

Physics 180B Test 3 Study Guide

Chapter 23

Concepts: Electromagnetic Waves, Speed of E-M waves, The ElectroMagnetic Spectrum, Energy in E-M Waves (p. 771-Solar Sails), Reflection and Refraction, Snell's Law, Index of Refraction, Total Internal reflection

Figures and Pictures: Making Waves p. 762, The Eerie glow p. 763, UltraViolet vision p. 765, 23. 3, 4, 5, 8, 15, 16, 17, 18, 19, 25, 26, 27, 28, 31, 45, 46

MC Questions: 1, 3, 6, 7, 8, 9, 11, 12, 13

Basic Problems: 1, 3, 5, 6, 9, 10, 11, 19, 20, 21, 32, 34, 38, 45, 46,

Medium Problems: 25, 36, 40, 43, 44, 45, 49, 50, 72, 73, 74, 75, 78, 83, 84

Chapter 24

Concepts: Mirrors-Reflection on a plane surface, spherical surface, sign rules, convex and concave mirrors, finding images, principal rays, magnification Lenses, concave and convex. equation 24.6. Graphical Methods for Mirrors and Lenses. (Skip sections 4, and thin lens equation 24.20)

Figures and Pictures: 3, 4, 9, 10, 11, 12, 15, 16, 19, 20, 27, 28, 30, 36, 37, 39

MC Questions: 1, 2, 3, 4, 5, 7, 9, 11, 12

Basic Problems: 5, 6, 7, 8, 9, 10, 13, 14, 15, 16, 17, 29, 30, 31, 32, 33, 34, 35, 49, 50, 51

Medium Problems: 11, 22, 36, 39, 40, 45, 46, 47, 48, 5, 57, 58, 59, 60, 62, 64

Most of these problems are very similar. You need to know the basic rules for any of these problems. You do NOT have to practice all of these problems!

Chapter 26

Concepts: Interference, Superposition, phase, Young's double slit experiment, Constructive and Destructive Interference, Thin Films, Holography (Skip sections 5, 6, 7, 8)

Figures and Pictures: 1, 2, 3, 4, 5, 6, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 40

MC Questions: 1, 2, 5

Basic Problems: 1, 2, 3, 4, 6, 7, 8, 15, 16,

Medium Problems: 5, 10, 14, 19, 22, 54, 56, 70

***Open-book Test with no notes, stickers or extra papers, please.
You may have written notes in the text, though.***