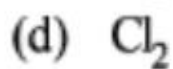
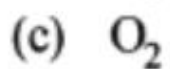
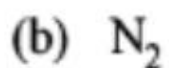
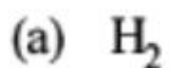


## JEE PREVIOUS YEARS QUESTION-7

Longest mean free path stands for :

(1995S)



Answer:

(a) The mean free path,  $\lambda = \frac{1}{\sqrt{2} \pi a^2 N}$

or  $\lambda \propto \frac{1}{a^2}$ , where  $a$  = molecular diameter

$\therefore$  Smaller the molecular diameter, longer the mean free path. Hence  $\text{H}_2$  is the answer.