

IMPORTANT Book INSIDE ONE MARK
STD: X PHY by CHE. by TWO MARK

1. ✓ Uses of force (1.4.2 Force) Page-(3)
 $(T = F \times d)$ (SI unit Nm)
2. ✓ Define the torque? Formula and unit-(P-5)
3. ✓ write a short notes on 'Gears'
4. ✓ Impulse (1.6) $J = F \times t$ - and unit-(P-7)
5. Acceleration due to gravity $(g) = \frac{GM}{R^2}$
6. Mass of the Earth $(M) = \frac{g R^2}{G} = 5.972 \times 10^{24} \text{ kg}$
7. 'g' depends on the geometric radius ($g \propto \frac{1}{R^2}$)
8. value of g is zero at the centre of the earth
9. } polar Region - max, Equator - min, higher
altitude - decreases, below the earth - decreases m s^{-2}
10. } Earth $(g) =$ acceleration due to gravity at sea level 9.8 m s^{-2}
11. moon gravitational force is 1.625 m s^{-2}
12. $w = mg$ In the moon, $m = 60$, $(W = 60 \times 1.625)$ - N
13. ✓ Define the term 'weightlessness' (P-12)
14. ✓ State First Law of refraction (P-17)
15. ✓ Raydall scattering, Raman scattering (P-19)
16. ✓ Applications of convex and concave lens (P-20)
17. Lens makers formula $\frac{1}{f} = (p-1) \left(\frac{1}{R_1} - \frac{1}{R_2} \right)$
18. Power of a lens definition Formula $p = \frac{1}{f}$ (P-23)
19. The min. distance required to see the object: 25 cm
20. If time interval betⁿ two consecutive light pulse $< 0.1 \text{ s}$
21. presbyopia is otherwise called Old age hypermetropia
22. ✓ Astigmatism definition, uses of simple microscope (P-26)
23. ✓ Advantages and disadvantages of Telescopes
24. ✓ Define Kilocalorie - (P-34), Avogadro's law (P-37)
25. ✓ What is temperature? SI unit - Kelvin (P-38)
26. ✓ current flowing through conductor $(I = q/t)$
27. Nichrome high resistivity - $1.5 \times 10^{-6} \Omega \text{ m}$
28. $R_s = R_1 + R_2 + R_3$, $\frac{1}{R_p} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3}$ parallel connection
 series connection
29. ✓ Diff betⁿ series and parallel - (P-49) Table 4.3
30. ✓ Electric Heating Device, Fuse wire (P-50)
31. 1 horse power is equal to 746 watt.
32. 1 kWh = 1000 watt hr = 1000 (60x60) = $3.6 \times 10^6 \text{ J}$
33. ✓ Do you know - page 52 - India, USA & UK
34. LED - Light Emitting diode
35. LCD - Liquid Crystal Display

36. ✓ Acoustics definition (P-59)
37. ✓ Diff betⁿ the sound & light waves (P-60)
38. ✓ laws of reflection (P-62)
39. ✓ Rarer medium and denser medium (P-63)
40. ✓ Appln. of echo (5.3.2) page 64.
41. ✓ various possibilities of Doppler effect (P-65)
42. ✓ Definition of Doppler effect.
43. ✓ Appln. of Doppler effect (P-69)
44. Marie curie and pierre curie - Radium
45. ✓ Rutherford, Becquerel Definition (P-76)
46. Uranium - after the planet by Martin Klaproth
47. ✓ Nuclear fission & Nuclear fusion with eqn.
48. ✓ Do you know (P-78) nuclear bomb that was... (P-81)
49. ✓ Table 6.3, Do you know, uses of medicines.
50. ✓ Industries 6.5.3 Californium, Americium uses.
51. ✓ page 83 - Read - 2 (two) Do you know (P-81)
52. The first nuclear reactor was built in 1942 at Chicago, USA.
53. ✓ Uses of nuclear reactor. page (84)
54. ✓ Dr. Homi Jahangir Bhabha was the first chairman of Indian Atomic energy Commission
55. BARC - Bhabha Atomic Research Centre
56. Nuclear power is the fifth largest source of power in India
57. India's first nuclear power station - Tarapur
58. In nuclear power in Tamil Nadu, Kalpakkam, and Kudankulam.
59. The safe limit of receiving the radiation is about 100 mR per week.
60. First Scientific ^{atomic} theory - John Dalton
61. Atomic no. - no. of protons (or) ^{no. of} electrons
62. Atomic mass - no. of protons with no. of neutrons
63. If the molecule is made of similar kind of atoms then it is called homo atomic molecule
64. If a molecule contains more than three atoms then it is called poly atomic molecule
65. ✓ RMM (Relative, molecular, mass) page 95
66. ✓ Table 7.5 - page 96 - Diff betⁿ atom & molecule
67. NTP - normal Temp pressure
68. No. of moles } mass / Atomic mass
mass / molecular mass
No. of atoms / 6.023×10^{23}
No. of molecules / 6.023×10^{23}

69. / Avogadro Hypothesis, Appln. of Avogadro's law
page (98, 99)
70. / Define Isotopes, Trobars & Isotones (page 102)
71. / Page 107. State the law of modern periodic law
72. / page 109 - Tabular column - Group No | Family.
73. / page 110 - diff betⁿ anion/cation, Ionisation energy
74. i) Electronegativity \Rightarrow F = 4.0, Cl = 3.0, Br = 2.8, I = 2.5,
ii Distance betⁿ two Hydrogen nuclei is 0.74 Å $\left[\text{H} = 2.1, \text{Na} = 1 \right]$
75. If electronegativity diff betⁿ two elements is 1.7
the bond has 50% Ionic character, 50% covalent
character Ionic
76. If less than 1.7 \Rightarrow covalent bond; If greater than 1.7 \Rightarrow bond
77. / page 112 - Tabular column - Left Hand side up
78. / physical properties of metals - p-114.
79. / Define metallurgy, Crucible or matrix, Flux (X)
80. / magnetic separation method p-113
81. / Hall's process, physical properties of 'Al' (p-115)
82. uses of 'Al'? Aluminothermic process (page 116)
83. page 116 - Blister copper contains 98% pure copper
2% impurities is purified by electrolytic
refining
84. / page 117 - uses of copper
85. / ores of Iron - Haematite, magnetite, Iron pyrite
86. / uses of Iron - page 119 - Alloys, Amalgams,
Reasons for alloying.
87. / copper alloys, Aluminium Alloys, Iron alloys
88. / methods of preventing corrosion. page 120.
89. / The process of uniform distribution of solute
into solvent is called dissoln. page 125
90. / binary soln & Ternary soln. page 125
91. / Types of binary soln. - Table 9.1 - Super saturated
soln - page 126 & 127
92. / solubility = $\frac{\text{mass of the solute}}{\text{mass of the solvent}} \times 100$
93. (X) Henry's law - more to know - page 129
94. / Table 9.3 - Hydrated salts (X)
95. What happens during a chemical rxn. } page
96. Define the term. A balanced chemical eqn. } 138
97. Page-167 (Do you know) (X). Page-146 (Do you know)

- 97) Element + Element \rightarrow compd \Rightarrow $H_2 + Cl_2 \rightarrow 2HCl$
- 98) compd + Element \rightarrow compd \Rightarrow $PdS + Cl_2 \rightarrow PdS_2$
- 99) compd + compd \rightarrow compd \Rightarrow $SiO_2 + CaO \rightarrow CaSiO_3$
- 100) Formula for chalk, marble, limestone \Rightarrow $CaCO_3$
- 101) Thermolysis, Exothermic, Endothermic, Photolysis, metathesis reaction, precipitation rxns. with example, neutralization reaction with example
- 102) Table 10.1 \Rightarrow Diff betⁿ combination and decomposition reaction - page - 142.
- 103) More to know - (page - 144), Rate of a chemical reaction - (page - 145)
- 104) physical equilibrium - (page 147)
- 105) Soda water contains carbonic acid (H_2CO_3)
 $H_2O + CO_2 \rightarrow H_2CO_3$
- 106) p^H scale - Tabular column - Ionic product of water (K_w) = $[H_3O^+][OH^-]$
(Page 148) (OR) $(K_w) = [H^+][OH^-]$
- 107) Alkane formula - $C_n H_{2n+2}$
Alkene formula - $C_n H_{2n}$
Alkyne formula - $C_n H_{2n-2}$
Alkyl formula - $C_n H_{2n+1}$
- 108) i) characteristics of Hydrocarbon 11.3.2 (page - 158)
ii) To identify saturated & unsaturated,
iii) Define the term a functional group. (page - 158)
- 109) Table 11.2 classes of organic compds (page - 159)
- 110) characteristics of homologous series (page - 159)
- 111) IUPAC - International Union of pure and Applied chemistry
- 112) Three components of IUPAC i) Root word ii) prefix iii) Suffix
- 113) page 160 - prefix for IUPAC name
- 114) Table 11.5 - page 161 - suffix for IUPAC name
- 115) Table 11.6 - IUPAC name - page 163
- 116) page 164 \Rightarrow more to know, Dehydration, Esterification, Dehydrogenation, uses of ethanol
- 117) glacial acetic acid, Decarboxylation (Removal of CO_2) uses of Ethanoic acid, Diff betⁿ Hard soap and Soft soap, (Do you know - P - 167)
- 118) Advantages of detergents over soaps, TCM
Disadvantages of " " " "