

## **Homework 1**

**EE 362 Electronic, Magnetic, & Optical Properties of Materials (Spring 2025)**

**Friday, January 17, 2025**

- 1) 1.1
- 2) 1.3
- 3) 1.8
- 4) For room temperature calcium in its crystal state, determine/calculate: a) Bravais lattice type, b) lattice constant(s), c) sketch primitive unit cell, d) atomic volume density, e) atomic surface density for top face, f) standard atomic weight, and g) mass density (How does your calculated value compare with accepted measured value?). Hint: Use Wikipedia as a resource.
- 5) 1.16
- 6) 1.17
- 7) 1.20
- 8) 1.21ad

**Due Friday, January 24, 2025.**

Hint: Unless otherwise specified, consult Appendix B and/or Appendix C for material properties.