

I. Text Book::

Chapter 10: problems 36, 37, 45, 46

II:

(1) For the plane wave given by:

$$E_1(z) = \hat{a}_x 4 \cos(\omega t - \beta z) + \hat{a}_y 2 \cos(\omega t + 90^\circ - \beta z)$$

Determine the following:

- (1) direction of propagation
- (2) the polarization.