C-18-COMMON-**104F**

6104

BOARD DIPLOMA EXAMINATION, (C-18)

JUNE - 2019

COMMONS - I SEMESTER EXAMINATION

GENERAL ENGINEERING CHEMISTRY

Time : 2 Hours] [Total Marks : 40

PART - A 08×01=08

Instructions : *(1) Answer ALL questions*

(2) Each question carries ONE marks

1 State Aufbau principle.

2 What is a buffer solution ?

3 Define an electrolyte.

4 Define degree of hardness.

5 What is reverse osmosis ?

6 Mention the salts responsible for temporary hardness of water.

7 What is an insulator ?

8 Write the relation between chemical equivalent and electro chemical equivalent.

PART - B 04×03=12

Instructions : *(1) Answer any FOUR questions.*

(2) Each question carries THREE marks.

9 (a) Explain the formation of Ionic bond in NaCl.

OR

(b) Write three disadvantages of using hard water in industries.

10 (a) Find the pH of 0.001M HCl solution.

OR

(b) Explain the electrolysis of fused NaCl.

11 (a) Explain the desalination of sea water by electro dialysis.

OR

(b) Explain de-fluoridation of water by Nalgonda technique.

12 (a) State and explain Faraday's first law of electrolysis.

OR

(b) What are strong and weak electrolytes ?

PART - C

04×05=20

Instructions : *(1) Answer any **FOUR** questions.*

*(2) Each question carries **FIVE** marks.*

13 (a) Find the Normality of a solution containing 5.3g of sodium carbonate in 500 ml solution.

OR

(b) Explain Permutit process of softening hard water.

14 (a) Explain biodiversity and the threats to biodiversity.

OR

(b) Write five differences between metallic conductors and electrolytic conductors.

15 (a) Explain the different methods used for the sterilization of water.

OR

(b) Explain ion-exchange process of softening hard water.

16 (a) A current of 3 amp is passed through $AgNO_3$ solution for 20 min. Find the weight of silver deposited at cathode. (At Wt. of Ag is 108)

OR

(b) Explain electrolytic refining of copper metal.