

Total Pages—5

(Set-1)

**M.Sc. - 2nd(AP)**  
**Electrodynamics - I**

Full Marks : 70

Time : 3 hours

Answer any six questions including Q. No. 1

*The figures in the right-hand margin indicate marks*

1. Answer the following questions : 2 × 10

(i) Evaluate the integral

$$\int_0^5 \cos x \delta(x - \pi) dx.$$

(ii) Show that the surface of a conductor is equipotential.

(iii) Calculate the capacitance of a capacitor made up of two concentric spherical metal shells of radii 4 mm and 2 mm.

( Turn Over )