Name - Anjali Rana

Roll no. - 10201705

Subgroup - COPC5

Q.1 - - - - - ?

Solve : $CH_3COC_2H_5 + \frac{11}{2}O_2 \rightarrow 4CO_2 + 4H_2O$

molecular weight $= 72g$; conc. of $CH_3COC_2H_5 = 300 mg/l$

(i) $72g$ of C_4H_8O requires $O_2 = \frac{11}{2} \times 32g$ of O_2

$300 mg/L$ of C_4H_8O requires Oxygen $= \dfrac{\frac{11}{2} \times 32 \times 300}{72} \dfrac{mg}{l}$

$$\boxed{ThCOD = 733.3 \, mg/L}$$

(ii) $COD = 80\%$ of $ThCOD$

$= \dfrac{80}{100} \times 733.33$

$$\boxed{COD = 586.67 \, mg/L}$$

(iii) $\dfrac{COD}{BOD_5} = 2$

$BOD_5 = \dfrac{COD}{2}$

$$\boxed{BOD_5 = 293.33 \, mg/L}$$

Anjali Rana