

CL3\_Q1. Differentiate between circular and elliptical polarization states of electromagnetic waves.

CL3\_Q2. Find the energy density of electromagnetic wave, if the electric field of amplitude  $6.2 \text{ V/m}$  oscillates with a frequency of  $2.4 \times 10^{10} \text{ Hz}$ .

CL3\_Q3. Discuss the energy density in electromagnetic waves and how is it related with the Poynting vectors?

CL3\_Q4. Give expressions for two electric field wave functions that can produce circular polarization.