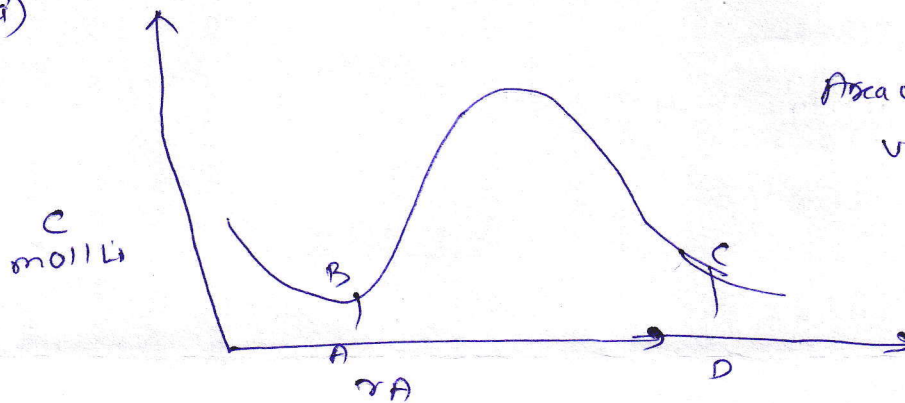


Q1) a)



Area under curve

Vol.

(4) (5)

b)

$$pH = -\log_{10} H^+$$

(2)

$$K_a = \alpha^2 C$$

$$\alpha = \sqrt{K_a / C}$$

(2)

Q2) a)

Vol. in series - 3m
 in parallel - 3m

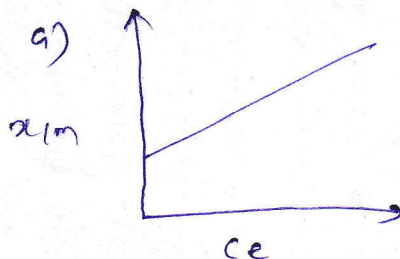
b)

Balance for mass - ~~2m~~ 1m

for Q - 1m

COD - 1m, TAC - 1m

Q3) a)

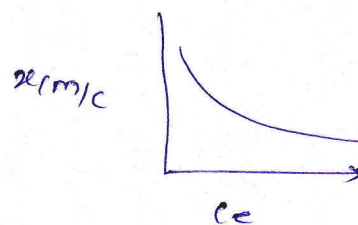


C_e

Graph
 Langmuir

(3) 3m

Design (3) m



C_e

(3) m

b)

Fig - 2m

I - 2m

Q4) a) Cation exchanger - 2m
Anion exchanger - 2m

EC - 1m, Scale 1m

b) Redox Reaction - 4m

Rm
(Rajesh)

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