H. W for Class - 12 B Date - 2/5/2020

## 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.