



Dnyansagar Coaching Classes, A'nagar

Std. - XII

Sub- Physics-II

Unit Test

Unit : Wave theory of light

Time - 1 hrs

Max Marks - 20

- Q.1** **Select & write the most appropriate answer from the given alternatives for each sub question.** **4**
1. According to Huygen's wave theory of light different colours of light are due to
 - a) different sizes of light particles
 - b) different wave lents of waves
 - c) different velocity of light particles
 2. According to Newtons theory of light different colours of light are due pc.
 - a) different sizes of light particles
 - b) different wave lents of waves
 - c) different velocity of light particles
 3. Speed of light to denses medium is more as compare to speed of light in Rarer medium the given statement is according to
 - a) Brewster's law
 - b) Huygen's wave theory
 - c) Newtons carpuscular theory
 4. According to Max plank's quantum theory light is propogated in the form of
 - a) wave
 - b) carpuscal's
 - c) photon
 - d)
- Q.2** **Solve any two.** **4**
1. What is wave front and wave normal? Explain?
 2. What is plane polarised light? Explain plane of polarisortion and plane of vibration.
 3. State and Explain Brewsters Law.
- Q.3** **Solve any two.** **6**
1. Write a short note on Nicol prism.
 2. Explain refraction of a place wavefront at a plane surface.
 3. Give the experiment to demonstrate transverse nature of light.
- Q. 4** **Solve.** **6**
1. If a glass plate of retractive index is 1.7321 is to be used as a potarizer what would be the i) polarizing angle and ii) angle of refraction.
 2. The refractive indices of water and diamond are $\frac{4}{3}$ and 2.42 resp. find the speed of light in water and diamond hence find the refractive index of diamond with resped to water.
