Home Assignment

B.Sc (H) IV Sem GE

Thermal Physics & Statistical Mechanics)

PAPER CODE :- 32225415

Q:1 (a) Explain the spectral distribution of Black Body radiation.

(b) Derive the planks law of spectral distribution and then obtain/Deduction of the following laws:

(i) Wien's law

(ii) Rayleigh - Jeans law

(iii) Stefan Boltzmann law & Wien's displacement law.

Q:2 (a) Writedown the short note on:-

(i) Macrostate and Microstate

(ii) Phase space

(b) Derive the relation between entropy and thermodynamic probability.

i.e. $S = k \ln W$ where S → Thermodymic Entropy

k → Boltzmann costant

W → Thermodymic probability

Q:3 (a) Explain the maxwell Boltzmann law

(b) What are the basic difference between M-B, F-D and B-E statics.

M-B → Maxwells Boltzmann statics

F-D → Fermi-dirac statics

B-E → Bose-Einfein statics.

Scanned with CamScanner