**PG.GOVT COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH**

**Teaching Plan Session Odd Semester**

**(2018-19)**

**Class: B.Sc 1st Sem, B.Sc 3rd Sem Name of the Teacher: Dr. Harjeet kaur**

**Subject: Physics Period : Third, First**

**Paper : B, C Room No : 315, 126**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No** | **Date From** | | **Date Upto** | **Topics to be covered** |
| Week 1 | **(For ongoing classes)** | | | SHM, Definitions, SHM as Projection of circular motion/ Rutherford Scattering, Constituents of nuclei, p-e theory, n-p theory |
| July 24, 2018 | | July 28, 2018 |
| Week 2 | July 30, 2018 | August 4, 2018 | | Characteristics of SHM, Graphical Rep., Differential equation of SHM /Nuclear size, shapes, mass, density, charge, wave mec property |
| Week 3 | August 6, 2018 | August 11, 2018 | | Energy of SHM, Diff equation of angular SHM, Compound Pendulum /Angular momentum, magnetic moment, electric quad. moment |
| Week 4 | August 13, 2018 | August 18, 2018 | | Diff Eq of Torsional Pend, Transverse vib on String, Elec Osc., Energy Of Elec Osc./ Nuclear forces, mass defect, packing fraction |
| Week 5 | August 20, 2018 | August 25, 2018 | | Compostion of Two perp SHM, In ration 1:1 and 1:2/ Binding Energy, Analogies with drop of liquid, Nuclear fission, Liquid drop Model |
| Week 6 | August 27, 2018 | September 1, 2018 | | Damped Mec. Osc and its eq, Log Dec, Relax time, Q factor / LDM ctd., failures and its success, Shell Model, Success and its failures |
| Week 7 | September 3, 2018 | September 8, 2018 | | Elec damped osc, Dead Beat galv./ Natural radioactivity, Properties of alpha beta gamma, Difference between gamma and x rays, Fundamental laws, Law of decay, Decay constant, half life |
| Week 8 | September 10, 2018 | September 15, 2018 | | Forced osc and its eq, Bahaviour of disp with freq / Average life, Activity, Series, Laws of Successive disintegeration |
| Week 9 | September 17, 2018 | September 22, 2018 | | Vel and accel with frequency / Velocity, Range of alpha particles, Geiger Nuttal Law, Tunnel Effect, Gammows Theory, Beta Decay |
| Week 10 | September 24, 2018 | September 29, 2018 | | Elec osc and its behaviour / Neutrino Postulate, Energy conservation, Internal Conservation |
| Week 11 | October 1, 2018 | October 8, 2018 | | Power and Band Width / Types of Nuclear rxns, Kinematics of nuclear rxns |
| **MID SEMESTER EXAMINATION (October 11, 2018 to October 17, 2018)** | | | | |
| Week 12 | October 20, 2018 | October 27, 2018 | | Q factor and band width and amplification factor / Nuclear crosssection, Compound nucleus, Artificial radioactivity, Radio isotopes |
| Week 13 | October 29, 2018 | November 3, 2018 | | Coupled Osc, Normal coord, inphase out phase / Carbon dating, Energy classification of neutrons |
| Week 14 | November 5, 2018 | November 10, 2018 | | Soln of Diff eq, Equation of normal modes / Rutherford scatt, Coulomb scatt. |
| Week 15 | November 12, 2018 | November 17, 2018 | | Degrees of freedom, Significance of normal modes / Nuclear Reactors |
| Week 16 | November 19, 2018 | November 22, 2018 | | Inductive Coupling of Elec osc / Nuclear Fusion |
| Week 17 | November 26, 2018 | December 1, 2018 | | Revision, Numerical problems. |