A Handbook of Zoology: Book Review


Unit-I (Diversity in the Living World) describes the properties of living beings, systematics and rules of taxonomy including kingdom systems and various phyla from Porifera to Chordata. In first chapter, an outline of animal classification, concise description of coelom and salient features of different phyla are also given. In addition, domestication of animals is also described. This unit comprises 14 chapters from chapter 1-14 as following:

1. Living Organisms and Systematics
2. Kingdom Protista
3. Phylum 1. Porifera
4. Phylum 2. Coelenterata
5. Phylum 3. Ctenophora
6. Phylum 4. Platyhelminthes
7. Phylum 5. Aschelminthes
8. Phylum 6. Annelida
13. Phylum 11. Chordata
14. Domestication of Animals

Unit-II (Histology and Immunology) describes four basic types of tissues found in animals namely epithelium, connective, muscular and nervous and integumentary system including skin and its derivatives. Different types of immunity, human immune system, immune response mechanism, antibodies and their types, allergy, inflammation, organ transplantation, immunization, ageing, cancer etc. are also described in this unit. Acquired immuno deficiency syndrome (AIDS) is described in detail. This second unit comprises 2 chapters from chapter 15-16. Names of these chapters are:

1. Animal Tissues and Skin
2. Immune System

Unit-III (Human Anatomy and Physiology) describes anatomy and physiology of different mammalian systems with special reference to human. It comprises 7 chapters from chapter 17-23. These chapters are as following:

1. Digestive system
2. Respiratory system
3. Circulatory system
4. Excretory system
5. Skeletal system
6. Nervous system
7. Chemical co-ordination and Regulation

Unit-IV (Human Reproduction) describes reproductive system, physiology of reproduction and embryonic development of human. Moreover, reproductive health, infertility and assisted reproductive technologies (ARTs), test tube baby, amniocentesis, MTP, sterilization and contraception (birth control measures) are also a part of this unit. Different types of birth control measures are nicely represented in tabular form. It comprises 3 chapters from chapter 24-26 namely:
1. Reproduction
2. Embryonic Development
3. Reproductive Health

Unit-V (Origin and Evolution of Life) describes how life is originated on the earth. Theories and evidences of organic evolution, geological time scale, human evolution, population genetics, genetic drift, speciation, different types of natural selection etc. are included in this unit. It comprises 5 chapters from chapter 27-31:
1. Origin of Life
2. Theories and Evidences
3. Geological Time Scale
4. Human Evolution
5. Population Genetics and Natural Selection

Unit-VI (Genetics and Biotechnology) describes Mendelian genetics, genetical terminology, gene interaction, linkage, crossing over, different types of sex determining mechanisms, haploid genetics, human genetics (human karyotype, sex determination, sex linked inheritance, sex limited inheritance, sex influenced inheritance, syndromes, Barr body and Lyon’s hypothesis, inborn errors, sickle cell disease, ABO blood grouping, eugenics etc.), molecular biology (DNA, RNA, replication, flow of genetic information and central dogma, genetic code, transcription, terminism, translation, regulation, mutation etc.). Moreover, genetic engineering, biotechnologies are also described with processes and applications. This last unit comprises 4 chapters from chapter 32-35 as following:
1. Genetics
2. Human Genetics
3. Molecular Biology
4. Processes and Applications of Biotechnology

Unit-VII (Exam Question Paper) incorporates memory based CPMT 2015 question paper containing 50 questions of Zoology. The questions are followed by answers. This unit also contains AIPMT 2015 question paper having 50 questions of Zoology. These questions are followed by answers too. The handbook reviewed above is therefore up-to-date and ultimate on the subject. Anyone can understand Zoology with the help of this book and can get success in completion easily as it comprises a lot of valuable, useful and updated material to subject as well, as objective type questions in simple language.