Saraswati Mahila Mahavidyalaya, Palwal

 **Lesson Plan**

**Name of the Assistant/Associate Professor: Jyoti Malhotra**

**Class and Section: B.Sc. I (N.m), B.Sc II (N.m), B.Sc. III (N.m)**

**Name of subject: Properties of matter, Kinetic theory of gases, and relativity,**

 **nuclear physics**

**Subject Lesson Plan : 18 weeks(from January 2018 to April 2018)**

**(Note: Prepare as per list of holidays declared by Haryana govt.)**

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| **WEEK 1** |
| **ASSIGNMENT:** |
| **WEEK 1,DAY1 ,DATE :01/01/2018(MONDAY)** |
| **B.Sc I (Lab) : Reading, implementation & demonstration.** **To draw a graph & find out modulus of rigidity by Maxwell needle.** |
| **WEEK 1 ,DAY 2 ,DATE :02/01/2018(TUESDAY)** |
| **B.Sc I (Lab) : Implementation** **To find out modulus of rigidity by Maxwell needel.**  |
| **WEEK 1,DAY 3 ,DATE :03/01/2018(WEDNESDAY)** |
| **B.Sc I (Lab) : Reading, implementation & Demonstration.** **To find out modulus of rigidity by Maxwell needel.** **B.Sc II (Lab) : Reading & Demonstration.** **To find out wavelength by Newton’s rings.**  |
| **WEEK 1 ,DAY 4 ,DATE :04/01/2018(THURSDAY)** |
| **B.Sc I (Theory) : Elasticity, Hooke’s Law**  **B.Sc III (Theory) : Nuclear Mass & Binding Energy**  |
| **WEEK 1,DAY 5 ,DATE :05/01/2018(FRIDAY)** |
|  **Holiday on account of Guru Govind Singh’s Birthday** |
| **WEEK 1 ,DAY 6 ,DATE :06/01/2018(SATURDAY)** |
| **Revision** |
| **WEEK 2** |
| **ASSIGNMENT:** |
| **WEEK 2,DAY1 ,DATE :08/01/2018(MONDAY)** |
| **B.Sc. I (Lab) : Calculation, discussion, viva & file checking**  **(1st group)**  |
| **WEEK 2 ,DAY 2 ,DATE :09/01/2018(TUESDAY)** |
| **B.Sc. I (Lab) : Implementation & Reading : elastic constants by searle’s method**  **(1st group)**  |
| **WEEK 2,DAY 3 ,DATE :10/01/2018(WEDNESDAY)** |
| **B.Sc. I (Lab) : Calculation, discussion, viva & file checking**  **(2nd group)** **B.Sc. I (Lab) : Reading, demonstration of find out wavelength of Na light by diffraction grating .**  |
| **WEEK 2 ,DAY 4 ,DATE :11/01/2018(THURSDAY)** |
| **B.Sc. I (Theory) : Elastic constant & their relation.****B.Sc. III (Theory) : Systematic Nuclear binding energy, Nuclear stability** |
| **WEEK 2,DAY 5 ,DATE :12/01/2018(FRIDAY)** |
| **B.Sc. I (Theory) : Poission ratio & torsion of cylinder****B.Sc. III (Theory) : nuclear size, spin & pairing, statistical magnetic dipole moment.** |
| **WEEK 2 ,DAY 6 ,DATE :13/01/2018(SATURDAY)** |
| **B.Sc. I (Theory) : Twistingcouple, bending of beam****B.Sc. III (Theory) : Quadruple moment.**  |
| **WEEK 3** |
| **ASSIGNMENT:** |
| **WEEK 3,DAY1 ,DATE :15/01/2018(MONDAY)** |
| **B.Sc. I (Lab) : Calculation & discussion of elastic constant by searle’s method.**  |
| **WEEK 3 ,DAY 2 ,DATE :16/01/2018(TUESDAY)** |
| **B.Sc. I (Lab) : Viva and file checking of elastic constant by searle’s method.** **(1st group)**  |
| **WEEK 3,DAY 3 ,DATE :17/01/2018(WEDNESDAY)** |
| **B.Sc. I (Lab) : Calculation an discussion of elastic constant by Searle’s method.**  **(2nd group)** **B.Sc. II (Lab) : Calculation and discussion to find out wavelength of sodium light by diffraction grating.** |
| **WEEK 3 ,DAY 4 ,DATE :18/01/2018(THURSDAY)** |
| **B.Sc. I (Theory) : Bending of beam** **B.Sc. III (Theory) : Determination of mass by bain bridge** |
| **WEEK 3,DAY 5 ,DATE :19/01/2018(FRIDAY)** |
| **B.Sc. I (Theory): centrally loaded beam****B.Sc. III (Theory): Bain bridge and mass septrograph** |
| **WEEK 3 ,DAY 6 ,DATE :20/01/2018(SATURDAY)****B.Sc. I (Theory) : Revision and assignment are given.****B.Sc. III (Theory): Determination of charge by moisely law.** |
| **WEEK 4** |
| **ASSIGNMENT:** |
| **WEEK 3,DAY1 ,DATE :22/01/2018(MONDAY)** |
|  **Holiday on account of Basant Panchmi.** |
| **WEEK 4 ,DAY 2 ,DATE :23/01/2018(TUESDAY)** |
| **B.Sc. I (Lab) : File checking** |
| **WEEK 4,DAY 3 ,DATE :24/01/2018(WEDNESDAY)** |
|  **Holiday on account of Sir Chotu Ram Jayanti.** |
| **WEEK 4 ,DAY 4 ,DATE :25/01/2018(THURSDAY)** |
| **B.Sc. I (Theory) : Assumption of Kinetic theory of gases.****B.Sc. III(Theory) : Revision and assignment given.** |
| **WEEK 4,DAY 5 ,DATE :26/01/2018(FRIDAY)** |
|  **Holiday on account of Republic Day.** |
| **WEEK 4 ,DAY 6 ,DATE :27/01/2018(SATURDAY)** |
| **B.Sc. I (Theory) : Law of equi partition of energy****B.Sc. III(Theory) : Revision of unit – I.** |
| **WEEK 5** |
| **ASSIGNMENT:** |
| **WEEK 5,DAY1 ,DATE :29/01/2018(MONDAY)** |
| **B.Sc. I (Lab) : Reading and demonstration of g by bar pendulum.** |
| **WEEK 5 ,DAY 2 ,DATE :30/01/2018(TUESDAY)** |
| **B.Sc. I (Lab) : Calculation and discussion of g by bar pendulum.** |
| **WEEK 5,DAY 3 ,DATE :31/01/2018(WEDNESDAY)** |
|  **Holiday on account of Guru Ravi Dass Jayanti** |
| **WEEK 5 ,DAY 4 ,DATE :01/02/2018(THURSDAY)** |
| **B.Sc. I (Theory) : Application of specific heat of gases.****B.Sc. III (Theory) : interaction of heavy charge particle.** |
| **WEEK 5,DAY 5 ,DATE :02/02/2018(FRIDAY)** |
| **B.Sc. I (Theory) : Maxwell distribution of speed and velocity.****B.Sc. III (Theory) : alpha disintegration and its theory.** |
| **WEEK 5 ,DAY 6 ,DATE :03/02/2018(SATURDAY)****B.Sc. I (Theory) : experimental verification of Maxwell law of speed distribution.****B.Sc. III (Theory) : energetic of alpha decay, range** |
| **WEEK 6** |
| **ASSIGNMENT:** |
| **WEEK 6,DAY1 ,DATE :05/02/2018(MONDAY)** |
| **B.Sc. I (Lab) : Viva and file checking of g by Bar pendulum.** |
| **WEEK 6 ,DAY 2 ,DATE :06/02/2018(TUESDAY)** |
| **B.Sc. I (Theory) : File checking** |
| **WEEK 6,DAY 3 ,DATE :07/02/2018(WEDNESDAY)** |
| **B.Sc. I (Lab) : File checking****B.Sc. II (Lab) : Viva and file checking.** |
| **WEEK 6 ,DAY 4 ,DATE :08/02/2018(THURSDAY)** |
| **B.Sc. I (Theory) : Most probable speed.****B.Sc. III (Theory) : Staggling of alpha particle and Geiger Nuttle law.** |
| **WEEK 6,DAY 5 ,DATE :09/02/2018(FRIDAY)** |
| **B.Sc. I (Theory) : Average and RMS speed.****B.Sc. III (Theory) : Introduction of light charge particle.** |
| **WEEK 6 ,DAY 6 ,DATE :10/02/2018(SATURDAY)** |
|  **Holiday on account of Maharshi Dayanand Saraswati Jayanti.** |
| **WEEK 7** |
| **ASSIGNMENT:** |
| **WEEK 7,DAY1 ,DATE :12/02/2018(MONDAY)** |
| **B.Sc. I (Lab) : File checking.** |
| **WEEK 7 ,DAY 2 ,DATE :13/02/2018(TUESDAY)** |
| **Holiday on account of Maha Shivaratri.** |
| **WEEK 7,DAY 3 ,DATE :14/02/2018(WEDNESDAY)** |
| **B.Sc. I (Lab) : Reading and demonstration of inverse square law.****B.Sc. II (LAb) : file checking.** |
| **WEEK 7 ,DAY 4 ,DATE :15/02/2018(THURSDAY)** |
| **B.Sc. I (Theory) : Mean free path.****B.Sc. III (Theory) : Energy losses of beta particle.** |
| **WEEK 7,DAY 5 ,DATE :16/02/2018(FRIDAY)** |
| **B.Sc. I (Theory) : Transport of Energy.****B.Sc. III (Theory) : Introduction of Gamma Ray, Nature of Gamma ray.** |
| **WEEK 7 ,DAY 6 ,DATE :17/01/2018(SATURDAY)** |
| **B.Sc. I (Theory) : Transport of momentum.****B.Sc. III (Theory) : energetic of Gamma ray.** |
| **WEEK 8** |
| **ASSIGNMENT:** |
| **WEEK 8,DAY1 ,DATE :19/02/2018(MONDAY)** |
| **B.Sc. I (Lab) : Reading and demonstrate frequency of sonometer.** |
| **WEEK 8 ,DAY 2 ,DATE :20/02/2018(TUESDAY)** |
| **B.Sc. I (Lab) : Implementation of frequency of sonometer.**  |
| **WEEK 8,DAY 3 ,DATE :21/02/2018(WEDNESDAY)** |
| **B.Sc. I (Lab) : Viva and file checking.****B.Sc. II (Lab) : Implementation of diameter of lycopodioum powder.** |
| **WEEK 8 ,DAY 4 ,DATE :22/02/2018(THURSDAY)** |
| **B.Sc. I (Theory) : Revision** **B.Sc. III (Theory) : Passage of Gamma radiation throw matter.** |
| **WEEK 8,DAY 5 ,DATE :23/02/2018(FRIDAY)** |
| **B.Sc. I (Theory) : Diffusion of gases.****B.Sc. III (Theory) : Electron positron annihilation.** |
| **WEEK 8 ,DAY 6 ,DATE :24/02/2018(SATURDAY)** |
| **B.Sc. I (Theory) : Revision****B.Sc. III (Theory) : Absorptionof Gamma Ray.** |
| **WEEK 9** |
| **ASSIGNMENT:** |
| **WEEK 9,DAY1 ,DATE :26/02/2018(MONDAY)** |
| **B.Sc. I (Lab) : calculation and discussion of frequency by sonometer.** |
| **WEEK 9 ,DAY 2 ,DATE :27/02/2018(TUESDAY)** |
| **B.Sc. I (Lab) : File checking** |
| **WEEK 9,DAY 3 ,DATE :28/02/2018(WEDNESDAY)** |
|  **VACATION -II** |
| **WEEK 9 ,DAY 4 ,DATE :01/03/2018(THURSDAY)** |
|  **VACATION -II** |
| **WEEK 9,DAY 5 ,DATE :02/03/2018(FRIDAY)** |
|  **VACATION -II** |
| **WEEK 9 ,DAY 6 ,DATE :03/03/2018(SATURDAY)** |
|  **VACATION -II** |
| **WEEK 10** |
| **ASSIGNMENT:** |
| **WEEK 10,DAY1 ,DATE :05/03/2018(MONDAY)** |
| **B.Sc. I (Lab) : File checking.** |
| **WEEK 10,DAY 2 ,DATE :06/03/2018(TUESDAY)** |
| **B.Sc. I (Lab) : Reading and implementation of thermal conductivity by Searle’s method.** |
| **WEEK 10,DAY 3 ,DATE :07/03/2018(WEDNESDAY)** |
| **B.Sc. I (Lab) : Calculation and discussion****B.Sc. II (Lab) : Reading and implementation of diameter of lycopodium powder.** |
| **WEEK 10,DAY 4 ,DATE :08/03/2018(THURSDAY)** |
| **B.Sc. I (Theory) : Diffusion of gases and Brownian motion****B.Sc. III (Theory) : Assignment.** |
| **WEEK 10,DAY 5 ,DATE :09/03/2018(FRIDAY)** |
| **B.Sc. I (Theory) : Revision** **B.Sc. III (Theory) : Assignment** |
| **WEEK 10 ,DAY 6 ,DATE :10/03/2018(SATURDAY)** |
| **B.Sc. I (Theory) : Real gases.****B.Sc. III (Theory) : Revision** |
| **WEEK 11** |
| **ASSIGNMENT:** |
| **WEEK 11,DAY1 ,DATE :12/03/2018(MONDAY)** |
| **B.Sc. I (Lab) : Viva of thermal conductivity by Searle’s method.**  |
| **WEEK 11,DAY 2 ,DATE :13/03/2018(TUESDAY)** |
| **B.Sc. I (Lab) : File checking.** |
| **WEEK 11,DAY 3 ,DATE :14/03/2018(WEDNESDAY)** |
| **B.Sc. I (Lab) : Calculation and discussion****B.Sc. II (Lab) : Implementation** |
| **WEEK 11,DAY 4 ,DATE :15/03/2018(THURSDAY)** |
| **B.Sc. I (Theory) : Vanderwall Equation****B.Sc. III (Theory) : Necular Reaction** |
| **WEEK 11,DAY 5 ,DATE :16/03/2018(FRIDAY)** |
| **B.Sc. I (Theory) : Assignment****B.Sc. III (Theory) : Nuclear disintegration** |
| **WEEK 11 ,DAY 6 ,DATE :17/03/2018(SATURDAY)** |
| **B.Sc. I (Theory) : Test****B.Sc. I (Theory) : Radio active capture.** |
| **WEEK 12** |
| **ASSIGNMENT:** |
| **WEEK 12,DAY1 ,DATE :19/03/2018(MONDAY)** |
| **B.Sc. I (Lab) : File checking** |
| **WEEK 12,DAY 2 ,DATE :20/03/2018(TUESDAY)** |
| **B.Sc. I (Lab) : File checking.** |
| **WEEK 12,DAY 3 ,DATE :21/03/2018(WEDNESDAY)** |
| **B.Sc. I (Lab) : Reading and implementation of impendence of AC circuit and its**  **verification.****B.Sc. II (Lab) : Viva** |
| **WEEK 12,DAY 4 ,DATE :22/03/2018(THURSDAY)** |
| **B.Sc. I (Theory) : Test** **B.Sc. III (Theory) : Heavy ion reaction and conservation law.** |
| **WEEK 12,DAY 5 ,DATE :23/03/2018(FRIDAY)** |
|  **Holiday on account of Shahidi diwas.** |
| **WEEK 12 ,DAY 6 ,DATE :24/03/2018(SATURDAY)** |
| **B.Sc. I (Theory) : Discussion about Unit- II****B.Sc. III (Theory) : Revision** |
| **WEEK 13** |
| **ASSIGNMENT:** |
| **WEEK 13,DAY1 ,DATE :26/03/2018(MONDAY)** |
| **B.Sc. I (Lab) : Reading and implementation**  |
| **WEEK 13,DAY 2 ,DATE :27/03/2018(TUESDAY)** |
| **B.Sc. I (Lab) : Calculation and discussion** |
| **WEEK 13,DAY 3 ,DATE :28/03/2018(WEDNESDAY)** |
| **B.Sc. I (Lab) : File checking****B.Sc. I (Lab) : File checking** |
| **WEEK 13,DAY 4 ,DATE :29/03/2018(THURSDAY)** |
|  **Holiday on account of Mahavir jayanti.** |
| **WEEK 13,DAY 5 ,DATE :30/03/2018(FRIDAY)** |
| **B.Sc. I (Theory) : Reference system and inertial frame** **B.Sc. III (Theory) : Q value an threshold reaction** |
| **WEEK 13 ,DAY 6 ,DATE :31/03/2018(SATURDAY)** |
| **B.Sc. I (Theory) : Gallian invariance** **B.Sc. III (Theory) : Nuclear Reactior.** |
| **WEEK 14** |
| **ASSIGNMENT:** |
| **WEEK 14,DAY1 ,DATE :02/04/2018(MONDAY)** |
| **B.Sc. I (Lab) : File checking** |
| **WEEK 14,DAY 2 ,DATE :03/04/2018(TUESDAY)** |
| **B.Sc. I (Lab) : Viva of determination of impedence of AC circuit** |
| **WEEK 14,DAY 3 ,DATE :04/04/2018(WEDNESDAY)** |
| **B.Sc. I (Lab) : File Checking****B.Sc. II (Lab) : To find the roots of quadratic equation.**  |
| **WEEK 14,DAY 4 ,DATE :05/04/2018(THURSDAY)** |
| **B.Sc. I (Theory) : Lorentz transformation****B.Sc. III (Theory) : Scientillation counter.** |
| **WEEK 14,DAY 5 ,DATE :06/04/2018(FRIDAY)** |
| **B.Sc. I (Theory) : Length contraction****B.Sc. III (Theory) : Semiconductor detuctor** |
| **WEEK 14 ,DAY 6 ,DATE :07/04/2018(SATURDAY)** |
| **B.Sc. I (Theory) : Search for ether****B.Sc. III (Theory) : Ionization chamber** |
| **WEEK 15** |
| **ASSIGNMENT:** |
| **WEEK 15,DAY1 ,DATE :09/04/2018(MONDAY)** |
| **B.Sc. I (Lab) : Viva** |
| **WEEK 15,DAY 2 ,DATE :10/04/2018(TUESDAY)** |
| **B.Sc. I (Lab) : File Checking** |
| **WEEK 15,DAY 3 ,DATE :11/04/2018(WEDNESDAY)** |
| **B.Sc. I (Lab) : File checking****B.Sc. II (Lab) : Revision** |
| **WEEK 15,DAY 4 ,DATE :12/04/2018(THURSDAY)** |
| **B.Sc. I (Theory) : Newtonian relativity principle.****B.Sc. III (Theory) : Linear accelerator and tendom accelerator** |
| **WEEK 15,DAY 5 ,DATE :13/04/2018(FRIDAY)** |
| **B.Sc. I (Theory) : Revision** **B.Sc. III (Theory) : Revision** |
| **WEEK 15 ,DAY 6 ,DATE :14/04/2018(SATURDAY)** |
| **Holiday on account of Vaisakhi & Dr B.R. Ambedkar’s Jayanti.** |
| **WEEK 16** |
| **ASSIGNMENT:** |
| **WEEK 16,DAY1 ,DATE :16/04/2018(MONDAY)** |
| **B.Sc. I (lab) : Revision** |
| **WEEK 16,DAY 2 ,DATE :17/04/2018(TUESDAY)** |
| **B.Sc. I (Lab) : Revision** |
| **WEEK 16,DAY 3 ,DATE :18/04/2018(WEDNESDAY)** |
| **Holiday on account of Maharshi Pasuram Jayanti** |
| **WEEK 16,DAY 4 ,DATE :19/04/2018(THURSDAY)** |
| **B.Sc. I (Theory) : Test****B.Sc. III (Theory) : Revision** |
| **WEEK 16,DAY 5 ,DATE :20/04/2018(FRIDAY)** |
| **B.Sc. I (Theory) : Velocity addition theorum****B.Sc. III (Theory) : Assignemnt** |
| **WEEK 16 ,DAY 6 ,DATE :21/04/2018(SATURDAY)** |
| **B.Sc. I (Theory) : Mass energy equibalance****B.Sc. III (Theory) : Test** |
| **WEEK 17** |
| **ASSIGNMENT:** |
| **WEEK 17,DAY1 ,DATE :23/04/2018(MONDAY)** |
| **B.Sc. I (Lab) : Revision** |
| **WEEK 17,DAY 2 ,DATE :24/04/2018(TUESDAY)** |
| **B.Sc. I (Lab) : Revision** |
| **WEEK 17,DAY 3 ,DATE :25/04/2018(WEDNESDAY)** |
| **B.Sc. I (Lab) : Revision****B.Sc. II (Lab) : Revision** |
| **WEEK 17,DAY 4 ,DATE :26/04/2018(THURSDAY)** |
| **B.Sc. I (Theory) : Test** **B.Sc. III (Theory) : Revision** |
| **WEEK 17,DAY 5 ,DATE :27/04/2018(FRIDAY)** |
| **B.Sc. I (Theory) : Revision****B.Sc. III (Theory) : Test** |
| **WEEK 17 ,DAY 6 ,DATE :28/04/2018(SATURDAY)** |
| **B.Sc. I (Theory) : Assignment** **B.Sc. III (Theory) : Test** |
| **WEEK 18** |
| **ASSIGNMENT:** |
| **WEEK 18,DAY1 ,DATE :30/04/2018(MONDAY)** |
| **B.Sc. I (Lab) : Revision** |