

KFY/AFY – Applied Physics

J.Erhart, 2019/2020

List of typical questions and problems for the study

Learn Conceptual examples, specific problems and questions in chapters specified below from the book

D. C. Giancoli: Physics, Principles with applications, 7th Edition, Pearson 2016, ISBN 978-1-292-05712-5

Chapter 9 – Static Equilibrium; Elasticity and Fracture

Problems – odd numbers 37, 41-45

Questions – 17-19

Chapter 10 – Fluids

Problems – odd numbers 3-5, 9-11, 15-19, 23-27, 31, 37-43

Questions – 1-5, 9-13

Chapter 11 – Oscillations and Waves

Problems – odd numbers 1-19, 25-31, 33-39, 45-49

Questions – 1-13, 21-25

Chapter 12 – Sound

Problems – odd numbers 1-5, 9-13, 27, 31

Questions – 1-8

Chapter 13 – Temperature and Kinetic theory

Problems – odd numbers 3-7, 11, 15, 23-31, 35, 37, 43, 45, 53, 55, 57

Questions – 1-5, 8-11, 18, 20-22

Chapter 14 – Heat

Problems – odd numbers 1, 3, 7, 9-15, 23-27

Questions – 1-9, 19-21

Chapter 15 – The Laws of thermodynamics

Problems – odd numbers 1-5, 19-25, 31, 37, 39, 43

Questions – 1-6, 10, 16-18

Chapter 16 – Electric charge and electric field

Problems – odd numbers 1-9, 19-27

Questions – 1-5, 8, 10-11, 18-21

Chapter 17 – Electric potential

Problems – odd numbers 1-11, 17-19, 33-37, 43-49

Questions – 1-10

Chapter 18 – Electric currents

Problems – odd numbers 1-11, 13-17, 27-33

Questions – 1-8, 11-15

Chapter 19 – DC circuits

Problems – odd numbers 1-3, 5-9, 15, 25, 39, 41
Questions – 1-9

Chapter 20 – Magnetism
Problems – odd numbers 1-5, 9-13, 25-27, 31, 35, 43
Questions – 1-5, 19

Chapter 21 – Electromagnetic induction and Faraday's Law
Problems – odd numbers 1-7, 17, 21, 37-39, 45
Questions – 1-8

Chapter 22 – Electromagnetic Waves
Problems – odd numbers 11, 13, 15
Questions – 1-7

Chapter 23 – Light: Geometrical optics
Problems – odd numbers 7-13, 25, 27-29, 33-37, 39-45
Questions – 2-6, 8-10

Chapter 24 – Wave Nature of Light
Problems – odd numbers 1-3, 31-37, 43-45, 57-63
Questions – 1-8

Chapter 25 – Optical instruments
Problems – odd numbers 23-25, 31-35, 43-45
Questions – 4-6

Chapter 27 – Early Quantum Theory and Models of the Atom
Problems – odd numbers 5, 9, 11-15, 19, 21, 23
Questions – 1-8, 25-26

Chapter 28 – Quantum Mechanics of Atoms
Problems – odd numbers 15-19, 33-35
Questions – 14-18

Chapter 30 – Nuclear Physics and Radioactivity
Problems – odd numbers 13-17, 37-45
Questions – 1-11