

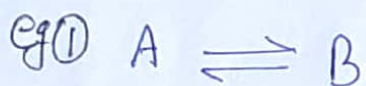
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degree of dissociation :- $[\alpha]$

$$\alpha = \frac{x}{a}$$

α = no. of moles dissociated
 a = initial moles

$$\alpha \% = \frac{x}{a} \times 100$$



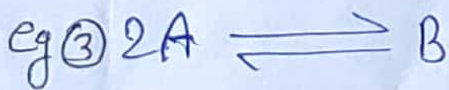
to a 0

teq $a-x$ x



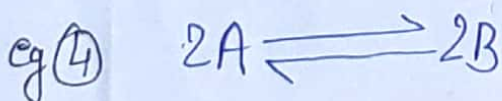
to a 0

teq $a-x$ $2x$



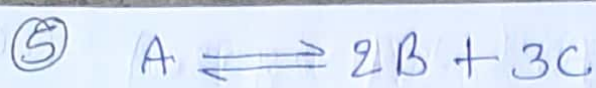
to a 0

teq $a-x$ $\frac{x}{2}$



to a 0

teq $a-x$ x



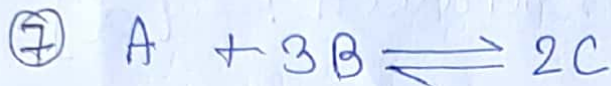
to a 0 0

teq $a-x$ $2x$ $3x$



to a 0 0

teq $a-x$ $\frac{3x}{2}$ $\frac{x}{2}$



to a b 0

wr. to A $a-x$ $b-3x$ $2x$

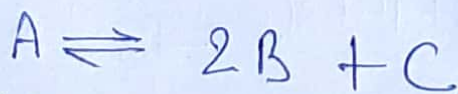
wr. to B $a-\frac{y}{3}$ $b-y$ $\frac{2}{3}y$



10 moles of A is given initially If 6 moles of A is dissociated at eqm then find -

① DOD

② total moles at eqm



10

$10-6$ 2×6 6

$= 4$ $= 12$ $= 6$

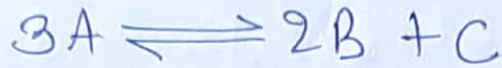
① $DOD = \frac{x}{a} = \frac{6}{10} = \frac{3}{5}$

② $4 + 12 + 6 = 22$ moles



10 moles of A is given initially if 4 moles of B is formed at eqm. then find

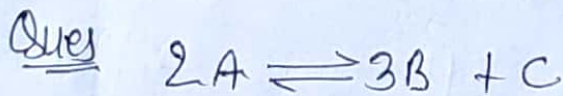
- ① DOD ② Total moles at eqm



10	0	$\frac{1}{3}x$
$a-x$	$\frac{2x}{3}$	
$10-6$	$= \frac{2}{3} \times 6$	$= \frac{1}{3} \times 6 = 2$
$= 4$	$= 4$	
	$\frac{2}{3}x = 4$	
	$x = \frac{12}{2} = 6$	

① DOD = $\frac{x}{a} = \frac{6}{10} = \frac{3}{5}$

② $4 + 4 + 2 = 10$



If 20 moles of A is given initially & DOD is 0.4 then find

- ① Total moles at eqm ② no. of moles of B & C formed is 0.4 then

$2A \rightleftharpoons 3B + C$	① $12 + 12 + 4 = 28$
20	② B $\rightarrow 12$
$a-x$	C $\rightarrow 4$
$20-8=12$	
$0.4 = \frac{x}{20}$	
$8 = 20 \times 0.4 = x$	