

# ST. LAWRENCE HIGH SCHOOL A JESUIT CHRISTIAN MINORITY INSTITUTION SOLUTION-08(CLASS-11) TOPIC- SOME BASIC CONCEPT OF CHEMISTRY SUBTOPIC- CALCULATION OF STRENGTH



SUBJECT – CHEMISTRY DURATION – 30 mins F.M. - 15 DATE -23.06.20

1.1~1~M of Fe (OH)  $_3$  Solution is -

a) 2N b) 3N c) 1N d) 0.333N

Ans. b

# 1.2 0.5 gram equivalent of H<sub>2</sub>S is equal to-

a) 0.25 Moles of H<sub>2</sub>S b) 1 mole of H<sub>2</sub>S c) 0.05 moles of H<sub>2</sub>S d) None of the above

### Ans. a

1.3 300 ml 0.2 M HCl and 200 ml of 0.03M  $H_2SO_4$  are mixed. The normality of the resulting mixture will be-

a) 0.044 N b) 0.72 N c) 0.84 N d) 0.144 N

Ans. d

1.4 Find the Normality of the solution containing 0.5 gm of NaOH in 1L solution-

a) 0.0125 N b) 0.125 N c) 0.5 N d) 0.0250 N

Ans. a

1.5 How much water is to be added to prepare a 0.25N HCL solution from 0.5 N HCL 1 L solution-

a) 500 ml b) 100 ml c) 1000 ml d) 250 ml

# Ans. c

1.6 20 ml of a 0.125 N HCl solution were neutralised by 25 ml of a KOH solution. What is the normality of KOH solution?

a) 0.01N b) 0.1 N b) 0.2 N d) None of the above

Ans. b

1.7 Calculate the normality of 0.321 g sodium carbonate when it is mixed in a 250 mL solution.

a) 0.0755 N b) 0.0725 N c) 0.0355 N d) 0.0955 N

#### Ans. a

1.8 Calculate the number of moles & molarity of N/2 500 ml solution of  $H_2SO_4$ -

a) 0.125 and 0.25M b) 0.25 and 0.125M c) 0.25 and 0.25M d) 0.125 and 0.125M Ans. a

1.9 Calculate the normality of NaOH solution Formed by dissolving 0.2 gm NaOH to make 250 ml solution-

a) 0.3N b) 0.2N c) 0.4N d) 0.35N

#### Ans. b

### 1.10 Which among the following is temperature independent?

a) Normality b) Molarity c) Formality d) Molality

#### Ans. d

# 1.11 What is the volume of a 0.2 M AgNO<sub>3</sub> solution containing 8.5 grams of AgNO<sub>3</sub>?

a) 0.25 L or 150 ml b) 0.25 L or 250 ml c) 0.15 L or 150 ml d) 0.75 L or 750 ml

### Ans. b

# 1.12 How many grams of KMnO<sub>4</sub> is required to prepare 1.0 L of a solution of 1.5 M KMnO<sub>4</sub>?

a) 477g b) 230g c) 237 d) 327g

#### Ans. c

1.13 What is the molarity of a solution containing 72.06 grams of  $BaCl_2$  in enough water to make 800 mL of solution?

a) 0.133 M b) 0.336 M c) 0.433 M d) 0.633 M

#### Ans. c

1.14 What is the molarity of a solution containing 11.522 grams of KOH in enough water to make 350 mL of solution?

a) 0.586 M b) 0.786 M c) 0.625 M d) 0.725 M

#### Ans. a

1.15 What will the concentration of citric acid be if 25.00 ml of the citric acid solution is titrated with 28.12 mL of 0.1718 N KOH?

a) 0.2126 N b) 0.2332 N c) 0.1236 N d) 0.1932 N

#### Ans. d

# PREPARED BY: MR. ARNAB PAUL CHOWDHURY