**UNIT-1**

**WATER-OBJECTIVE**

1. The Process of removing Common salt from Water is called ( b )

a) Deionisation b) Desalination c) Brackish water d) Filtration

1. The percentage of NaCl present in sea water is ( a )

a) About 2.6% b) About 3.6%

c) About 4.6% d) About 5.6%

1. Blow down operation causes the removal of ( a )

a) Sludge’s b) Scales c) Both of them d) Cold water

1. Colgan is a trade name given to ( a )

a) Sodium hexa meta phosphate b) magnesium phosphate

c) calcium silicate d) sodum sulphate

1. water can be sterilized by ( c )

a) chlorine b)ozone c) both d)sodium hydroxide

1. The water which is fit for drink is called ( c )

a) hard water b)brackish water c) potable water d)none

1. priming and foaming in boilers produce steam of ( a )

a) wet b)dry c)soft d)none

1. Dissolved coabon dioxide in water can be removed by adding ( a )

a) amminoa b)sodium chloride c)HCl d)sulphuric acid

1. pH of neutral water is ( a )

a) 7 b)<7 c) >7 d)14

1. The exhausted cation exchange resincan be regenerated by washing with ( b )

a) dil NaOH b) dil HCl c)distilled water d)brackish water

1. Temporary Hardness of water can be removed by ( c )

a) Filtration b) Screening c) Boiling d) Sedimentation

1. Purest form of Natural Water is ( c )

a) Sea water b) River water c) Rain Water d) Lake Water

1. Brackish Water mostly contains dissolved ( d )

a) K Salts b) Mg Salts c) Ca Salts d) NaCl

1. Brackish water can be purified by using ( d )

a) lime soda process b) Permutit process c) Filtration d) Reverse Osmosis Method

1. Hard water containing ( a )

a) Ca+2 and Mg+2 b) K+ and Li+ c) CO2 and O2 d) NO3- and NO2-

1. Water containing Calcium chloride and Magnesium Sulphate is ( b )

a) Temporary hardness b) Permanent Hardness c) Both of them d) Soft only

1. Best method of removing hardness of water is ( a )

a) Ion exchange process b) Permutitt c) Lime soda d) Boiling

1. Hardness of water is expressed in terms of equivalents of ( c )

a) MgCO3 b) Na2 CO3 c) Ca CO3 d) K2 CO3

1. Caustic Embrittlement causes due to the presence of residual in boiler water ( b )

a) NaCl b) NaOH c) MgCO3 d)K NO3

1. A hard sticky precipitate formed on the inner surface of the boiler is called ( d )

a) Sludge b) Oil c) Grease d) Scale

1. Which of the following is responsible for Temporaryhardness ( d )

a) MgCl2 b) CaSO4 C) MgSO4 d) Mg(HCO3)2

1. Which of the following is a powerful disinfectent ( b )

a) O2 b) Cl2 c) CaOCl2 d)N2

1. ------------- indicator is used for determination of hardness by EDTA ( c )

a) Methyl orange b) Methyl red c) EBT d) FSB-F

1. Anion Exchange resin can be regenerated by using ( a )

a) dil.NaOH b) dil.HCl c) dil. NaCl d) dil.KCl

1. Water is hard when it contains ( d )

a) Alkalinity b) Acidity c) Dissolved potassium salts

d) Dissolved Ca and Mg salts

1. Loose and slimmy precipitate formed within the boiler is called ( b )

a)Scale b) Sludge c) Priming D) Foaming

1. Solubility of calcium sulphate in water ( b )

a)increases with rise of temperature b) decreases with rise of temperature

c) remains unaltered with rise of temperature

d) does not adopt any definate pattern with rise of temperature

1. Permanant hardness of water cannot be removed by ( c )

a) Treatment with lime soda b) Permutitt c) Boiling d) Ion exchange

1. Hard water is unfit for use in boilers for generating steam because ( d )

a)Its boiling point is higher b) Steam is generated at high temperature

c) Water decomposes into O2 and H2 d) Its produces scales inside the boiler

1. Estimatation of hardness of water by EDTA is used to determine ( d )

a) alkaline hardness b)Temporary hardness only c) Permanent hardness only

d) all the above

1. The method by which the ions are pulled out of salt water by direct ( a )

current and employing thin, rigid membrane pair is called

a)Electrodialysis b) Reverse Osmosis c) Zeolite d) Ion exchange process

1. The purification of brackish water by reverse osmosis is also called as ( a )

a) Super filtration b) Supra filtration c) Hypo filtration d) Filtration

1. One part of CaCO3 equivalent hardness per 105 parts of water is called ( c )

a) Degree clark b) ppm c) Degree french d) mg/L

1. Boiler corrosion caused by using highly alkaline water in a boiler is called ( c )

a) Corrosion b) Boiler corrosion c) Caustic embrittlement d) Erosion

1. Caustic embrittlement is a type of ( a )

a)Boiler corrosion b) Conditioning c) Scale formation d) Sludge formation

1. Liquid chlorine is a most effective ( a )

a) Diainfectant b) Coagulant c)Flocculant d) Sterilizing agent

1. Sodium meta aluminate used in internal treatment of boiler water produces

flocculant precipitates of ( a )

a)Mg(OH)2 and Al(OH)3 b) NaOH and Al(OH)3 c) Ca(OH)2 and Al(OH)3

d) Mg(OH)2 and Ca(OH)2

1. In low pressure boilers carbonate Conditioning of boiler feed water is carried

out to remove ( b )

a)CaCO3 b) CaSO4 c) CaCl2 d)CaNO3

1. The process of allowing water to stand undisturbed in big tanks for setting of the

suspend particles due toforce of gravity ( c )

a)Coagulation b) Conditioning c) sedimentation d) screening

1. The composion of alum is ( a )

a) K2SO4. Al2(SO4)3. 24 H2O b) K2(SO4)3. Al2(SO4)3. 24 H2O

c) ) K2SO4. Al2(SO4)3. 20 H2O d) ) K2SO4. Al2SO4. 24 H2O

1. Ferrous sulphate is commonly used in the treatment of muncipal water for ( b )

a) Filtration b) Flocculation c) Sedimentation d) Disinfection

1. The formula of chloramine is ( a )

a) ClNH2 b) NHCl2 c) NCl3 d) NH2Cl2

1. Disinfection by ozone is due to liberation of ( b )

a) O2 b) Nascent oxygen c) molecular oxygen d) oxide

1. Tannins and agar agar are used for ( b )

a) Phospate conditioning b) Carbonate conditioning c) Colloidal conditioning

d) Colgon conditioning

1. The process of wet steam formation is called ( b )

a) Foaming b) Priming c) Corrosion d) Caustic embrittlement

1. Mechanical steam purifiers avoid ( b )

a) Corrosion b) Priming c) Scale formation d)Sludge formation

1. Caster oil is a ( b )

a) Antiskinning agent b) antifoaming agent c) anti ageing agent

d) anti corrosive agent

1. on addition of chlorine to water ------------- acid is produced which is powerful

germicide ( a )

a)HOCl b) Hypo chlorite acid c) Sulphuric acid d) Nitric acid

1. The external treatment of boiler feed water done by ( a )

a) Lime soda process b) Sodium sulphate treatment c) Calgon process

d) Sodium aluminate treatement

1. Phospate conditioning of boiler feed is carried out by ( a )

a) Na3PO4 b)Ca3(PO4)2 c) Mg3(PO4)2 d) H3PO4