Physics - 10th Class Physics English Medium Chapter 10 Preparation

Q1. What is the displacement of an object in SHM when K.E. and P.E. are equal?

Ans 1: In simple harmonic motion when K.E. and P.E. are equal then the displacement will be the half of amplitude of vibrating body.

Q2. What is ripple tank?

Ans 1: Ripple tank is a device to produce water waves and to study their properties. Like reflection, refraction and diffraction.

Q3. Think several examples of motion in every day life that are simple harmonic.

Ans 1: i. Motion of pendulum clock ii. Motion of Ball in bowl
iii. Motion of spring iv. Motion of the prong of the tuning fork.

Q4. How can you define term wave?

Ans 1: Wave: A wave is disturbance in the medium which causes the particles of medium to undergo virbratory motion about their mean position in equal intervals of time.

Q5. Define vibration?

Ans 1: One complete round trip of vibrating body abut its mean position is called one vibration.

Q6. What is wave equation?

Ans 1: The relation between the velocity, frequency and wavelength of wave is known as wave equation. i.e. v = f lamda

---

Q7. What is reflection?

Ans 1: When waves moving in one medium fall on the surface of another medium they bounce back into the first medium such that the angle or incidence is equal to the angle of reflection. This phenomenon is called reflection of waves.

Q8. Define simple harmonic motion?

Ans 1: Simple harmonic motion occurs when the net force is directly proportional to the displacement from the mean position and always directed towards the mean position.

Q9. Define refraction.

Ans 1: When waves from one medium enter in the second medium at some angle their direction of travel may change.this phenomenon is called refraction of waves.

Q10. Define frequency?

Ans 1: The number of vibration or cycle of a vibrating body in one second is called its frequency.
It is reciprocal of time period i.g. f = l/T