

EE 382 Applied Electromagnetics (Spring 2018)

Homework 10

Friday, April 5, 2018

- 1) 10.35a Also, plot the polarization ellipse with axes selected so that the wave propagates into the page. Determine the sense, AR, and tilt angle τ with respect to the vertical axis. Let $E_0 = 10$ V/m for plot.
- 2) 10.37 For part a), plot the polarization ellipse with axes selected so that the wave propagates into the page. Determine the sense, AR, and tilt angle τ with respect to the vertical axis.
- 3) 10.41
- 4) 10.46 First, find the phasor electric \bar{E}_s and magnetic \bar{H}_s fields. Then, find the time-average Poyting vector. **Typo- $\eta = \sqrt{(\mu_0/\epsilon_0)}$ in problem statement.**
- 5) 10.53
- 6) 10.58 Typo: part d) 'power density' not 'power'. Hint: Find phase constant from expression for \bar{E}_i .

Due Wednesday, April 11, 2018.