



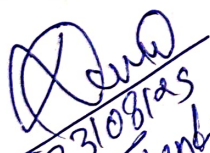
# ST. ALOYSIUS' COLLEGE (AUTONOMOUS), JABALPUR

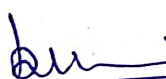
Reaccredited 'A++' Grade by NAAC (CGPA: 3.58/4.00)

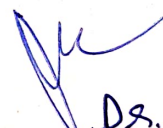
College with Potential for Excellence by UGC

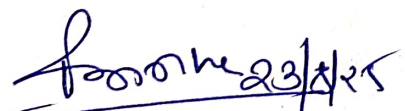
DST-FIST Supported & STAR College Scheme by DBT

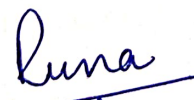
Part A Introduction (Theory)			
Program: Certificate		Class: B.Sc.	Semester: I
Session: 2025-26			
Subject: Zoology Major – I			
1	Course Code		
2	Course Title	Animal Diversity I: Lower Non-Chordata	
3	Course Type (Core Course/ Discipline Specific Elective/)	Major – I	
4	Pre-requisite (if any)	To study this course, a student must have the subject Biology in 12th Class	
5	Course Learning outcomes (CLO)	After the completion of the course the learners will be able to understand: 1. Animal classification according to Indian knowledge-based system. 2. Identify lower non-chordates. 3. In practical learner enhance knowledge by group discussion, collaborative learning and by project work.	
6	Credit Value	06	
7	Total Marks	Max. Marks: 30 + 70	Min. Passing Marks: 35


  
23/08/25  
Dr. Jitendra Narwade


  
23.8.2025  
(Dr. Suheli Sharma)


  
Dr. Madhura Sharma

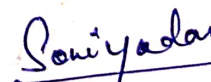
  
23/8/25  
Dr. Priyanka Soni

  
Ruma  
Dr. Ruma Paul

  
Dr. Daya Shankar Bhatnagar

  
Ms. Amita Saxena

  
Dr. Manju Dixit

  
SONI YADAV

Part B- Content of the Course		
Total No. of Lectures-Tutorials-Practical (in hours per week): 2 hours / Week L-T-P		
Unit	Topics	No. of Lecture
Unit 1	<b>Taxonomy and Historical Background of Lower Non-Chordates –</b> 1. Classification of Lower Non-Chordates by Charak (Reference Charak Samhita, Sutras 27/34-45) on the basis of their Habitat and Nutrition. 2. Correlation between Mythological Avatars and Evolution of Animals 3. Outline Classification of Animal Kingdom. 4. Rules of Nomenclature. <b>Keywords/Tags:</b> Classification, Nomenclature, Mythology, Evolution.	12
Suggestive Activity	1. Role plays of Pauric Avatars related to Biological Evolution. 2. Making of Flow Chart of Animal Kingdom.	
Unit 2	<b>Phylum - Protozoa and Porifera</b> 1. Habitat Mentioned in “Shri Ram Charit Manas ki Vaigyanik Teeka”; by Dr. S. P. Gautam. 2. Characteristics and Outline Classification up to Classes according to Parker and Haswell 7 <sup>th</sup> edition revised by Marshall and Williams 3. Protozoa and Disease. 4. Cellular Organization and Canal System in Porifera 5. Medicinal and Economic uses of Sponges <b>Keywords/Tags:</b> Protozoa, Disease, Porifera, Canal system, Cellular organization	12
Suggestive Activity	1. Submit an assignment on Protozoa and Disease 2. Making of poster of different Canal system of Porifera	

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 Rina  
 A. Suresh



Unit 3	<b>Phylum - Coelenterata-</b> <ol style="list-style-type: none"> <li>1. Habitat of Coelenterates mentioned in “Shrimad Bhagwat me Vigyan”.</li> <li>2. Characteristics and Classification up to Classes by Parker and Haswell 7<sup>th</sup> edition revised by William Marshall.</li> <li>3. Polymorphism and Metagenesis.</li> <li>4. Role of Corals in Marine Ecosystem as mentioned in Rigveda (Reference: Rigveda 1.71.2.)</li> <li>5. Coral: Medicinal, Cultural and its Economic Importance.</li> </ol> <b>Keywords/Tags: Coelenterata, Polymorphism, Metagenesis, Coral</b>	12
Suggestive Activity	<ol style="list-style-type: none"> <li>1. Making of chart of Obelia Life-History</li> <li>2. Collect pictures of Corals and write their Zoological Names</li> </ol>	
Unit 4	<b>Phylum - Platyhelminthes</b> <ol style="list-style-type: none"> <li>1. Its habitat mentioned in Shrimad Bhagwat mein Vigyan.</li> <li>2. Characteristics and Classification up to Classes by Parker and Haswell 7<sup>th</sup> edition revised by William Marshall.</li> <li>3. Fasciola - External Structure, Excretory System, Reproductive System.</li> <li>4. Fasciola – Life Cycle and Parasitic Adaptations.</li> <li>5. Antiparasitic and Antimicrobial Properties of Platyhelminths</li> </ol> <b>Keywords/Tags: Platyhelminthes, Excretory system, Reproductive system, Life Cycle, Parasitic Adaptations</b>	12
Suggestive Activity	1. Make placards of Parasitic Adaptations Roundworms and Flatworms.	

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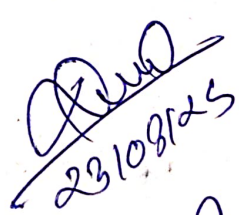


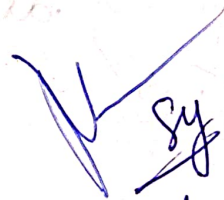

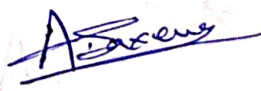
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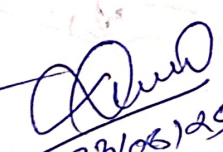
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Unit 5	<b>Phylum - Aschelminthes</b> <ol style="list-style-type: none"> <li>1. Characteristics and Classification up to Classes by Parker and Haswell 7<sup>th</sup> edition revised by William Marshall.</li> <li>2. Concept of Pseudocoel.</li> <li>3. Study of Pathogenic Helminthes.</li> <li>4. Medicinal uses of Round Worms.</li> </ol> <b>Keywords/Tags:</b> Aschelminthes, Pseudocoel, Pathogenic, Round Worms.	12
Suggestive Activity	1.Group discussion on hygiene and Pathogenic Helminthes	

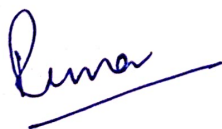
Part -C: Assessment & Evaluation (Theory)		
<b>Suggested Continuous Evaluation Methods:</b> Maximum Marks: 100 Continuous Comprehensive Evaluation (CCE): 30 Marks University Exam (UE) 70 marks		
<b>Internal Assessment:</b> Continuous Comprehensive Evaluation (CCE)	Class Test Assignment/Presentation	30
<b>External Assessment:</b> Exam Section Time: 03.00 Hours	Section(A): Very Short Questions Section (B): Short Questions Section (C): Long Questions	70

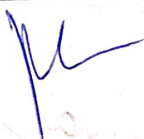


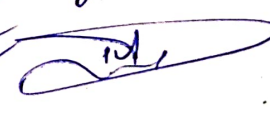
Part A Introduction (Practical)			
Program: Certificate	Class: B.Sc.	Semester : First	Session: 2025-26
Subject: Zoology Major – I			
1	Course Code		
2	Course Title	Animal Diversity I - Lower Non-Chordate	
3	Course Type (Core Course/ Discipline Specific Elective/ Elective/ Generic Elective /Vocational/)	Major – I	
4	Pre-requisite (if any)	To study this course, a student must have had the subject Biology in 12 <sup>th</sup> Class.	
5	Course Learning outcomes (CLO)	<p>Upon completion of the course students should be able to understand -</p> <ol style="list-style-type: none"> <li>1. The identification of the lower non-chordate animals through study of museum specimens and slides.</li> <li>2. The pathogenic lower non-chordates.</li> <li>3. Enhance collaborative learning and communication skills through practical sessions, team work, group discussions, assignments and projects.</li> </ol>	
6	Credit Value	02	
7	Total Marks	Max. Marks: 30+70	Min. Passing Marks:35

   
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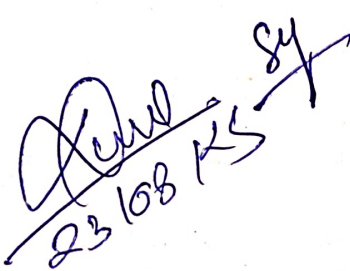
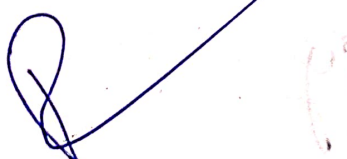
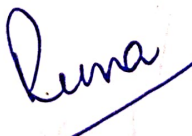








Part B- Content of the Course		
Total No. of Lectures-Tutorials-Practical (in hours per week):		
L-T-P:		
Unit/S. No.	Topics	No. of hours
1	Study of Museum Specimens and Slides of Lower Non-Chordates.	10
2	Fasciola - Excretory System and Reproductive System. Demonstration (Only through You Tube, Models or Charts)	05
3	Examination of Pond Water for study of different kinds of Microscopic Organisms.	05
4.	Study of Pathogenic Protozoa.	05
5.	Study of Pathogenic Helminthes.	05
Keywords/Tags: Museum Specimens, slides, Excretory system, Reproductive system, Microscopic Organisms, Pathogenic		

Part -C: Assessment & Evaluation (Practical)				
Suggested Continuous Evaluation Methods:				
	Internal Assessment	Marks	External Assessment	Marks
1 2 3	Class Interaction/Quiz Attendance Practical Record File Assignments (Charts/Model Seminar/Rural Service /Technology Dissemination/ Report of Excursion /Lab Visit/Survey/ Industrial visit)	30	Viva Voce on Practical  Table work/Experiments	70
	Total	30		70
Any remarks/Suggestions: e- Demonstrations & e- procedures can be opted.				

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