

গ্রন্থপঞ্জী

- 23 **Understanding Basic Mechanics**, F. Reif, John Wiley (1995).
- 24 **College Physics**, Jerry D. Wilson and Anthony J. Buffa, Prentice Hall (1997).
- 25 **Senior Physics, Part – I**, I.K. Kikoin and A.K. Kikoin, MIR Publishers (1987).
- 26 **Senior Physics, Part – II**, B. Bekhovtsev, MIR Publishers (1988).
- 27 **Understanding Physics**, K. Cummings, Patrick J. Cooney, Priscilla W. Laws and Edward F. Redish, John Wiley (2005).
- 28 **Essentials of Physics**, John D. Cutnell and Kenneth W. Johnson, John Wiley (2005).

GENERAL BOOKS

For instructive and entertaining general reading on science, you may like to read some of the following books. Remember however, that many of these books are written at a level far beyond the level of the present book.

- 1 **Mr. Tompkins** in paperback, G. Gamow, Cambridge University Press (1967).
- 2 **The Universe and Dr. Einstein**, C. Barnett, Time Inc. New York (1962).
- 3 **Thirty years that Shook Physics**, G. Gamow, Double Day, New York (1966).
- 4 **Surely You're Joking, Mr. Feynman**, R.P. Feynman, Bantam books (1986).
- 5 **One, Two, Three... Infinity**, G. Gamow, Viking Inc. (1961).
- 6 **The Meaning of Relativity**, A. Einstein, (Indian Edition) Oxford and IBH Pub. Co. (1965).
- 7 **Atomic Theory and the Description of Nature**, Niels Bohr, Cambridge (1934).
- 8 **The Physical Principles of Quantum Theory**, W. Heisenberg, University of Chicago Press (1930).
- 9 **The Physics—Astronomy Frontier**, F. Hoyle and J.V. Narlikar, W.H. Freeman (1980).
- 10 **The Flying Circus of Physics with Answer**, J. Walker, John Wiley and Sons (1977).
- 11 **Physics for Everyone** (series), L.D. Landau and A.I. Kitaigorodski, MIR Publisher (1978).
Book 1: Physical Bodies
Book 2: Molecules
Book 3: Electrons
Book 4: Photons and Nuclei.
- 12 **Physics can be Fun**, Y. Perelman, MIR Publishers (1986).
- 13 **Power of Ten**, Philip Morrison and Eames, W.H. Freeman (1985).
- 14 **Physics in your Kitchen Lab.**, I.K. Kikoin, MIR Publishers (1985).
- 15 **How Things Work: The Physics of Everyday Life**, Louis A. Bloomfield, John Wiley (2005).
- 16 **Physics Matters: An Introduction to Conceptual Physics**, James Trefil and Robert M. Hazen, John Wiley (2004).

APPENDICES

APPENDIX A 1 THE GREEK ALPHABET

Alpha	A	α	Iota	I	i	Rho	P	ρ
Beta	B	β	Kappa	K	κ	Sigma	Σ	σ
Gamma	Γ	γ	Lambda	Λ	λ	Tau	T	τ
Delta	Δ	δ	Mu	M	μ	Upsilon	Y	υ
Epsilon	E	ϵ	Nu	N	ν	Phi	Φ	ϕ
Zeta	Z	ζ	Xi	Ξ	ξ	Chi	X	χ
Eta	H	η	Omicron	O	$\omicron$	Psi	Ψ	ψ
Theta	Θ	θ	Pi	Π	π	Omega	Ω	ω

APPENDIX A 2 COMMON SI PREFIXES AND SYMBOLS FOR MULTIPLES AND SUB-MULTIPLES

Multiple			Sub-Multiple		
Factor	Prefix	Symbol	Factor	Prefix	symbol
10^{15}	Ter	T	10^{-9}	atto	a
10^{14}	Peta	P	10^{-10}	femto	f
10^{12}	Tera	T	10^{-12}	pico	p
10^9	Giga	G	10^{-15}	femto	f
10^6	Mega	M	10^{-18}	atto	a
10^3	kilo	k	10^{-21}	zepto	z
10^2	Hecto	h	10^{-24}	yocto	y
10^1	Deca	da	10^{-27}	zepto	z

APPENDIX A 3
SOME IMPORTANT CONSTANTS

Name	Symbol	Value
Speed of light in vacuum	c	$2.9979 \times 10^8 \text{ m s}^{-1}$
Charge of electron	e	$1.602 \times 10^{-19} \text{ C}$
Gravitational constant	G	$6.673 \times 10^{-11} \text{ N m}^2 \text{ kg}^{-2}$
Planck constant	h	$6.626 \times 10^{-34} \text{ J s}$
Boltzmann constant	k	$1.381 \times 10^{-23} \text{ J K}^{-1}$
Avogadro number	N_A	$6.022 \times 10^{23} \text{ mol}^{-1}$
Universal gas constant	R	$8.314 \text{ J mol}^{-1} \text{ K}^{-1}$
Mass of electron	m_e	$9.110 \times 10^{-31} \text{ kg}$
Mass of neutron	m_n	$1.675 \times 10^{-27} \text{ kg}$
Mass of proton	m_p	$1.673 \times 10^{-27} \text{ kg}$
Electron-charge to mass ratio	e/m_e	$1.759 \times 10^{11} \text{ C/kg}$
Faraday constant	F	$9.648 \times 10^4 \text{ C/mol}$
Rydberg constant	R	$1.097 \times 10^7 \text{ m}^{-1}$
Bohr radius	a_0	$5.292 \times 10^{-11} \text{ m}$
Stefan-Boltzmann constant	σ	$5.670 \times 10^{-8} \text{ W m}^{-2} \text{ K}^{-4}$
Wien's Constant	b	$2.898 \times 10^{-3} \text{ m K}$
Permittivity of free space	ϵ_0 $1/4\pi \epsilon_0$	$8.854 \times 10^{-12} \text{ C}^2 \text{ N}^{-1} \text{ m}^{-2}$ $8.987 \times 10^9 \text{ N m}^2 \text{ C}^{-2}$
Permeability of free space	μ_0	$4\pi \times 10^{-7} \text{ T m A}^{-1}$ $\cong 1.257 \times 10^{-6} \text{ Wb A}^{-1} \text{ m}^{-1}$

OTHER USEFUL CONSTANTS

Name	Symbol	Value
Mechanical equivalent of heat	J	4.186 J cal^{-1}
Standard atmospheric pressure	1 atm	$1.013 \times 10^5 \text{ Pa}$
Absolute zero	0 K	$-273.15 \text{ }^\circ\text{C}$
Electron volt	1 eV	$1.602 \times 10^{-19} \text{ J}$
Unified Atomic mass unit	1 u	$1.661 \times 10^{-27} \text{ kg}$
Electron rest energy	mc^2	0.511 MeV
Energy equivalent of 1 u	1 u c^2	931.5 MeV
Volume of ideal gas(0 $^\circ\text{C}$ and 1atm)	V	22.4 L mol^{-1}
Acceleration due to gravity (sea level, at equator)	g	9.78049 m s^{-2}