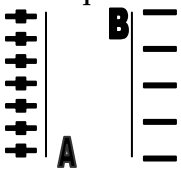
Sample Paper – 2008
Class – XII
Subject – Physics

Max Marks = 70 Min Marks = 27

Section-A

1. Two protons A and B are placed between two parallel plates having potential difference V as shown in the figure.
Will these protons experience equal or unequal forces?



2. In an electric field an electron is kept freely. If the electron is replaced by a proton, what will be the relationship between the forces experienced by them?
3. Why is voltmeter is always connected in parallel with a circuit element across which voltage is to be measured?
4. You are given three bulbs of 25, 40 and 60 watt. Which of them has lowest resistance?
5. What characteristic of the particle has been established by the Davison and Germer experiment? 1 x 5 = 5

Section-B

1. An electron and proton are moving in the same direction and possess same kinetic energy. Find the ratio of the de-Broglie wavelengths associated with these particles.
2. How do the photoelectric current and the kinetic energy of the photoelectrons emitted in a photocell vary if the intensity of the incident radiation is doubled?
3. A uniform wire of resistance is shaped into regular n sided polygon where n is even. Find the equivalent resistance between (1) opposite corners of the polygon (2) adjacent corners of the polygon.
4. A wire of resistance R is stretched, so that its radius decreases to, by a factor of n, calculate its new resistance.