

ECE 341 HW 12

1. Problem 7.2 (i.e. Problem 7.2 in 5/E & answer sheet)
2. Problem 7.4 (i.e. Problem 7.4 in 5/E & answer sheet)
3. Problem 7.18 modified: At each of the listed frequencies [(a) through (d)], determine if the dry soil may be considered a low-loss dielectric (i.e. a “good” but not perfect insulator). At those/those frequency/ies, calculate the propagation constant β and the decay constant α .

Answer: (d) only. β and α are calculated using equations from the last class note.

4. Problem 7.21 (Answer in Appendix D of the book. Numerical calculations always have errors. As long as your answer is close enough, say, ~ 290 m, it is correct.)