

Course Code: 2MSCP4

Course: Atomic & Molecular Physics

Credit: 3

Last Submission Date: October 31 (for January Session)

April 30, (for July session)

Max. Marks:-30

Min. Marks:-11

Note:-attempt all questions.

- Que.1 Discuss spin- orbit interaction and fine structure in alkali spectra.
- Que.2 Explain Pauli's exclusion principle.
- Que.3 Discuss the energy level and rotational spectra of non – rigid rotator.
- Que.4 Explain intensity of rotational lines.
- Que.5 Discuss vibration spectrum of diatomic molecule.
- Que.6 Explain Morse potential energy curve.
- Que.7 Explain Mossbauer spectroscopy.
- Que.8 What is Raman effect? Explain Raman effect by classical theory.