

---

---

# CONTENTS

---

---

<b>General Aptitude</b>	<b>1–120</b>
1. Atoms, Molecules and Chemical Bonds.....	3–7
2. Carbohydrates.....	8–17
3. Fat Metabolism.....	18–26
4. Proteins : Structure, Classification and Properties.....	27–38
5. Vitamins.....	39–44
6. Nitrogen Metabolism.....	45–56
7. Enzymes.....	57–61
8. Principles of Bioenergetics.....	62–75
9. Biochemical Chemistry (pH and Buffers).....	76–79
10. Plasma Membrane.....	80–87
11. Structural Organization of Cell Organelles.....	88–115
12. Organization of Chromosomes.....	116–127
13. Cell Cycle and Mitosis.....	128–133
14. Cell Division (Meiosis).....	134–139
15. Bacterial Structure, Function, Production and Recombination.....	140–152
16. Protein Synthesis and Processing .....	153–157
17. Regulation of Gene Expression in Prokaryotes.....	158–164
18. Host-Parasite Interaction.....	165–168
19. Cell Signalling.....	169–171
20. Cellular Communication.....	172–174
21. Cancer : Characteristics, Causes and Prevention.....	175–180
22. Immune System.....	181–198
23. Human Male and Female Reproductive System.....	199–206
24. Basic Concept of Development.....	207–209

25. Basic Concept of Development : Stem Cell.....	210–212
26. Gametogenesis in Human.....	213–217
27. Double Fertilization (Endosperm).....	218–222
28. Seed : Development and Germination.....	223–229
29. Cell Aggregation and Differentiation in <i>Dictyostelium</i> .....	230–235
30. Molecular Genetics and Pattern Formation in <i>Drosophila</i> .....	236–239
31. Sex Determination.....	240–243
32. Organisation of Shoot and Root Apex.....	244–250
33. Leaf : Types, Modification, Phyllotaxy and Development.....	251–256
34. Levels of Structural Organisation (Body Tissues and Organisation).....	257–259
35. Programmed Cell Death .....	260–262
36. Aging and Senescence.....	263–266
37. Photosynthesis.....	267–278
38. Nitrogen Metabolism.....	279–282
39. Plant Growth Hormones.....	283–287
40. Cellular Respiration.....	288–294
41. Phytochrome, Cryptochrome, Phototropins and Photoperiodism.....	295–298
42. Translocation of Organic Solutes.....	299–302
43. Transpiration.....	303–306
44. Secondary Metabolites.....	307–309
45. Stress Physiology : Abiotic Stress .....	310–312
46. Human Blood.....	313–326
47. Blood Clotting Mechanism.....	327–337
48. Human Circulatory System.....	338–347
49. Nervous System.....	348–359
50. The Ear.....	360–364
51. The Eyes.....	365–371
52. Human Excretory (Urinary) System.....	372–376
53. Thermoregulation.....	377–380
54. Nutrition.....	381–394
55. Physiology of Digestion.....	395–406
56. Lymphatic System.....	407–414

57. Endocrine System.....	415–424
58. <i>Fasciola</i> : Life Cycle.....	425–429
59. <i>Ascaris</i> : Reproduction and Life Cycle.....	430–436
60. <i>Plasmodium</i> (Malarial Parasite).....	437–445
61. <i>Leishmania Donovanii</i> (Kala-Azar).....	446–451
62. Filariasis ( <i>Wuchereria Bancrofti</i> ).....	452–455
63. Sexually Transmitted Diseases (STD).....	456–463
64. Communicable Diseases and Control of Microbes.....	464–471
65. Mendelian Principles.....	472–487
66. Gene Control.....	488–490
67. Quantitative Inheritance.....	491–497
68. Gene Mapping Method.....	498–502
69. Human Genetics.....	503–510
70. Mutation (Gene Mutation, Induction of Mutation).....	511–517
71. Chromosomal Aberrations .....	518–526
72. General Principles of Taxonomy.....	527–533
73. Plant Systematics.....	534–539
74. Pesticide : Uses, Advantages, Hazards and Biological Control.....	540–546
75. Distribution of Conifers in India.....	547–550
76. Biosphere (Atmosphere, Lithosphere and Hydrosphere).....	551–555
77. Plant Population Dynamics .....	556–560
78. Ecosystem.....	561–566
79. Ecological (Biological) Indicators.....	567–568
80. The Community.....	569–574
81. Edaphic Factor.....	575–580
82. Ecological Succession (Hydrosere).....	581–583
83. Geographical Distribution of Gymnosperm.....	584–586
84. Biodiversity.....	587–595
85. Plant Breeding (Heterosis and Breeding).....	596–603
86. Environmental Pollution.....	604–610
87. Bioremediation.....	611–613
88. Biosensors.....	614–616
89. Origin of Life.....	617–623
90. Theories of Organic Evolution.....	624–637
91. Mechanism of Evolution.....	638–640
92. Animal Behaviour.....	641–644

93. Random Amplified Polymorphic DNA.....	645–646
94. Bacterial Artificial Chromosome.....	647–648
95. Electrocardiography.....	649–650
96. Restriction Fragment Length Polymorphism.....	651–653
97. Microbial Fermentation.....	654–656
98. Cell Culture.....	657–660
99. Transgenic Organisms.....	661–664
100. Genomics.....	665–667
101. Microscopy.....	668–672
● <b>Solved Model Papers (Objective Type).....</b>	<b>1–56</b>