

CL43\_Q1. Name the type of semiconducting material used in the fabrication of diode lasers and explain why such a material is chosen?

CL43\_Q2. Using E-K diagrams distinguish between direct and indirect band gap semiconductor.

CL43\_Q3. If the band gap of direct band gap semiconductor is 0.2 eV, estimate the wavelength of laser emitted from it. To which region of electromagnetic spectrum does it belong?

CL43\_Q4. A certain material has band gap of 2.1 eV. Comment on the transparency or the lack of it in the visible region for the given material.