





Q. No	Scoring Indicators	Split Score	Total Score
12	a) Statement b) Derivation c) Threshold wavelength = $hc / \phi_0$ $= 6.62 \times 10^{-34} \times 3 \times 10^8 / 4.4 \times 1.6 \times 10^{-19} = 2821 \text{ \AA}$ The wavelength of light is greater than threshold wavelength and it cannot eject electrons from copper	$4 \times \frac{1}{2}$ 2        2	6
13	a) $N / N_0 = (1/2)^{t/T}$ $N / N_0 = (1/2)^{25/12.5} = (1/2)^2 = 1/4$	2	2
14	a) Postulates b) Explanation + formula c) Energy level diagram	2  2  2	6