

SRI VENKATESWARA UNIVERSITY: : TIRUPATHI

W.E.F. 2016-17

ZOOLOGY SYLLABUS FOR II SEMESTER

ZOOLOGY –PAPER-II (THEORY)

ANIMAL DIVERSITY –CHORDATES

PERIODS- 60

MAX. MARKS -100

UNIT-1 (PROTOCHORDATA)

- 1.1. Origin of Chordata.
- 1.2. Chordata: Distinctive Features & Classification of up to class level.
- 1.3. Protochordata : Sailer Features
- 1.4. Herdmania; Structure, Life History & Retrogressive Metamorphosis.

UNIT-2: CYCLOSTOMATA & FISHES

- 2.1. Cyclostomata: General characters & Difference between Petromyzon and Myxine
- 2.2. Fishes: General Characters& Classification up to sub-class level with examples
- 2.3. Migration of Fishes
- 2.4. Types of Scales in Fishes

UNIT-3: AMPHIBIA & REPTILIA

- 3.1 Amphibia: General characters & Classification up to the level of order with examples
- 3.2. Type Study: *Rana hexadactyla*: External Features, Skeleton System (Skull, Girdles and Limb bones only), Digestive System, Respiratory System, Heart, Arterial System, Venous System and Central Nervous System (Brain & Spinal cord).
- 3.3. Reptelia: General Characters & Classification up to the level of order with examples.

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UNIT-4 (AVES)

- 4.1 Aves: General Characters & Classification up to sub-class level with examples
- 4.2. Type Study: Columba livia - External Features, Digestive System, Respiratory systems, Heart and Double Circulation (Systemic and Pulmonary Circulations).
- 4.3. Migration of Birds.
- 4.4. Flight adaptations in Birds
- 4.5. Evolutionary Significance of Archaeopteryx.

UNIT-5 (MAMMALIA & ZOOGEOGRAPHY)

- 5.1 Mammalia: General Characters & Classification up to sub class level with examples
- 5.2. Dentition in Mammals
- 5.3. Geographical Features of Oriental Region & its Fauna.
- 5.4. Geographical Features of Australian Region & its Fauna.
- 5.5. Geographical Features of Ethiopian Region & its Fauna.

SUGGESTED READINGS

1. **E.L.Jordan and P.S Verma** 'Chordate Zoology'-S .Chand Publications
2. **Mohan P Arora** 'Chordata -I,Himalaya Publishing House Pvt.ltd.
3. **Marshall, Parker and Haswell** 'Text book of vertebrates.' ELBS and Mc Millan , England .
4. **Alfred Sherwood Romer.** Thomas S Pearson' The Vertebrates body, Sixth edition, CBS college publishing Saunders College Publishing.
5. **George C.Kent,Robert K Carr.** Comparative Anatomy of the Vertebrates,9th ed. Mc Graw Hill.
6. **Kenneth Kardong Veretbrates** : Comparative Anantomy Function and Evolution,4th ed, 'McGraw Hill.
7. **J.W.Young** The life of Vertebrates , 3rd ed, Oxford University Press.
8. **Harvey Pough F, Christine M Janis, B Heiser,** Vertebrate Life, Pearson 6th ed, pearson Education Inc. 2002.
9. **R.L Kotpal,** Modern text book of Zoology, Rastagi Publications.

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SRI VENKATESWARA UNIVERSITY : : TIRUPATHI
ZOOLOGY PRACTICAL SYALLABUS FOR II SEMESTER
ZOOLOGY –PAPER-II (Practical) – W.E.F. 2016-17
ANIMAL DIVERSITY –CHORDATES

Periods-30**Max. Marks-50**

Observation of the following Slides/Spotters/Models/Handouts.

Protochordata : Herdmania , Amphioxus,

Cyclostomes : Petromyzon, Myxine

Pisces : Labeo rohita, Catla, Channa, Clarius, Hippo Campus, Exocoetus, Echeneis, Anguilla, Pristis, Tarpedo, Protopterus or any one Dipnoi Fish.

Fish Scales- Placoid, Cycloid, Ctenoid Scales

Amphibia : Hyla , Rachophorus, Icthyophis, siren, Amblystoma, Axolotl Larva.

Reptilia : Chamaeleon, Uromastix, Draco, Trionyx, Naja, Bungarus, Enhydryna, Russels viper , Crocadilus.

Aves : Passer, Columba, Collection and study of different feathers (Quill, Contour, Filoplume & Down) of Columba.

Mammalia : Ornithorhynchus, Tachyglossus, hedgehog, Loris, Manis.

Osteology : Skelton of Frog or Pigeon - Skull, Pectoral girdle, Pelvic girdles, Fore & Hind Limb bones.

Demonstration of dissection/ Dissected/ Virtual dissection.

1. Arterial system of Frog / Calotes / Bird / Rat.
2. Venous System of Frog / Calotes / Bird / Rat.
3. Digestive System of Frog / Calotes / Bird / Rat.

❖ Certified Laboratory record should be submitted at the time of Practical examination.

Signature of the Chairman / Chairperson (B.O.S.) :

Signature of the Members:

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13/12/16

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13/12/16

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SRI VENKATESWARA UNIVERSITY :: TIRUPATHI
ZOOLOGY MODEL QUESTION PAPER FOR II SEMESTER
ZOOLOGY –PAPER-II (THEORY) – W.E.F. 2016-17
ANIMAL DIVERSITY –CHORDATES

TIME-3Hrs

Max. Marks-75

PART-A

- I. Answer any Five of the following**
Each question carry 5 marks

5X5=25

1. General Charcters of Urochordates
2. Placoid Scale
3. Types of scales in fishes
4. Frog Skull
5. Migration of Birds
6. Urodela
7. Archaeopteryx
8. Prototheria

PART-B

- II. Answer any five questions .each question carry 10.marks**

10X 5=50

9. List three distinctive features of chordates and explain the origin of chordata..

Or

Describe life history of Herdmania with an emphasis on Retrogressive. metamorphosis .

10. Write an essay on Migration of fishes.

Or

Give on account of Arterial System in Frog

11. Classify Amphibia up to orders with Suitable examples

Or

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Classify the class reptilia up to the level of order list their features and give examples.

12. Give an account on flight adaptations in birds

Or

List the general characters of birds and classify them up to Sub-class level and give examples.

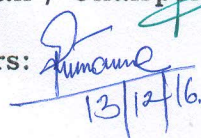
13. Write an essay on Dentition in Mammals

Or

Describe the geographical features of Australian Region and give an account on its fauna.

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SRI VENKATESWARA UNIVERSITY :: TIRUPATHI
ZOOLOGY MODEL PRACTICAL EXAMINATION FOR II SEMESTER
ZOOLOGY –PAPER-II (Practical) – W.E.F. 2016-17
ANIMAL DIVERSITY –CHORDATES

TIME-2 Hrs

Max. Marks-50

1. Identify the given dissection and Draw a labeled diagram 10 Marks
 2. Identify, write identification points & draw labeled diagrams of the following
 spotters.
 A, B, C, D, E, F, G (One each from Prochordates, Fishes, Amphibia
 Reptiles , Aves , and Osteology) 6 X5 = 30 M
 3. Certified Practical record 10 M
- Without Practical record –Student is not admitted for exam

Spotters

Identification	}	1 M
Classification		
Labeled Diagram	-2 M	
Comments	- 2 M	

Signature of the Chairman / Chairperson (E.O.S.) :

Signature of the Members:

