Examrace

# Competitive Exams: Physics MCQs (Practice_Test 27 of 35)



1. A material may be identified as being paramagnetic if it
   a. can be permanently magnetised
   b. gets magnetised ire a direction opposite to that of the applied field
   c. exhibits strong magnetisation but only at very low temperatures
   d. exhibits strong magnetisation when placed in a magnetic field at room temperature but not at very low temperatures
2. Three charges are arranged at the vertices of an equilateral triangle as shown in the given figure. The electric potential energy at the centre of the triangle will be approximately (assume q = 10 – 7 c and a = 0.1 m)
   a. -0.1J
   b. -0.01J
   c. + 0.01J
   d. + 0.1J
3. What should be the charge on a soap bubble of radius 1.0 cm in order that the pressure is the same inside and outside the bubble (Assume surface. Tension to be 32 dyne/cm) ?
   a. 32 () p $\frac{1}{2}$ esu
   b. 32 p esu
   c. (32) $\frac{1}{2}$ p esu
   d. (32) p $\frac{2}{1}$ esu
4. Charges Q and-2Q are placed at some distance. The locus of points in the plane of the charges where the potential is zero will be
   a. a straight line
   b. a circle

c. a parabola

d. an ellipse

5. Assuming that the dipole moment of water is 5 × 10 cm, the value of the force of attraction between two water molecules will be of the order of

a. 10 – 20 N

b. 10 – 18 N

c. 10 – 16 N

d. 10 – 15 N

6. Two protons A and B are placed mid-way between the two plates of a parallel plate capacitor charged to a potential difference V as shown in the given figure. The forces on the two protons are:

a. not equal

b. equal but not zero

c. equal and zero

d. equal and V