b

# 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

### Ans. d

1.14 As temperature increases electrolytic conduction-

a) Increases b) Decreases c) Remains unaffected d) None of the above **Ans. a** 

### 1.15 With rise in temperature the resistance of semiconductors-

a) Decreases b) Increases c) First increase and then decrease d) Remains constant Ans. a

## PREPARED BY: MR. ARNAB PAUL CHOWDHURY