

B.Sc ZOOLOGY SYLLABUS UNDER CBCS

II ..SEMISTER

CORE PAPER..II

ANIMAL DIVERSITY- VERTEBRATES

BLOCK – I PROTOCHORDATA---UROCHORDATA, CEPHALOCHORDATA

- Unit –1 : Vertebrata- General Characters and Classification up to order level .
- Unit –2 : Urochordata – Type study – *Herdmania* – Retrogressive Metamorphosis.
- Unit- 3 : Cephalochordata- Salient features and Affinities- Type study *Amphioxus*.

BLOCK – II CYCLOSTOMATA AND PICES

- Unit –4 : Cyclostomata – General Characters and Affinities.
- Unit –5 : Pisces – General Characters and Classification up to order level;
- Unit –6 : *Scoliodon* – Type study.

BLOCK – III AMPHIBIA AND REPTILIA

- Unit –7 : Amphibia – General Characters, Classification up to order level; Parental Care in Amphibia.
- Unit –8 : Reptilia – General Characters and Classification up to order level; Dinosaurs- Temporal fosse in reptiles and its evolutionary importance ; Distinguished characters of Poisonous and Non poisonous snakes.
- Unit –9 : *Calotes* – Type study.

BLOCK – IV AVES AND MAMMALIA

- Unit –10 : Aves – General Characters and Classification up to order level, Flight Adaptations and Migration in Birds.
- Unit –11 : Pigeon- Type study
- Unit –12 : Mammalia – General Characters and Classification up to order level, Aquatic adaptation in Mammals, rabbit- Type study

**B.Sc PRACTICAL SYLLABUS FOR II SEMISTER
ZOOLOGY- CORE PAPER..II
ANIMAL DIVERSITY- VERTEBRATES
LABORATORY MANUAL & RECORD**

BLOCK-I : VERTEBRATES - Study of museum slides / specimens / models (Classification of animals up to orders)

Unit- 1 : Introduction to Chordata – Introductory class

Unit- 2 : Protochordata: *Amphioxus*, *Amphioxus* T.S. through pharynx

Unit- 3 : Cyclostomata: *Petromyzon*, *Myxine*, *Ammocoetus* larva

Unit- 4 : Pisces: *Pristis*, *Torpedo*, *Protopterus*, *Ophiocephalus*, *Pleuronectes*, *Hippocampus*, *Exocoetus*, *Anabus*, *Echieneis*, *Labeo*, *Catla*, *Clarius*, *Auguilla*, scales: Placoid, Cycloid, Ctenoid

Unit- 5 : Amphibia: *Ichthyophis*, *Amblystoma*, *Axolotal* larva, *Bufo*, *Hyla*, *Rana*, *Rachophous*,

Unit- 6 : Reptilia : *Chelone*, *Testudo*, *Trionyx*, *Sphenodon*, *Gecko*, *Draco*, *Varanus*, *Chamaeleon*, *Python*, *Ptyas*, *Bungarus*, *Naja*, *Vipera russeli*, *Enhydrina*, *Crocodilus*.

Unit- 7 : Aves: *Archaeopteryx*, *Bubo*, *Psittacula*, *Eudynamus*, *Dendrocorpus*, *Alcedo*, *Columba*, *Corvus*, *Pavo*, Collection and study of different types of feathers: Quill, Contour, Filoplume, Down

Unit-8 : Mammalia: *Ornithorhynchus*, *Macropus*, *Erinaceus*, *Pteropus*, *Loris*, *Manis*, *Funambulus*.

**BLOCK- II : BLOCK – II HISTOLOGICAL SLIDES & COMPARATIVE
OSTEOLOGY**

Unit-9 : Study of Histological Slides of Mammal- T.S. of Liver, Pancreas, Kidney, Stomach, Intestine, Lungs Artery, Vein, Bone T.S., Spinal cord.

Unit- 10 : Rabbit – Axial skeleton system (bones of Skull and Vertebral Column)

Unit –11 : Appendicular Skeleton:
Pectoral Girdle and Pelvic Girdles of *Varanus*, Fowl & Rabbit

Unit –12 : Appendicular Skeleton:
Forelimb Skeleton and Hindlimb Skeleton of *Varanus*, Fowl & Rabbit

BLOCK III: DISSECTIONS

Unit- 13 :Dissections of *Labeo*/*Tilapia*:

1. Digestive system.
2. Brain, Weberian ossicles
3. V, VII, IX, X cranial nerves
