H. W for Class - 12B

Date 26/5/2020

Physics

1-An electric dipole is placed at an angle of 30° with an electric field intensity 2 × 105 N/C. It experiences a torque equal to 4 N m. The charge on the dipole, if the dipole length is 2 cm?

2- Three concentric metallic spherical shells of radii R, 2R, 3R, are given charges Q1, Q2, Q3, respectively. It is found that the surface charge densities on the outer surfaces of the shells are equal. Then, the ratio of the charges given to the shells, Q1 : Q2 : Q3

3- Two identical charged spheres are suspended by strings of equal lengths. The strings make an angle of 30° with each other. When suspended in a liquid of density 0.8 g cm–3, the angle remains the same. If density of the material of the sphere is 1.6 g cm–3, the dielectric constant of the liquid is?

Biology

Q.1. (a) Arrange the following hormones in sequence of their secretion in a pregnant

woman.

(b) Mention their source and the function they perform:

hCG, LH, FSH, Relaxin

Q.38. (a) Why is hemophilia generally observed in human males? Explain the

conditions under which a human female can be hemophilic.

(b) Draw the male Reproductive system.

Q.39. (a) Draw a labelled diagram of a sectional view of human seminiferous tubule.

(b) Differentiate between gametogenesis in human males and females on the basis of

(i) time of initiation of the process.

(ii) products formed at the end of the process.