

### Physics

#### Multiple Choice Questions (MCQ II)

1- Consider a uniform electric field in the z direction. The potential is a constant

- (a) in all space.
- (b) for any x for a given z.
- (c) for any y for a given z.
- (d) on the x-y plane for a given z.

2- Equipotential surfaces

- (a) are closer in regions of large electric fields compared to regions of lower electric fields.
- (b) will be more crowded near sharp edges of a conductor.
- (c) will be more crowded near regions of large charge densities.
- (d) will always be equally spaced.

3-In a region of constant potential

- (a) the electric field is uniform
- (b) the electric field is zero
- (c) there can be no charge inside the region.
- (d) the electric field shall necessarily change if a charge is placed outside the region.

4-If a conductor has a potential  $V \neq 0$  and there are no charges anywhere else outside, then

- (a) there must be charges on the surface or inside itself.
- (b) there cannot be any charge in the body of the conductor.
- (c) there must be charges only on the surface.
- (d) there must be charges inside the surface.

### Maths

#### Class-12 (maths)

(HW for 2 May - Saturday)

- (1) Solve questions number 3,4,5, Miscellaneous exercise 2
- (2) Solve example number 13 on page 51
- (3) Solve questions number 16,17,18 exercise 2.2
- (4) Solve example number 9,10 on page 70
- (5) What is the multiplication of matrix explain with example