ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



<u>TOPIC</u>- ELECTROCHEMISTRY <u>SUBTOPIC</u>- ELECTROCHEMICAL CELL SUBJECT – CHEMISTRY DURATION – 30 mins

SOLUTION-32(CLASS-12)

F.M. - 15 DATE -29.06.20

1.1 Which among the following is not a component of salt bridge?

(a) KCl (b) KNO₃(c) MgCO₃ d) NH₄NO₃ Ans. c

1.2 The unit of Standard electrode potential is-

(a)Siemens(b) Amp(c) Ohm(d) Volt Ans. d

1.3 The value of cell constant for a cell-

(a) Is constant(b) Can't be predicted(c) May change(d)None of these

Ans. a

1.4 The Nernst equation is useful for determining-

(a) Electrode potential of a cell(b) Equilibrium constant (c) Both a and b (d) None of these **Ans. c**

1.5 The feasibility of a cell reaction depends on-

(a) $E_{cell} = 0$ (b) $E_{cell} > 0$ (c) $E_{cell} < 0$ (d) Can't be predicted **Ans. b**

1.6 E_{Cell}^{\ominus} = 1.1V for Daniel cell. Which of the following expressions are correct description of state of equilibrium in this cell?

(a)
$$1.1 = K_c$$

(b) $\frac{2.303 \text{RT}}{2\text{F}} \log K_c = 1.1$
(c) $\log K_c = \frac{2.2}{0.059}$

(*d*)
$$\log K_c = 1.1$$

Ans. b and c

1.7The value of (2.303xRT/F) at 298K temperature-

a) 0.519 b) 0.905 c) 0.509 d) 0.059

Ans. d

1.8 The Lowest electrical conductivity of the following aqueous solutions is of-

(a) 0.1 M acetic acid (b) 0.1 M chloroacetic acid (c) 0.1 M fluoroacetic acid(d) 0.1 M difluoroacetic acid

Ans. a

1.9 The liquid media used inside a salt bridge is-a) Agar-agar gel b) water c) Ethanol d) Dimethyl etherAns. a

1.10 The value of standard hydrogen electrode potential isa) 0V b) 0.059V c) 0.015V d) 5.29V Ans. a

1.11Simple Voltaic cell is an example of-

a) Electrochemical cell b) Electrolytic cell c) Both and b d) None of these **Ans. a**

1.12Voltameter is an example of-

a) Electrochemical cell b) Electrolytic cell c) Both and b d) None of these

Ans. b

1.13The difference between the electrode potentials of two electrodes when no current is drawn through the cell is called-

a) Cell potential b) Cell e.m.f c) Potential difference d) Cell voltage Ans. b

1.14Electrode potential of a cell is-

a) An intensive property b) An Extensive property c) Both a and b d) can't be predicted **Ans. a**

1.15 With increase in standard reduction potential, the oxidizing power-

a) Increases b) Decreases c) Remains same d) can't be predicted Ans. a

PREPARED BY: MR. ARNAB PAUL CHOWDHURY