CBSE Class 12 Physics Answer Key 2026 for 55/4/3

Q1) In a Young's double-slit experiment, the fringe width is found to be β. If the entire apparatus is immersed in a liquid of refractive index μ, the new fringe width will be?

a) β

b) μβ

c) β/μ

d) β/μ^2

Correct Answer: c) β/μ

Q2) A light of frequency v is incident on a metal surface whose work function is W_0. The kinetic energy of the emitted electron is K. If the frequency of the incident light is doubled, then the Kinetic Energy of the emitted electron will be?

a) 2k

b) more than 2k

c) between k and 2k

d) less than k

Correct Answer: b) more than 2k

Q3) Which of the following statements is not true for nuclear forces?

a) They are stronger than Coulomb forces.

b) They have about the same magnitude for different pairs of nucleons.

c) They are always attractive.

d) They saturate as the separation between two nucleons increases.

Correct Answer: c) They are always attractive.

Q5) Photons of energy 3.2 eV are incident on a photosensitive surface. If the stopping potential for the emitted electrons is 1.5 V, the work function for the surface is?

a) 1.5 eV

b) 1.7 eV

c) 3.2 eV

d) 4.7 EV

Correct Answer: b) 1.7 eV

Q6) Which one of the following has a relative magnetic permeability between 0 and 1?

a) Aluminium

b) Alnico

c) Water

d) Sodium

Correct Answer: c) Water

Q8) Name the electromagnetic waves also known as 'heat waves'?

a) Radio waves

b) Microwaves

c) X-waves

d) Infrared waves

Correct Answer: d) Infrared waves

Q9) A plane wavefront is incident on a concave mirror of radius of curvature 'R'. The radius of the refracted wavefront will be?

a) 2R

b) R

c) R/2

d) R/4

Correct Answer: c) R/2

Q10) A proton and an alpha particle have the same kinetic energy. The ratio of De Broglie wavelengths associated with the proton to that with the alpha particle is?

a) 1

b) 2

c) 2 root 2

d) 1/2

Correct Answer: b) 2