FILL IN THE BLANKS

1. WATER AND ITS TREATMENT

1. Convert 10 ppm of hardness of water in to Degree Clark (Cl°) _____.
2. Which Phosphate is used for treating of too alkaline water _____.
3. Temporary hardness is caused by _____.
4. Cation Exchange resins are regenerated by using _____.
5. Hardness of water is expressed in equivalents of _____.
6. The chemical name of Calgon is _____.
7. Temporary hardness of water can be removed by_____.
8. Anion exchange resins are regenerated by using _____.
9. _____is considered to be the naturally distilled water.
10. A semi permeable membrane allows the flow of _____.

2. BATTERY CHEMISTRY & CORROSION

1. In Li-Ion cell _____is used as cathode.
2. In Zn-Air battery _____is used as anode.
3. In Methanol-Oxygen fuel cell _____is used as anode.
4. In Solid Oxide fuel cell _____ gas is passed through the cathode.
5. Solar cell is also known as _____.
6. The rate of corrosion _____with the increasing temperature.
7. Impressed current cathodic protection, converted the corroding metal from _____.
8. The example of Sacrificial anodic metal is _____.
9. In wet corrosion Absorption oxygen takes place in _____medium.
10. In waterline corrosion the anode will be _____oxygenated part.

1. WATER AND ITS TREATMENT

1. What is the pH range maintained in EDTA method? **[ ]**

a. 4-5 **b.** 6-7 **c.** 9-10 **d.** 12-14

2. The colour of stable complex in EDTA method is **[ ]**

a. Blue **b.** Wine red

c. Colour less **d.** Purple

3. Which of the chemical are act as Coagulants help in the settling of **[ ]**

a. Alum **b.** $Al_2 (SO_4)_3$

c. Both (a) & (b) **d.** Mg SO_4

4. Desalination of water is. **[ ]**

a. Removal of NaCl **b.** Removal of suspended

c. Removal of gases **d.** Removal of metals

5. Which of the following will act as disinfectant? **[ ]**

a. Cl_2 **b.** O_2

c. F_2 **d.** H_2

6. EDTA method of determining hardness of water can be used to determine. **[ ]**

a. All types of hardness **b.** Temporary hardness only

c. Permanent hardness only **d.** alkaline hardness only

7. Coagulants help in the settling of. **[ ]**

a. Suspended impurities only **b.** Fine suspended matter only

c. Colloidal particles only **d.** both (b) & (c)

8. Reverse osmosis process is also called as. **[ ]**

a. Super filtration **b.** Hyper filtration

c. Both (a) & (b) **d.** Hypo filtration

9. Disinfection by ozone is due to liberation of **[ ]**

a. Oxygen **b.** Nascent oxygen

c. Molecular oxygen **d.** Oxide

10. Potable water treatment doesn't involve **[ ]**

a. Demineralization **b.** sedimentation

c. filtration **d.** disinfection

2. BATTERY CHEMISTRY & CORROSION

1. A battery is a device that can operate **[ ]**

a. as electrolytic cell **b.** as voltaic cell

c. both as electrolytic cell and voltaic cell **d.** none of the above

2. The cell whose reaction is reversible is called **[ ]**

a. Fuel cell **b.** Primary cell

c. Secondary cell **d.** All the above

3. Fuel cells are used as auxiliary energy source in **[ ]**

b. Trains **b.** Aeroplanes

c. Space vehicles **d.** Automobile engines

4. The Li-Ion battery is a **[ ]**

a. Fuel cell **b.** Primary cell

c. Secondary cell **d.** All the above

5. What is the electrolyte used in Zn-air battery. **[ ]**

a. KOH **b.** NaOH **c.** LiOH **d** $Mg(OH)_2$

6. Corrosion is a process of **[ ]**

a. Oxidation **b.** Reduction **c.** Electrolysis **d.** ozonolysis

7. The chemical composition of rust is **[ ]**

c. $Fe_2O_3.H_2O$ **b.** $Fe_3O_4.\ xH_2O$

c. $Fe_2O_3.xH_2O$ **d.** $Fe_3O_4.H_2O$

8. In waterline corrosion the maximum amount of corrosion takes place **[ ]**

a. Along a line just above the level of the water meniscus

b. Along a line at the level of the water meniscus

c. Along a line just below the level of the water meniscus

d. At the bottom of the vessel.

9. The rate of corrosion of iron in atmosphere depends upon: **[ ]**

a. The humidity of the atmosphere **b.** The degree of pollution of the atmosphere

c. The frequency of rain fall **d.** All of these factors

10. When a buried pipeline is protected from corrosion by connecting to Mg block, it is called **[ ]**

a. Impressed voltage protection **b.** Sacrificial cathodic protection

c. Sacrificial anodic protection **d.** Any of these