

## ASSIGNMENT-2

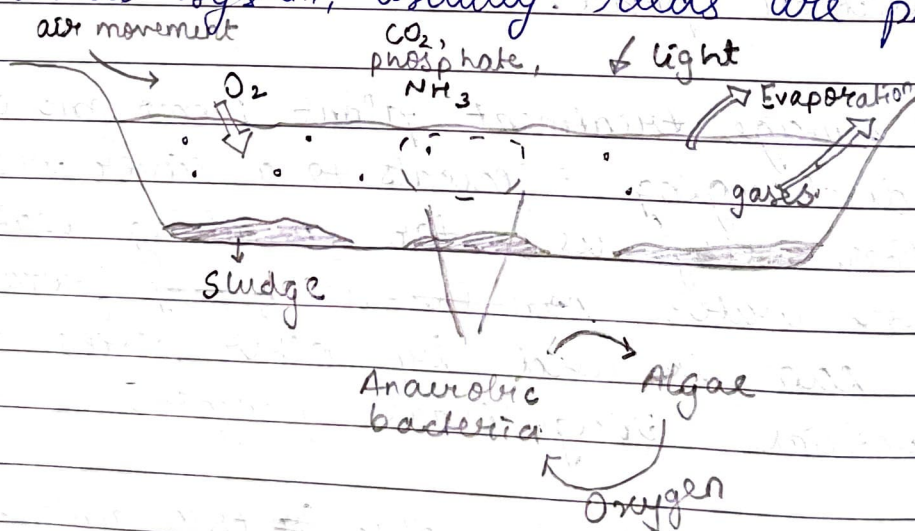
A.6. Indian air & water quality standards, measurement methods can be obtained from [www.cpcb.in](http://www.cpcb.in)

A.2. Secondary Treatment ~~approach~~ has 3 different approaches -

1. Fixed film system
2. Suspended film system
3. Lagoon System

→ Lagoon System:

- 1) Waste water is held for several months
- 2) This induces natural degradation of sewage
- 3) For this system, usually reeds are preferred



A.5. Laboratory methods of organic matter measurement of waste water -

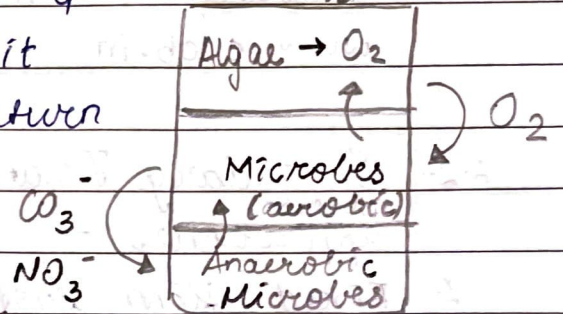
1. Organics (BOD, COD, TOC, O & G)
2. BOD (Biochemical oxygen demand)
3. COD (chemical oxygen demand)



- TOC (Total organic carbon)
- O & G (Oil & grease)

A.4 (1) Firstly, Algae uses sunlight & produces oxygen gas & gives it to aerobic microbes & in return aerobic microbes provides nutrients like  $\text{CO}_3^-$  to Algae.

(2) Between aerobic & anaerobic microbes where aerobic microbes provides nutrients like  $\text{CO}_3^-$ ,  $\text{NO}_3^-$  to anaerobic ones & in return they get  $\text{CH}_4$  (methane) which they use for their growth.



This is how symbiotic relation exists in oxidation pond.

- A.1 1) A sewage treatment plant from one city may be discharging effluents to a river which is another city uses for drinking water supply.
- 2) Waste water ~~can be used by~~ from one city can be used by other cities for industrial, irrigational purposes.

A.3 1) A wetland is a water ~~to~~ treatment system where aquatic plants are used/planted to treat water using natural processes.

2) It is a simple technology that can be used in water treatment.