

UNIVERSITY OF MADRAS
B.Sc. DEGREE PROGRAMME IN PLANT BIOLOGY
AND PLANT BIOTECHNOLOGY
SYLLABUS WITH EFFECT FROM 2023-2024

SEMESTER - I

Course Code	Course Name	Category	L	T	P	S	Credits	Inst. Hours	Marks		
									CIA	External	Total
139E1A	Zoology I	Elective	Y	-	-	-	2	2	25	75	100
Learning Objectives											
CO1	To acquire a basic knowledge of diversity and organization of Protozoa and Porifera										
CO2	To acquire a basic knowledge of diversity and organization of Coelenterates, Helminthes and Annelida ,Arthropoda, Mollusca and Echinodermata										
CO3	To comprehend the taxonomic position and diversity among Protochordata, Pisces and Amphibia										
CO4	To comprehend the taxonomic position and diversity among Reptilia, Aves and Mammalia										
CO5	To acquire detailed knowledge of certain invertebrate and chordate forms										
UNIT	Details							No. of Hours	Course Objectives		
I	Diversity of Invertebrates–I Principles of taxonomy. Criteria for classification–Symmetry and Coelom–Binomial nomenclature. Classification of Protozoa and Porifera up to classes with two examples. Protozoa :Type study: <i>Paramecium caudatum</i> Porifera :Type Study: Scypha (sycon)							12	CO1		
II	Diversity of Invertebrates–II Classification of Coelenterata, Helminthes and Annelida upto classes with two examples. Coelenterata : Type study: <i>Obelia geniculata</i> Platyhelminthes: Type study: <i>Fasciola hepatica</i> Annelida : Type study: <i>Hirudinaria</i> (Leech)							12	CO2		
III	Diversity of Invertebrates–III Classification of Arthropoda, Mollusca and Echinodermata upto classes with two examples. Arthropoda : Type study: <i>Penaeus</i> (Prawn) Mollusca : Type study: <i>Unio</i> Echinodermata: Type study: <i>Asterias</i> (Star fish)							12	CO3		

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IV	Diversity of Chordates–I Classification of Prochordata ,Pisces and Amphibia upto orders with two examples. Prochordates: Type study: <i>Amphioxus</i> – Structure and affinities Vertebrates -Pisces : Type study: Shark Amphibians : Type study: Frog	12	CO4
V	Diversity of Chordates–II Classification of Reptilia, Aves and Mammalia upto orders giving two examples. Reptiles : Type study: <i>Calotes</i> Aves : Type study- Pigeon Mammalia : Type study- Rabbit	12	CO5
Total		60	
Course Outcomes			
Course Outcomes	On completion of this course, students will;		
CO1	Recall the characteristic features invertebrates and chordates.	PO1	
CO2	Classify invertebrates up to class level and chordates up to order level	PO1	
CO3	Explain and discuss the structural and functional organisation of some invertebrates and chordates	PO4, PO6	
CO4	Relate the adaptations and habits of animals to their habitat	PO4, PO5, PO6	
CO5	Analyse the taxonomic position of animals.	PO3, PO8	
Text Books (Latest Editions)			
1.	EkambaranathaIyer,-OutlinesofZoologyViswanathanPublication		
References Books (Latest editions, and the style as given below must be strictly adhered to)			
1.	Ekambaranatha Iyar and T.N.Ananthakrishnian - A Manual		
2.	EkambaranathaIyarandT.N.Ananthakrishnan,-AManualofZoology-Invertebrata–VolIII:ViswanathanPublishors.		
3.	EkambaranathaIyarandT.N.Ananthakrishnan,-AManualofZoology:ChordataViswanathanPublishers.		
4.	JordanE.L.andP.S. Verma-Invertebrate Zoology,S.Chand&Co.		

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Web Resources		
1.	www.sanctuaryasia.com	
2.	www.iaszoology.com	
Methods of Evaluation		
Internal Evaluation	Continuous Internal Assessment Test	25 Marks
	Assignments	
	Seminars	
	Attendance and Class Participation	
External Evaluation	End Semester Examination	75 Marks
	Total	100 Marks
Methods of Assessment		
Recall (K1)	Simple definitions, MCQ, Recall steps, Concept definitions	
Understand/Comprehended (K2)	MCQ, True/False, Short essays, Concept explanations, Short summary or overview	
Application (K3)	Suggest idea/concept with examples, Suggest formulae, Solve problems, Observe, Explain	
Analyze (K4)	Problem-solving questions, Finish a procedure in many steps, Differentiate between various ideas, Map knowledge	
Evaluate (K5)	Longer essay/ Evaluation essay, Critique or justify with pros and cons	
Create (K6)	Check knowledge in specific or offbeat situations, Discussion, Debating or Presentations	

Mapping with Programme Outcomes:

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	S							
CO 2	M		S					
CO 3				S		S		
CO 4				S	S	M		
CO 5			S					S

S-Strong(3)

M-Medium (2)

L-Low (1)