

## EEE - Assignment - 3

Q.1. Which of the following is economical distribution system?

A.1 (a) Gravity System

Q.2. The pressure in the distribution mains does not depend on

A.2 (d) Quality of water

Q.3. In water treatment plant, dissolved gases, iron and manganese can be removed from water by -

(d) Aeration followed by coagulation

Q.4. Which type of water is generally used in the treatment of water?

A.4 (c) Raw water

Q.5. The correct sequence of treatment of typical turbid surface water is -

A.5 (c) Coagulation, flocculation, sedimentation, filtration

Q.6. Explain the process of sedimentation aided coagulation in water treatment plant.

A.6 1) It is an accelerated sedimentation process.

2) In this process, capture of the colloidal particle which is escaped during the plain sedimentation.

- 3) Colloidal particles are negatively charged particles, can be removed by coagulation.
- 4) Coagulants are chemical compounds, which are positively charged and hence capture colloidal particles by charge neutralization.
- 5) The commonly used coagulants in this process are "Aluminium Sulphate, ferrous sulphate and chlorinated carbons.

Q.7. Explain water distribution system of your area.

- A.7. - My area municipality is Navi Mumbai Municipal Corporation (NMMC). Before 2003 NMMC was dependent to purchase treated water but later gigantic step was taken in 2003 to acquire its own independent & operational source of water including water treatment plant.
- Hethware, Barve & Morbe dam are in vicinity of NMMC so, NMMC decided to use Morbe dam for water supply.
  - Constructed ground level and elevated service reservoirs are at work.
  - Replacement of old lines with ductile lines. ~~was done in 2002-03~~