

RAYALASEEMA UNIVERSITY, KURNOOL

ZOOLOGY SYLLABUS FOR II SEMESTER – 2022-23

PAPER – II: ANIMAL DIVERSITY – BIOLOGY OF CHORDATES

HOURS: 60 (5X12)

Max. Marks: 100

Unit - I

- 1.1 General characters and classification of Chordata upto classes
- 1.2 Protochordata- Salient features of Cephalochordata , Affinities of Cephalochordata.
- 1.3 Salient features of Urochordata
- 1.4 Structure and life history of *Herdmania*
- 1.5 Retrogressive metamorphosis –Process and Significance

Unit - II

- 2.1 Cyclostomata, General characters, Comparison of *Petromyzon* and *Myxine*
- 2.2 Pisces : General characters of Fishes
- 2.3 *Scoliodon*: Digestive system, Respiratory system, Structure and function of Heart.
- 2.4 Migration in Fishes
- 2.5 Types of Scales
- 2.6 Dipnoi

Unit - III

- 3.1 General characters of Amphibia
- 3.2 Classification of Amphibia up to orders with examples.
- 3.3 *Rana hexadactyla*: Respiratory system, Structure and function of Heart, structure and functions of the Brain
- 3.4 Reptilia: General characters of Reptilia, Classification of Reptilia up to orders with examples
- 3.5 *Calotes*: Respiratory system, Structure and function of Heart, structure and function of Brain

Unit - IV

- 4.1 Aves General characters of Aves
- 4.2 *Columba livia*: Digestive system, Respiratory system, structure and function of Brain
- 4.3 Migration in Birds
- 4.4 Flight adaptation in birds

Unit - V

- 5.1 General characters of Mammalia
- 5.2 Classification of Mammalia up to sub - classes with examples
- 5.3 Dentition in mammals

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ZOOLOGY - PAPER - II

ANIMAL DIVERSITY - BIOLOGY OF CHORDATES

Periods: 24

PRACTICALS

Max. Marks: 50

OBSERVATION OF THE FOLLOWING SLIDES / SPOTTERS / MODELS

1. **Protochordata** : *Herdmania, Amphioxus, Amphioxus* T.S through pharynx.
2. **Cyclostomata** : *Petromyzon and Myxine*.
3. **Pisces** : *Pristis, Torpedo, Hippocoampus, Exocoetus, Echeneis, Labeo, Catla, Clarius, Channa, Anguilla*.
4. **Amphibia** : *Ichthyophis, Amblystoma, Axolotl larva, Hyla*,
5. **Reptilia**: *Draco, Chamaeleon, Uromastix, Testudo, Trionyx, Russels viper, Naja, Krait, Hydrophis, Crocodile*.
6. **Aves** : *Psittacula, Eudynamis, Bubo, Alcedo*.
7. **Mammalia**: *Ornithorhynchus, Pteropus, Funambulus*.

Dissections

1. *Scoliodon* IX and X, Cranial nerves
2. *Scoliodon* Brain
3. Mounting of fish scales