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| WEEKS | SYLLABUS |
| 10-01-2023 to 31-01-2023  01-02-2023 to 04-02-2023    06-02-2023 to 11-02-2023  13-02-2023 to 18-02-2023 | **B.Sc 1st, 3rd, 5th semester PRACTICAL EXAMINATION**  Vector atom model, quantum numbers associated with vector atom model, penetrating and non- penetrating orbits  (qualitative description )  Spectral lines in different series of alkali spectra, spin orbit interaction and doublet term separation  LS or Russel-Saunders Coupling jj coupling (expressions for interaction energies for LS and jj coupling required. **(Assignment + Unit Test)** |
| 20-02-2023 to 25-02-2023  27-02-2023 to 04-03-2023  13-03-2023 to 18-03-2023  20-03-2023 to 25-03-2023  27-03-2023 to 01-04-2023 | Zeeman effect (normal and Anomalous)  Zeeman pattern of D 1 and D2 lines of Na-atom, Paschen, Back effect of a single valence electron system.  Weak field Stark effect of Hydrogen atom. Discrete set of electronic energies of molecules.  Quantization of Vibrational and rotational energies Raman effect (Quantitative description) Stoke's and anti Stoke's lines. **(Assignment + Unit Test)** |

**LESSON PLAN- B.Sc 6th SEMESTER**

**SUBJECT**- PHYSICS **TEACHER’S NAME**- Dr. Naveen Kumari

**SESSION- 2023-23**

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| 03-04-2023 to 08-04-2023  10-04-2023 to 15-04-2023  17-04-2023 to 22-04-2023  24-04-2023 to 29-04-2023  01-05-2023 to 06-05-2023  08-05-2023 to 13-05-2023 | Main features of a laser : Directionality, high intensity, high degree of coherence  Spatial and temporal coherence, Einstein's coefficients and possibility of amplification.  Momentum transfer, life time of a level, kinetics of optical absorption. Threshold condition for laser emission  Laser pumping, He-Ne laser and RUBY laser (Principle, Construction and Working).  Applications of laser in the field of medicine and industry.  **(Assignment + Unit Test)** |
| 15-05-2023 to 16-05-2023  17-05-2023 onwards | Revision  MDU examination |