



ST. ALOYSIUS COLLEGE(AUTONOMOUS), JABALPUR

Reaccredited 'A+' Grade by NAAC(CGPA:3.58/4.00)

College with Potential for Excellence by UGC

DST-FIST Supported & STAR College Scheme by DBT

B.Sc. III Semester
SUBJECT: Zoology

Part A – Introduction			
PROGRAMME: UG Diploma	Class: B.Sc.	2 Year/ III Semester	Session – 2026-27
Subject – Zoology			
1	Course Code		
2	Course Title	Basic classification of Animal Kingdom	
3	Course Type	M-3 MINOR	
4	Pre – requisite (if any)	To study this course the student must have studied Zoology in B.Sc. I Year.	
5	Course Learning Outcomes (CLO)	Course Learning Outcome (CLO): After the completion of the course the learners will be able to: 1. Learn about the importance of systematic, taxonomy and phylogeny to get a concrete idea of evolution of Non-Chordata Phyla. 2. Understand various morphological, anatomical structures and functions of animals of different phyla 3. Understand chordate diversity of animals and their taxonomic position 4. Identify the morphological and anatomical features and basis of chordate classification. 5. Know economic importance and present status that will develop positive attitude towards conservation of biodiversity	
6	Credit Value	03	
7	Total Marks	Max. Marks: 30+70	Min. Passing Marks: 35

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Part B- Content of the Course

Total No. of Lectures- Tutorials- Practical (in hour per week) : 3 hour per week L-T-P

Unit	Topics	No. of Lectures
I	• Introduction Of Animal Kingdom 1. Classification of Lower non-chordates by Charak on the basis of their habitat and Nutrition (Reference. Charak Samhita, Sutrasthan 27/34-45). 2. Correlation between mythological Avatars and evolution of animals. 3. Outline classification of animal kingdom. 4. Characteristics and outline classification up to classes (according to Parker & Haswell, 7th edition revised by Marshall & Williams) under Lower Invertebrates: 4.1 Phylum Protozoa 4.2 Phylum Porifera 4.3 Phylum Coelenterata (Cnidaria) 4.4 Phylum Platyhelminthes 4.5 Phylum Aschelminthes (Nematoda) Keywords: Classification, Protozoa, Porifera, Coelenterata, Platyhelminthes, Aschelminthes. Suggested Activity: Collect pictures of lower invertebrates and write their zoological names.	12
II	Higher Invertebrate 1. Classification of higher non-chordates as mentioned in Vedas, particularly Rigveda and Yajurveda 2. Higher Invertebrates. General Characters of the phylum and outline classification up to classes with distinctive characters and suitable examples. 2.1 Phylum Annelida 2.2 Phylum Arthropoda 2.3 Phylum Mollusca 2.4 Phylum Echinodermata 2.5 Phylum Hemichordata Keywords: Annelida, Arthropoda, Mollusca, Echinodermata, Hemichordata Suggested Activity- Make Placards of Annelida, Arthropoda, Mollusca, Echinodermata, Hemichordata.	11

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III	Protochordata 1. Introduction to Chordates. 2. Traditional Knowledge on Animal Science in ancient Bhartiya Civilization. 3. Origin of Chordates, General characteristics and outline classification of Phylum Chordata up to classes according to Parker and Haswell, (Seventh Edition) 4. Protochordata: General characteristics and classification of Sub-Phylum Urochordata and Cephalochordata. 5. Agnatha: Comparison of Petromyzon and Myxine Keywords: Classification, Urochordata, Cephalochordata, Agnatha Suggested Activity: Collect pictures of Protochordata and write their zoological names.	11
IV	Vertebrate 1. General characteristics and outline classification of Phylum Chordata of following classes up to sub-classes according to Parker and Haswell (Seventh Edition) 1.1 Pisces 1.2 Amphibia 1.3 Reptilia 1.4 Aves 1.5 Mammalia Keywords: Pisces, Amphibia, Reptilia, Aves, Mammalia Suggested Activity Preparation of charts based on Vertebrate Pisces, Amphibia, Reptilia, Aves. Mammalia.	11

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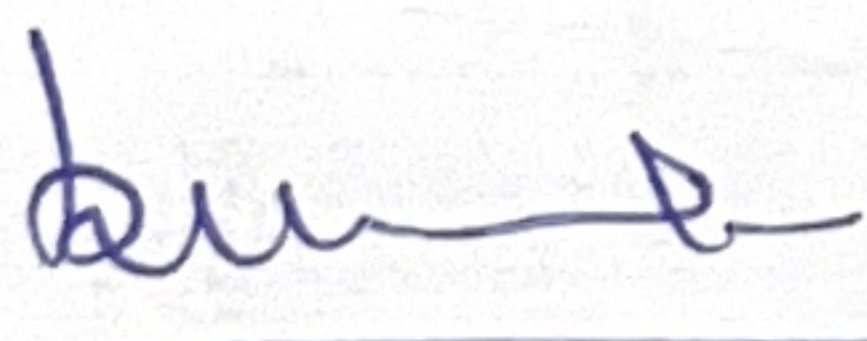
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SUBJECT: Zoology

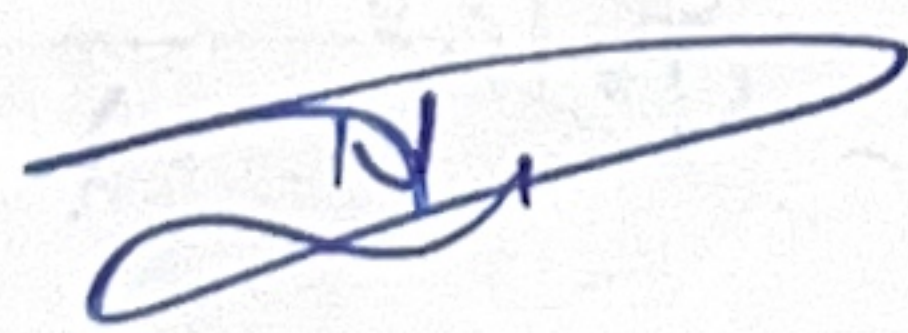
Practical syllabus

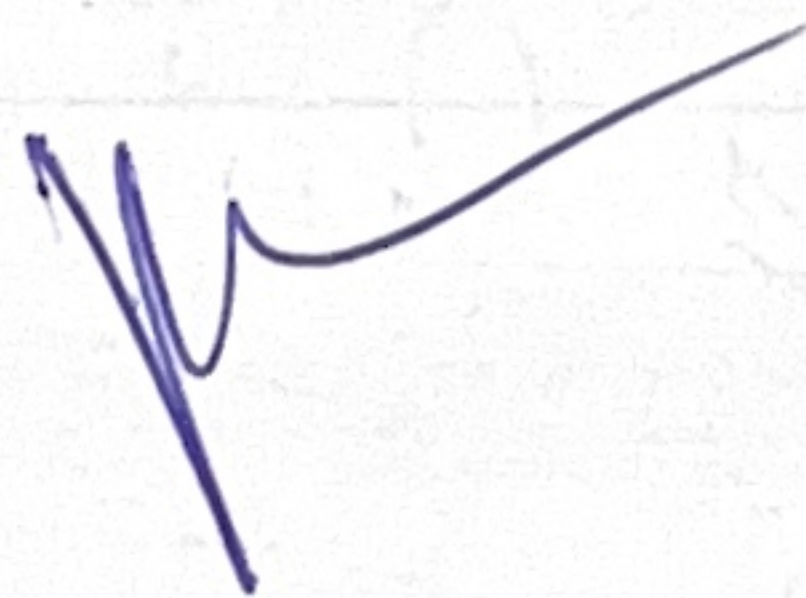
Scheme B-1 (For course of science Practical Discipline having Major Practicum Component)

Part A – Introduction			
PROGRAMME: Diploma	Class: B.Sc.	2 Year/ III Semester	Session – 2026-27
Subject – Zoology			
1	Course Code	Practical of animal diversity of chordates	
2	Course Title	Minor -I (3)	
3	Course Type	To study this course a student must have had subject of the	
4	Pre – requisite (if any)	zoology in B. Sc. I year	
5	Course Learning Outcomes (CLO)	After the completion of the course the learner will be able to: 1. Learn about the importance of systematic taxonomy and phylogeny to get a concrete idea of evolution of Non-Chordate phyla. 2. Understand various morphological anatomical structures and functions of animals of different phyla. 3. Understand Chordata diversity of animals and their taxonomic positions. 4. Identify the morphological and anatomical features and basis of chordate classification. 5. Know economic importance present status that will develop positive attitude towards conservation of biodiversity.	
6	Credit Value	01	
7	Total Marks	Max. Marks:30 +70	Min. Passing Marks: 35

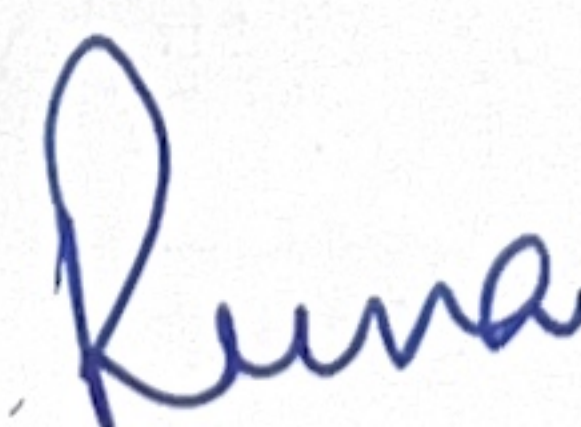

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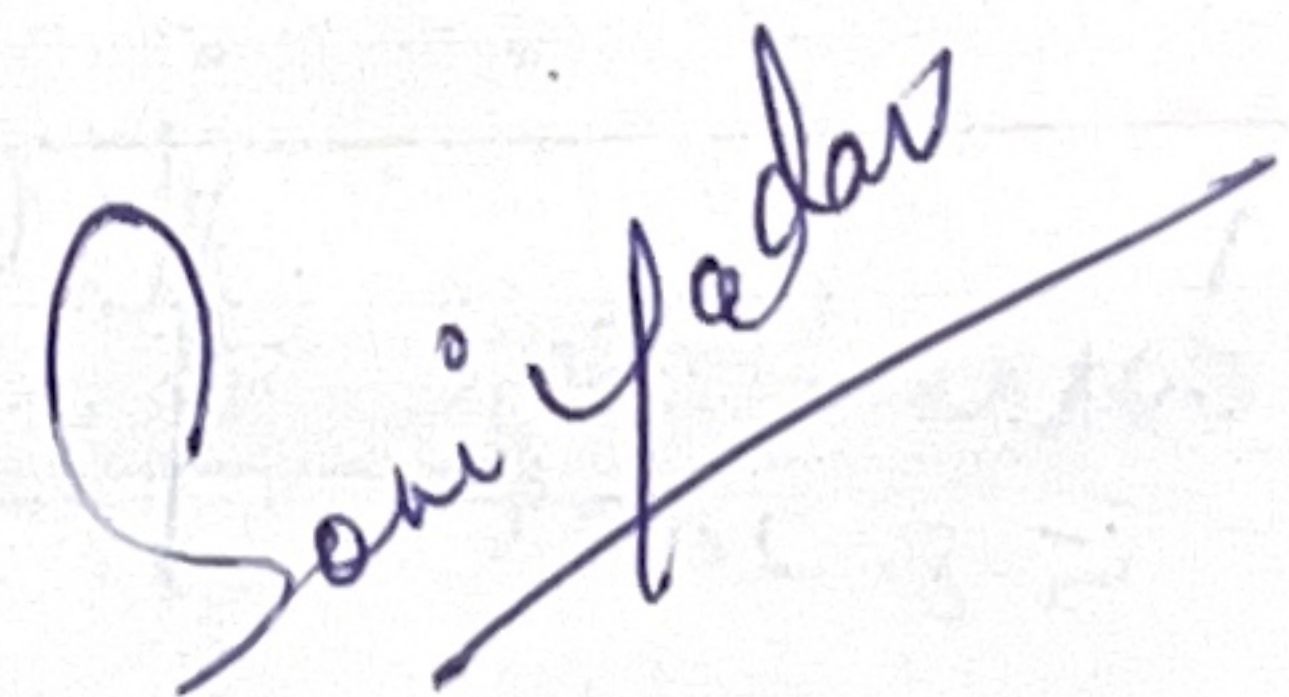
















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Part B- Content of the Course

Total No. of Lectures- Tutorials- Practical (in hour per week) : 2 hour per week

Total number of lectures: 30 Hours

Unit	Topics	No. of Lectures
I	1. Study of museum specimens and slides relevant to the lower invertebrates. 2. Mounting: locally available small non chordates their larvae. 3. Examination of different kinds of microscopic Non-Chordate Organism.	8
II	1. Study of museum specimens and slides relevant to the higher invertebrates. 2. Dissection: (Demonstration only through You-tube video and model or charts) 3. Earthworm -Digestive system, Nervous system, Reproductive system. 4. Prawn- Nervous system and appendages.	8
III	1. Study of museum specimens and histological slides: Protochordata Herdmania, Amphioxus, Aganatha	7
IV	1 Study of museum specimens Fishes, Amphibia, Reptiles ,Aves Mammalia. 2 Study histological slides: Stomach, Intestine, Liver, Pancreas Ovary, Testis. 3 Dissection of local fish (Only demonstration of commercially available local fish through computer stimulation method through Youtube videos through models and chart). a) General Viscera, arterial system b) Cranial nerves V,VII, IX and X. Keywords: Museum specimens, slides, Dissection, Mounting, Higher Invertebrates, Lower Invertebrates, Protochordates, Vertebrate.	7

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