**Lesson Plan & Execution**

Faculty:-Dr. Surender Semester- IV Class: B.Sc. 2nd

Course Code: - PHY-401 Course Title:-Statistical Mechanics Session: 2023-2024

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| **S. No.** | **Day** | **Unit** | **Topic** | **Status** | **Sign** |
| 12345678910111213141516171819202122232425262728293031323334353637383940414243 | 12345678 9101112131415161718192021222324252627 28 293031323334353637383940414243 | IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII | Probability Some probability considerationscombinations possessing maximum probabilityDistribution of molecules in two boxesTossing of four coins ( like and unlike)Case with weight age (general)Phase spaceMicrostates and Macro statesStatistical fluctuationsconstraints and accessible States**Test And Assignment**Thermo dynamical probabilityShort questions and numerical.Postulates of Statistical Physics Boltzmann’s distribution lawEvaluation of A and bBose-Einstein statisticsApplication of B.E. Statistics to Plancks’s radiation lawB.E. gas Take the problems and numericalFermi-Dirac statisticsRange and straggling of alpha particles. Geiger-Nuttal law Origin of continuous beta-spectrum (neutrino hypothesis)Types of beta decay and energetic of beta decay Energy loss of beta- particles (ionization)Range of electrons Absorption of beta-particles Test And AssignmentFermi-Dirac statisticsM.B. Law as limiting case of B.E CondensationM.B. Law as limiting case of B.E CondensationF.D. GasElectron gas in metalsZero point energySpecific heat of metals and its solutionShort questions and numericalRevision of Ist UnitRevision of Ist UnitRevision of Ist UnitRevision of 2ndUnitRevision of 2ndUnitRevision of 3rdUnitRevision of 3rdUnit. | CompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompleted CompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompletedCompleted |  |