Sharif University of Technology

Electromagnetism 3
Problem Set 1

Electrostatics and BVP

Department of Physics, Sharif University of Technology.

Due Date: 15th October 2024

1 The Potential of a Charged Line Segment

Problem 3.20 of Zangwill 2013.

2 A Charged Spherical Shell with a Hole

Problem 3.12 of Zangwill 2013.

3 Symmetric and Antisymmetric Green Function

Problem 1.14 of Jackson 1999.

4 Two Electrostatic Theorems

Problems 1.15 and 1.16 of Jackson 1999.

5 Capacitance of a Set of Conductors

Problems 1.17 and 1.18 of Jackson 1999.

6 Boundary Value Problem

Problems 2.7 of Jackson 1999.

7 Green's Function

Problems 2.15, 2.16, 2.17 and 2.18 of Jackson 1999.