Rensselaer EE
EPE
CSE

Department of Electrical, Computer, \& Systems Engineering

## FINAL EXAM

## 1. Short Questions (30 Points)

The total number of points is 60 . You should attempt 30 points worth, circling the numbers of the problems you wish to be graded. You will not get credit for doing extra problems.

## Total

## Long Questions (120 Points)

There are 10 long questions. You should do 4 questions. Note that problems $2-5$ form a set for which the answers need to be consistent and that problem 5 is based on the other three problems. If you choose to do these 4 problems, you should know whether your answers are correct. However, you may choose to solve any 4 problems as long as at least one problem involves Plane Waves (4, 6 or 10) and one involves transmission lines (3,5 or 8). Circle the numbers of the problems you wish to be graded. You will not get credit for doing extra problems.
2. Parallel Plate Trans Lines (30 Points)
3. Voltage Waves on Trans Lines (30 Points)
4. EM Waves - Inc. on Slab (30 Points)
5. Trans Lines \& Plane Waves (30 Points)
6. EM Waves Normal Inc. (30 Points)
7. Inductance- Magnetic Ckts (30 Points)
8. Pulses on Trans Lines (30 Points)
9. Charges and Capacitance (30 Points)
10. Wave Derivation and Solution (30 Points) $\qquad$
Total (150 Points)

