

NEET EQUILIBRIUM — NUMERICAL ON EQUILIBRIUM CONCENTRATIONS — PYQS

Max. Marks: 16
Questions: 4

Section A (MCQ) — 4 questions

Q.1 $3\text{O}_2(\text{g}) \rightleftharpoons 2\text{O}_3(\text{g})$

for the above reaction at 298 K, K_c is found to be 3.0×10^{-59} . If the concentration of O_2 at equilibrium is 0.040 M then concentration of O_3 in M is

[NEET (UG) 2022]

- (1) 4.38×10^{-32} (2) 1.9×10^{-63}
 (3) 2.4×10^{31} (4) 1.2×10^{21}

Scan or tap for the
full solution



Q.2 A 20 litre container at 400 K contains $\text{CO}_2(\text{g})$ at pressure 0.4 atm and an excess of SrO (neglect the volume of solid SrO). The volume of the container is now decreased by moving the movable piston fitted in the container. The maximum volume of the container, when pressure of CO_2 attains its maximum value, will be

(Given that : $\text{SrCO}_3(\text{s}) \rightleftharpoons \text{SrO}(\text{s}) + \text{CO}_2(\text{g})$, $K_p = 1.6 \text{ atm}$)

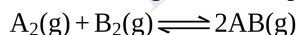
[NEET 2017]

- (1) 10 litre (2) 4 litre (3) 2 litre (4) 5 litre

Scan or tap for the
full solution



Q.3 Given the reaction between 2 gases represented by A_2 and B_2 to give the compound $\text{AB}(\text{g})$,



At equilibrium, the concentration of

$\text{A}_2 = 3.0 \times 10^{-3} \text{ M}$, of $\text{B}_2 = 4.2 \times 10^{-3} \text{ M}$, of

$\text{AB} = 2.8 \times 10^{-3} \text{ M}$

If the reaction takes place in a sealed vessel at 527°C , then the value of K_c will be

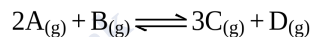
[AIPMT 2012 (Mains)]

- (1) 2.0 (2) 1.9 (3) 0.62 (4) 4.5

Scan or tap for the
full solution



Q.4 The reaction,



is begun with the concentrations of A and B both at an initial value of 1.00 M. When equilibrium is reached, the concentration of D is measured and found to be 0.25 M. The value for the equilibrium constant for this reaction is given by the expression

[AIPMT 2010 (Mains)]

- (1) $[(0.75)^3(0.25)] \div [(1.00)^2(1.00)]$
 (2) $[(0.75)^3(0.25)] \div [(0.50)^2(0.75)]$
 (3) $[(0.75)^3(0.25)] \div [(0.50)^2(0.25)]$
 (4) $[(0.75)^3(0.25)] \div [(0.75)^2(0.25)]$

Scan or tap for the
full solution



ANSWER KEY

Ques.	1	2	3	4								
Ans.	1	4	3	2								