$y_t = L[1-(10)^{-kDt}]$

Assume $= K_D(20°) = 0.1$

$100 = L[1-(10)^{-0.1\times5}]$

$100 = L[1-(10)^{-0.5}]$

$L = 146.2$ mg/l

2. We know that

$K_D(37°) = 0.1[1.047]^{37.20} =$

$0.1[1.047]^{17}$

$= 0.1 \times 2.2 = 0.22$

3. We know that

$y_t = L[1-(10)^{-KDt}]$

$y_1[37°C] = 146.2[1-(10)^{-K_D(37°C)\times1}]$

$\because [t = 1 \text{ day}]$

$= 146.2[1-(10)^{-22\times1}] = 58.1$ mg/l Ans

Ans 4(i) Sterilization refers to any procen that removes kill or deactivates all forms of life (in particular referring to microgonisms such as fungi bacteria viruses spores, unicellular eukaryotic organisms such as plasmodium etc.

After sterillization an object is refered to as being sterile or asaptic.

Significance of GLSS in UASB — The function of the GLSS is to provide enough gas-water Interfaces inside the gas dome Sufficat Setting area outside the dome to control Surface Over flow rate.

Oxidation Ditch - Oxidation ditch is work in aerobic Condition.

② The Size of oxidation ditch is small.

Oxidation Pond — Oxidation Pond is use in aerobic and anaerobic condition

② The size of oxidation pond is large.

Ans 4(2) Unit operations — The means of treatment in which the application of physical forces predominates are known as Unit of oration. It includes.

① Screening
② Mixing
③ Flocculation
④ Sedimentation etc

Unit Process — The types of treatment in which the removal of contaminants is brough about by the addition of microbial activities are known as Unit process.

Ans 3(2) Indicator organism — An indicator organism is that organism whose presence / defec in water, leads is to presume that water has been contaminated. It also helps us to reflect the type & degree of contamination.

Characteristics of ideal pathoge indicator.

1) An ideal pathogen Indicator should be therefore always be present whenever pathogens are present in water & vice versa

It should in itself be not a pathogen, so as not to cause hazards to laboratory technicians.

It should be easily detectable on easy testing, without being interfered with by other organism