

Date

OPEN BOOK TEST:-

Ques → Ten distinguishable particles are distributed in four compartments of equal sizes. Calculate the thermodynamic probability of state (7, 2, 1, 0).

Ans → Explain a priori and statistical probability and also show a relation between them.

Ques → If temperature of a gas is raised from 300K to 1200K, find the ratio of rms speeds at these 2 temperatures.

Ques → Find the number of possible arrangements when the particles are to be distributed in 2 cells according to:

- (1) MB statistics
- (2) BE statistics
- (3) FD statistics

Ques → What percentage of total number of molecules will have their speeds between v and v_{rms} for gas molecules at N.T.P.?