

Physics

- 1- How does the force between two point charges change if the dielectric constant of the medium in which they are kept increases?
- 2- Two point charges of unknown magnitude and sign are placed at distance d apart. The electric field intensity is zero at a point, not between the charges but on the line joining them . Write two essential condition for this to happen?
- 3- Show that no electric field exist inside of hollow charged conductor.
- 4- What are the properties of electrostatic line of force?
- 5- Sketch the electric line of force for two positive charge Q_1 and Q_2 where Q_1 is greater than Q_2 separated by a distance d .
- 6- Prove that the energy stored in a parallel plate capacitor is $\frac{1}{2} CV^2$.

Biology

- Q.1 Where is acrosome present in humans? Write its function.
- Q.2. Name the embryonic stage that gets implanted in the uterine wall of a human female.
- Q.3. Both vaccine and colostrum produce immunity. Name type of immunity produced by these.
- 4: Explain the role of pituitary and the ovarian hormones in menstrual cycle in human females.
- 5 -What are the various male accessory glands? Give their function.
- 6: Mention the name and role of hormones which are involved in regulation of gamete formation in human male.