University of Portland
School of Engineering

EE 402/EE 502
Spring 2014
A. Inan

Homework # 5
(Assigned: Tuesday, April 15, 2014)
(Due: Thursday, April 24, 2014, 9:15a.m.)

These problems are assigned from Electromagnetic Waves by Inan/Inan (2000) (pages 232-248 & 321-326):

3-19, only parts (a) and (b). Refractive index of a liquid.
3-37. Communication over a lake.
3-39. Dry asphalt roads acting as mayfly traps?
3-40. Total internal reflection.
3-45. A V-shaped prism.
3-46*. Turning a perfect corner.
4-2. Parallel-plate waveguide modes.
4-4. VLF propagation in the earth-ionosphere waveguide.
4-8*. Evanescent wave filter design.
*Optional.

Please use the following guidelines for your homework solutions:
1) On the first sheet, at the top center, write: Homework #5-Solutions.
2) Provide your full name on the upper right corner of the first sheet.
3) Also write: EE 402/EE 502-Spring 2014 on the upper left corner of the first sheet.
4) Solve each problem on a separate sheet unless your solution is very short.
5) Box all of your answers.
6) Staple your solutions in the above order before you turn them in.

Please turn in your homework on time.

An important reminder:
EE 402/502-Final Exam is on Monday, April 28, 2014, 8:00-10:00.
Open book, open notes exam.