



Govt. Science College, Jabalpur

B.Sc. 3rd year

Physics

**Quantum, Atomic and Molecular Physics
(Group A Paper I)**

Course Learning Outcomes (CLO)

- ❖ Know the quantum mechanics and its applications.
- ❖ Explain the atomic structures and X-rays.
- ❖ Analyze the molecular spectra such as electronic, rotational and vibrational.
- ❖ Identify the various materials using Raman spectroscopic techniques.





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Physics

**Solid State Physics and Electronics
(Group A Paper II)**

Course Learning Outcomes (CLO)

- ❖ Understand the structures of solids, space lattices and bounding of atoms in crystals.
- ❖ Develop basic understanding of physical properties of matter such as specific heat, electrical conductivity and lattice vibrations in crystals.
- ❖ Understand the principles related to energy bands in solid-state devices, operation of diodes and their applications.
- ❖ Develop the theoretical understanding on operation of transistor, Amplifiers and oscillators and their applications to electronics devices.
- ❖ Understand basic concepts of modulation and demodulation.





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Physics

Astronomy and Space Physics

(Group B Paper I)

Course Learning Outcomes (CLO)

- ❖ Know the basic concepts of astronomy and space physics.
- ❖ Know about physical processes in stars and evolution of stars.
- ❖ Understand the structure and dynamics of galaxies.
- ❖ Aware with the working principle of astronomical tools and observations.





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**Nuclear and Particle Physics
(Group B Paper II)**

Course Learning Outcomes (CLO)

- ❖ Understand the structure of nucleus and nuclear energy.
- ❖ Understand the different forms of radioactivity and decay process.
- ❖ Develop the understanding form fission and fusion processes, Nuclear power Generation.
- ❖ Develop the understanding elementary particles and their properties.

