



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: 2026-27			
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	04+02	
7	Total Marks	Max. Marks: 30 + 70	Min. Passing Marks: 35

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5.8.2026

Dr. Sunita Sharma

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Dr. Mahesh Sharma

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Dr. Pooja

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Dr. Priyanka Singh
5/8/26

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Dr. Ruma Paul
5/8/2026

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Dr. Nitendra Nandy
05/08/2026

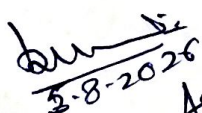
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Dr. Megha Sharma

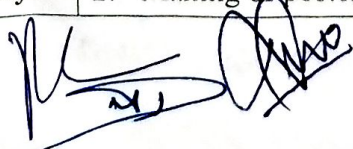
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Dr. Daya Shankar Gantam
5/8/26

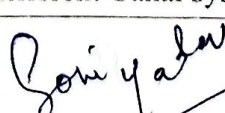
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SONI YADAV
Soni Yadav
5/8/2026

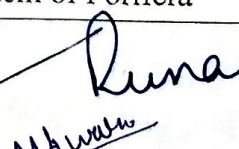
Part B- Content of the Course		
Total No. of Lectures-Tutorials-Practical (in hours per week): 2 hours / Week L-T-P:		
Unit	Topics	No. of Lectures
Unit 1	Taxonomy and Historical Background of Lower Non-Chordates – 1. Classification of Lower Non-Chordates by Charak (Reference Charak Samhita, Sutras than 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. Keywords/Tags: 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	Phylum - Protozoa and Porifera 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 7th 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 Keywords/Tags; 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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Unit 3	Phylum - Coelenterata-	12
	1. Habitat of Coelenterates mentioned in "Shrimad Bhagwat me Vigyan". 2. Characteristics and Classification up to Classes by Parker and Haswell 7th edition revised by William Marshall. 3. Polymorphism and Metagenesis. 4. Role of Corals in Marine Ecosystem as mentioned in Rigveda (Reference: Rigveda 1.71.2.) 5. Coral: Medicinal, Cultural and its Economic Importance. Keywords/Tags: Coelenterata, Polymorphism, Metagenesis, Coral	
Suggestive Activity	1. Making of chart of Obelia Life-History 2. Collect pictures of Corals and write their Zoological Names	
Unit 4	Phylum - Platyhelminthes	12
	1. Its habitat mentioned in Shrimad Bhagwat mein Vigyan. 2. Characteristics and Classification up to Classes by Parker and Haswell 7th edition revised by William Marshall. 3. Fasciola - External Structure, Excretory System, Reproductive System. 4. Fasciola – Life Cycle and Parasitic Adaptations. 5. Antiparasitic and Antimicrobial Properties of Platyhelminths Keywords/Tags: Platyhelminthes, Excretory system, Reproductive system, Life Cycle, Parasitic Adaptations	

Suggestive Activity	1. Make placards of Parasitic Adaptations Roundworms and Flatworms.	
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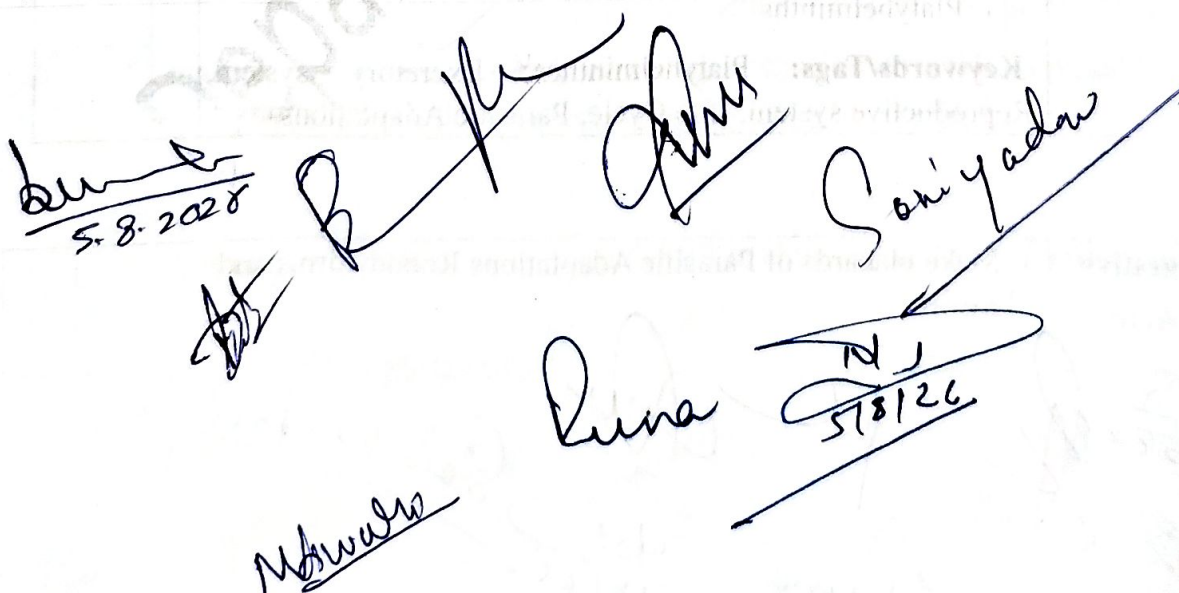
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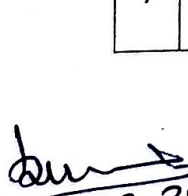
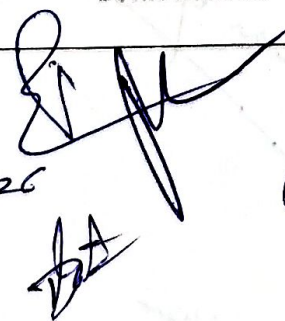
Unit 5	Phylum - Aschelminthes 1. Characteristics and Classification up to Classes by Parker and Haswell 7th edition revised by William Marshall. 2. Concept of Pseudocoel. 3. Study of Pathogenic Helminthes. 4. Medicinal uses of Round Worms. Keywords/Tags: Aschelminthes, Pseudocoel, Pathogenic, Round Worms.	12
Suggestive Activity	1. Group discussion on hygiene and Pathogenic Helminthes	

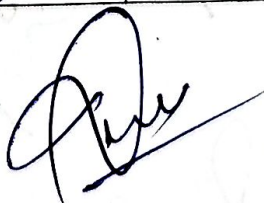
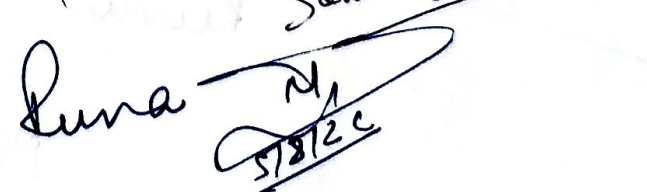
Part -C: Assessment & Evaluation (Theory)		
Suggested Continuous Evaluation Methods: Maximum Marks: 100 Continuous Comprehensive Evaluation (CCE): 30 Marks University Exam (UE) 70 marks		
Internal Assessment: Continuous Comprehensive Evaluation (CCE)	Class Test Assignment/Presentation	30
External Assessment: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



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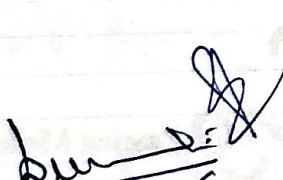
Part A Introduction (Practical)			
Program: Certificate		Class: B.Sc.	Semester : First
		Session: 2026-27	
Subject: Zoology Major – I			
1	Course Code		
2	Course Title	Animal Diversity I - Lower Non-Chordate	
3	Course Type (Core Course/ Discipline Specific Elective/ Elective/ Generic Elective /Vocational/)	Major – I	
4	Pre-requisite (if any)	To study this course, a student must have had the subject Biology in 12 th Class.	
5	Course Learning outcomes (CLO)	Upon completion of the course students should be able to understand - 1. The identification of the lower non-chordate animals through study of museum specimens and slides. 2. The pathogenic lower non-chordates. 3. Enhance collaborative learning and communication skills through practical sessions, team work, group discussions, assignments and projects.	
6	Credit Value	02	
7	Total Marks	Max. Marks: 30+70	Min. Passing Marks:35

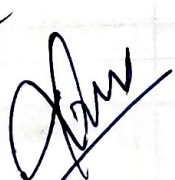

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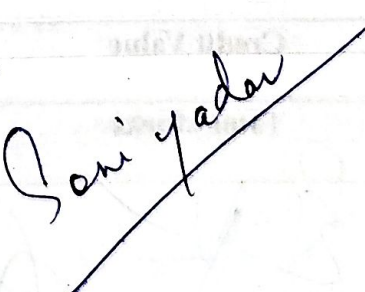

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Part B- Content of the Course		
Total No. of Lectures-Tutorials-Practical (in hours per week):		
L-T-P:		
Unit/S. No.	Topics	No. of hours
1	Study of Museum Specimens and Slides of Lower Non-Chordates.	10
2	Fasciola - Excretory System and Reproductive System. Demonstration (Only through You Tube, Models or Charts)	05
3	- Examination of Pond Water for study of different kinds of Microscopic Organisms. - Study of culture method for protozoans	05
4.	Study of Pathogenic Protozoa:- Entamoeba histolytica , Giardia lamblia Trypanosoma brucei, Balantidium coli	05
5.	Study of Pathogenic Helminthes. Collection of snail from the local garden for the study of host parasite relationship in parasitology.	05
Keywords/Tags: Museum Specimens, slides, Excretory system, Reproductive system, Microscopic Organisms, Pathogenic		


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Part -C: Assessment & Evaluation (Practical)

Suggested Continuous Evaluation Methods:

	Internal Assessment	Marks	External Assessment	Marks
1	Class Interaction/Quiz			
2	Attendance Practical Record File	30	Viva Voce on Practical	70
3	Assignments (Charts/Model Seminar/Rural Service /Technology Dissemination/ Report of Excursion /Lab Visit/Survey/ Industrial visit)		Table work/Experiments	
	Total	30		70

Any remarks/Suggestions: e- Demonstrations & e- procedures can be opted.

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