

Course Code: 3MSCP3  
Course: Electrodynamics  
Credit: 3  
Last Submission Date: April 30 (for January Session)  
October 31, (for July session)

Max. Marks:-30

Min. Marks:-11

Note:-attempt all questions.

- Que.1 State Biot- Savart law and relate it to ampere's law.
- Que.2 Explain the term retarded potential and obtain the electromagnetic field by moving point charge in space.
- Que.3 Define electromagnetic field tensor and derive Maxwell's equation in tensor form.
- Que.4 Give the Lorentz transformation of electric and magnetic field.
- Que.5 What do you mean by a plasma. Discuss the elementary concept by occurrence of plasma.
- Que.6 Explain the electrical neutrality in a plasma. Find expression for Debye shielding distance.
- Que.7 Explain the experimental study of plasma (single probes)
- Que.8 Derive the hydrodynamic equation for electrically neutral plasma in electromagnetic field.