

Introduction to Field Waves and Antennas – Spring 2020

Assignment #1

Instructions:

- Submission deadline is 8th June 2020. Late submission is not permitted and assignments handed in after the date will be returned unmarked and a mark of ZERO awarded.
- The assignment is an individual assignment and individual submissions are required.
- Assignment must be submitted on A4 paper either written by hand or with the help of a computer. No folders, binding, plastic sleeves, etc.

Students are respectfully reminded of the University and Department's policy on Plagiarism. Any submission that is either not original or bears an unacceptable similarity to a 3rd party document or submission will be awarded ZERO for the entire assignment.

Q1: Write in detail about the working principles of Microwave Ovens, Fridges, Freezers and Air Conditioners. Make a clear diagram of each one of them.

Q2: What is Smit Chart? Why we use Smith Chart? Also explain in detail about the parametric equations used in Smith Chart.

- Wave Impedance
- SWR, Voltage Maxima and Minima
- Impedance to Admittance Transformations
- Impedance Matching
- Lumped-Element Matching