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### Ques-5) Objectives of grit removal-

- \* Grit removal basins are the sedimentation basins placed in front of the fine screen to remove the inorganic particles having specific gravity of 2.65 such as sand, gravel, grit, egg shells, glass pieces, metal fragments etc. and other non-putrescible materials that may clog channels or damage pumps due to abrasion and to prevent their accumulation in sludge digester.

Grit chamber is the second unit operation used in primary treatment of wastewater and it is intended to remove suspended inorganic particles such as sandy and gritty matter from the wastewater.

- \* limited to municipal wastewater.

Grit chambers are provided to protect moving mechanical equipment from abrasion and normal wear, avoid deposition in pipelines, channel and conduits and to reduce frequency of digester cleaning.

- \* The grit chamber is used to remove grit consisting of sand, gravel, cinder or other heavy solid materials (inorganic that have specific gravity much higher than those of the organic solids in wastewater) by the process of sedimentation due to gravitational forces and to pass forward the lighter organic material.

### Ques 5 (2) (1) COD - Chemical oxygen demand

In environmental chemistry the chemical oxygen demand is an indicative measure of the amount of oxygen that can be consumed by reaction in a measured solution. It is commonly expressed in mass of oxygen consumed.