Worksheet: Dual Nature of Radiation and Matter

Odisha State Board · Class 12 · Physics · 5 questions · 12 marks

Name: _____	Date: _____	Score: _____ / 12

Q1. The threshold frequency of a metal is 5e14 Hz. Find the work function in eV (h = 4.14e-15 eV s). *[2 marks]*

Q2. Find the de Broglie wavelength of an electron accelerated through 100 V. *[2 marks]*

Q3. Photoelectrons of max KE 1.5 eV are emitted by 300 nm light. Find the work function (hc = 1240 eV nm). *[3 marks]*

Q4. Find the de Broglie wavelength of a proton (m = 1.67e-27 kg) at 2e6 m/s. *[3 marks]*

Q5. Stopping potential is 1.2 V for 400 nm light. Find the work function. *[2 marks]*