Lesson plan 2024-25
B.Sc.III(6th Sem) Physics Paper-I
Amar Singh ( Extension Lecturer)
SMSD GOVT COLLEGE NANGAL CHAUDHARY

1st week of January
unit 1st: Vector atom model Quantum numbers associated with vector atom model
2nd week of January
Penetrating and non penetrating orbits Spectral lines in different series of alkali spectra
3rd week of January
Spin orbit interaction and doublet term separation
4rth week of January
LS and JJ Coupling Schemes Numerical Problems of unit 1st
1st week of February
unit 2nd: Zeeman effect (Normal and Anormalous) Quantum theory of Anormalous Zeeman effect
2nd week of February
D1 and D2 lines of Na atom, Paschen Back effect of a single valence electron system
3rd week of February
P.B. effect of principle series doublet of Sodium, Difference between Anomalous Zeeman effect and Paschen Back effect
4rth week of February
Stark Effect, Difference between Zeeman effect and Stark Effect
1st week of March
Weak field Stark effect in Hydrogen, Molecular spectra and Rotational spectra
2nd week of March
Quantisation of vibrational and rotational energies, Raman effect , Stokes and anti stokes lines
3rd week of March
unit 3rd (Laser): Main features of laser- Directionality, High intensity, high degree of coherencies Spatial and temporal coherence
4rth week of March
Einstein's coefficients and possibility of amplification, Momentum transfer, Life time of a level Kinetic of optical absorption
1st week of April
Threshold condition for laser emission, Laser pumping
2nd week of April
He-Ne laser (principle, construction and working)
3rd week of April
Ruby laser (principle, construction and working)
4rth week of April
Applications of laser in the field of medicine and industry
Revision