

Lecture Plan							
Name of the College: Government College of Arts, Science and Commerce. Sanquelim - Goa							
Name of Faculty: Miss. Ayesha E. Shetkar		Subject: Zoology					
Paper code: ZOO 133 – Understanding Applications of Zoology		Program: F.Y.B.Sc.			Division: -		
Academic year: 2024-25		Semester: II			Total Lectures: 30		
Course Objectives: 1. To outline the history, scope and applications of Zoology in human health, trade, commerce and industry. 2. To explain the importance of animal conservation.							
Expected Course Outcome: 1. Recall the history and scope of Zoology. 2. Appraise the role of Zoology in public health. 3. Discuss applications of Zoology in trade, commerce and industry. 4. Describe the importance of conservation of animals.							
Student Learning Outcome: The students will gain knowledge about culture methods of economically important species, role of zoology in evolution, ecology & in trade, commerce.							
Month	Lecture From	Lecture To	No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books
December 2024	9th	14th	2	Topic 1: Introduction to understanding Applications of Zoology		Power point	1. K. K. Chaki, G. Kundu, and S. Sarkar, Introduction to General Zoology: Volume I, 4th ed. India: New Central Book Agency, 2011.

				Topic 2: Scope of Zoology		presen tation	2. P. R. Yadav, Understanding Zoology. India: Discovery Publishing Pvt. Ltd., 2010. 3. R. L. Kotpal, Modern Textbook of Zoology: Invertebrates, 12th Ed. Rastogi Publications, 2020. 17 4. R. R. Prabhu Jayasurya, Economic Zoology. India: Saras Publications, 2013. 5. K.D. Chatterjee, Parasitology: Protozoology and Helminthology, 13th ed. India: CBS Publishers & Distributors, 2019. 6. P. Joshi, and P. Joshi, Textbook of Conservation Biology. India: Evincepub Publishing, 2020.
	16th	21st	2	Topic 3: Importance of Zoology Topic 4: Genesis of Zoology as knowledge system		Power point presen tation	1. K. K. Chaki, G. Kundu, and S. Sarkar, Introduction to General Zoology: Volume I, 4th ed. India: New Central Book Agency, 2011. 2. P. R. Yadav, Understanding Zoology. India: Discovery Publishing Pvt. Ltd., 2010. 3. R. L. Kotpal, Modern Textbook of Zoology: Invertebrates, 12th Ed. Rastogi Publications, 2020. 17 4. R. R. Prabhu Jayasurya, Economic Zoology. India: Saras Publications, 2013. 5. K.D. Chatterjee, Parasitology: Protozoology and Helminthology, 13th ed. India: CBS Publishers & Distributors, 2019. 6. P. Joshi, and P. Joshi, Textbook of Conservation Biology. India: Evincepub Publishing, 2020.
January 2025	2nd	4th	1	Topic 5: Genesis of Zoology as knowledge system		Power point presen tation	1. K. K. Chaki, G. Kundu, and S. Sarkar, Introduction to General Zoology: Volume I, 4th ed. India: New Central Book Agency, 2011. 2. P. R. Yadav, Understanding Zoology. India: Discovery Publishing Pvt. Ltd., 2010. 3. R. L. Kotpal, Modern Textbook of Zoology: Invertebrates, 12th Ed. Rastogi Publications, 2020. 17 4. R. R. Prabhu Jayasurya, Economic Zoology. India: Saras Publications, 2013. 5. K.D. Chatterjee, Parasitology: Protozoology and Helminthology, 13th ed. India: CBS Publishers & Distributors, 2019. 6. P. Joshi, and P. Joshi, Textbook of Conservation Biology. India: Evincepub Publishing, 2020.
	6th	11th	2	Topic 6: Rise of the Naturalist Topic 7: Rise of the Naturalist		Power point	1. K. K. Chaki, G. Kundu, and S. Sarkar, Introduction to General Zoology: Volume I, 4th ed. India: New Central Book Agency, 2011.

					presen tation	2. P. R. Yadav, Understanding Zoology. India: Discovery Publishing Pvt. Ltd., 2010. 3. R. L. Kotpal, Modern Textbook of Zoology: Invertebrates, 12th Ed. Rastogi Publications, 2020. 17 4. R. R. Prabhu Jayasurya, Economic Zoology. India: Saras Publications, 2013. 5. K.D. Chatterjee, Parasitology: Protozoology and Helminthology, 13th ed. India: CBS Publishers & Distributors, 2019. 6. P. Joshi, and P. Joshi, Textbook of Conservation Biology. India: Evincepub Publishing, 2020.
	13th	18th	2	Topic 8: Aristotle's Zoology Topic 9: Aristotle's Zoology	Power point presen tation	1. K. K. Chaki, G. Kundu, and S. Sarkar, Introduction to General Zoology: Volume I, 4th ed. India: New Central Book Agency, 2011. 2. P. R. Yadav, Understanding Zoology. India: Discovery Publishing Pvt. Ltd., 2010. 3. R. L. Kotpal, Modern Textbook of Zoology: Invertebrates, 12th Ed. Rastogi Publications, 2020. 17 4. R. R. Prabhu Jayasurya, Economic Zoology. India: Saras Publications, 2013. 5. K.D. Chatterjee, Parasitology: Protozoology and Helminthology, 13th ed. India: CBS Publishers & Distributors, 2019. 6. P. Joshi, and P. Joshi, Textbook of Conservation Biology. India: Evincepub Publishing, 2020.
	20th	25th	2	Topic 10: Major milestones in Zoology from 17th Century to present Topic 11: Major milestones in Zoology from 17th Century to present	Power point presen tation	1. K. K. Chaki, G. Kundu, and S. Sarkar, Introduction to General Zoology: Volume I, 4th ed. India: New Central Book Agency, 2011. 2. P. R. Yadav, Understanding Zoology. India: Discovery Publishing Pvt. Ltd., 2010. 3. R. L. Kotpal, Modern Textbook of Zoology: Invertebrates, 12th Ed. Rastogi Publications, 2020. 17 4. R. R. Prabhu Jayasurya, Economic Zoology. India: Saras Publications, 2013. 5. K.D. Chatterjee, Parasitology: Protozoology and Helminthology, 13th ed. India: CBS Publishers & Distributors, 2019. 6. P. Joshi, and P. Joshi, Textbook of Conservation Biology. India: Evincepub Publishing, 2020.
Februar y 2025	27th	1st	2	Topic 12: Branches of Zoology	Power point	1. K. K. Chaki, G. Kundu, and S. Sarkar, Introduction to General Zoology: Volume I, 4th ed. India: New Central Book Agency, 2011.
				Topic 13: Branches of Zoology		

					presen tation	2. P. R. Yadav, Understanding Zoology. India: Discovery Publishing Pvt. Ltd., 2010. 3. R. L. Kotpal, Modern Textbook of Zoology: Invertebrates, 12th Ed. Rastogi Publications, 2020. 17 4. R. R. Prabhu Jayasurya, Economic Zoology. India: Saras Publications, 2013. 5. K.D. Chatterjee, Parasitology: Protozoology and Helminthology, 13th ed. India: CBS Publishers & Distributors, 2019. 6. P. Joshi, and P. Joshi, Textbook of Conservation Biology. India: Evincepub Publishing, 2020.
	3rd	8th	2	Topic 14: Introduction to application of Zoology in Trade, Commerce and Industry Topic 15: Bionomic Zoology	Power point presen tation	1. K. K. Chaki, G. Kundu, and S. Sarkar, Introduction to General Zoology: Volume I, 4th ed. India: New Central Book Agency, 2011. 2. P. R. Yadav, Understanding Zoology. India: Discovery Publishing Pvt. Ltd., 2010. 3. R. L. Kotpal, Modern Textbook of Zoology: Invertebrates, 12th Ed. Rastogi Publications, 2020. 17 4. R. R. Prabhu Jayasurya, Economic Zoology. India: Saras Publications, 2013. 5. K.D. Chatterjee, Parasitology: Protozoology and Helminthology, 13th ed. India: CBS Publishers & Distributors, 2019. 6. P. Joshi, and P. Joshi, Textbook of Conservation Biology. India: Evincepub Publishing, 2020.
	10th	15th	2	Topic 16: Bionomic Zoology Topic 17: Apiculture	Power point presen tation	1. K. K. Chaki, G. Kundu, and S. Sarkar, Introduction to General Zoology: Volume I, 4th ed. India: New Central Book Agency, 2011. 2. P. R. Yadav, Understanding Zoology. India: Discovery Publishing Pvt. Ltd., 2010. 3. R. L. Kotpal, Modern Textbook of Zoology: Invertebrates, 12th Ed. Rastogi Publications, 2020. 17 4. R. R. Prabhu Jayasurya, Economic Zoology. India: Saras Publications, 2013. 5. K.D. Chatterjee, Parasitology: Protozoology and Helminthology, 13th ed. India: CBS Publishers & Distributors, 2019. 6. P. Joshi, and P. Joshi, Textbook of Conservation Biology. India: Evincepub Publishing, 2020.

	17th	22nd	2	Topic 18: Apiculture Topic 19: Lac culture	Power point presentation	1. K. K. Chaki, G. Kundu, and S. Sarkar, Introduction to General Zoology: Volume I, 4th ed. India: New Central Book Agency, 2011. 2. P. R. Yadav, Understanding Zoology. India: Discovery Publishing Pvt. Ltd., 2010. 3. R. L. Kotpal, Modern Textbook of Zoology: Invertebrates, 12th Ed. Rastogi Publications, 2020. 17 4. R. R. Prabhu Jayasurya, Economic Zoology. India: Saras Publications, 2013. 5. K.D. Chatterjee, Parasitology: Protozoology and Helminthology, 13th ed. India: CBS Publishers & Distributors, 2019. 6. P. Joshi, and P. Joshi, Textbook of Conservation Biology. India: Evincepub Publishing, 2020.
March 2025	24th	1st March	2	Topic 20: Lac culture Topic 21: Sericulture	Power point presentation	1. K. K. Chaki, G. Kundu, and S. Sarkar, Introduction to General Zoology: Volume I, 4th ed. India: New Central Book Agency, 2011. 2. P. R. Yadav, Understanding Zoology. India: Discovery Publishing Pvt. Ltd., 2010. 3. R. L. Kotpal, Modern Textbook of Zoology: Invertebrates, 12th Ed. Rastogi Publications, 2020. 17 4. R. R. Prabhu Jayasurya, Economic Zoology. India: Saras Publications, 2013. 5. K.D. Chatterjee, Parasitology: Protozoology and Helminthology, 13th ed. India: CBS Publishers & Distributors, 2019. 6. P. Joshi, and P. Joshi, Textbook of Conservation Biology. India: Evincepub Publishing, 2020.
	3rd	8th	2	Topic 22: Sericulture Topic 23: Mariculture Mussel culture	Power point presentation	1. K. K. Chaki, G. Kundu, and S. Sarkar, Introduction to General Zoology: Volume I, 4th ed. India: New Central Book Agency, 2011. 2. P. R. Yadav, Understanding Zoology. India: Discovery Publishing Pvt. Ltd., 2010. 3. R. L. Kotpal, Modern Textbook of Zoology: Invertebrates, 12th Ed. Rastogi Publications, 2020. 17 4. R. R. Prabhu Jayasurya, Economic Zoology. India: Saras Publications, 2013. 5. K.D. Chatterjee, Parasitology: Protozoology and Helminthology, 13th ed. India: CBS Publishers & Distributors, 2019. 6. P. Joshi, and P. Joshi, Textbook of Conservation Biology. India: Evincepub Publishing, 2020.

	10th	15th	1	Topic 24: Mariculture - Oyster culture		Power point presentation	1. K. K. Chaki, G. Kundu, and S. Sarkar, Introduction to General Zoology: Volume I, 4th ed. India: New Central Book Agency, 2011. 2. P. R. Yadav, Understanding Zoology. India: Discovery Publishing Pvt. Ltd., 2010. 3. R. L. Kotpal, Modern Textbook of Zoology: Invertebrates, 12th Ed. Rastogi Publications, 2020. 17 4. R. R. Prabhu Jayasurya, Economic Zoology. India: Saras Publications, 2013. 5. K.D. Chatterjee, Parasitology: Protozoology and Helminthology, 13th ed. India: CBS Publishers & Distributors, 2019. 6. P. Joshi, and P. Joshi, Textbook of Conservation Biology. India: Evincepub Publishing, 2020.
	17th	22nd	2	Topic 25: Introduction to Genetically Modified Organisms and Bioprospecting Topic 26: Introduction to Genetically Modified Organisms and Bioprospecting		Videos	1. K. K. Chaki, G. Kundu, and S. Sarkar, Introduction to General Zoology: Volume I, 4th ed. India: New Central Book Agency, 2011. 2. P. R. Yadav, Understanding Zoology. India: Discovery Publishing Pvt. Ltd., 2010. 3. R. L. Kotpal, Modern Textbook of Zoology: Invertebrates, 12th Ed. Rastogi Publications, 2020. 17 4. R. R. Prabhu Jayasurya, Economic Zoology. India: Saras Publications, 2013. 5. K.D. Chatterjee, Parasitology: Protozoology and Helminthology, 13th ed. India: CBS Publishers & Distributors, 2019. 6. P. Joshi, and P. Joshi, Textbook of Conservation Biology. India: Evincepub Publishing, 2020.
	24th	29th	1	Topic 27: Introduction to Animal inspired designs Topic 28: Introduction to Animal inspired designs		Videos	1. K. K. Chaki, G. Kundu, and S. Sarkar, Introduction to General Zoology: Volume I, 4th ed. India: New Central Book Agency, 2011. 2. P. R. Yadav, Understanding Zoology. India: Discovery Publishing Pvt. Ltd., 2010. 3. R. L. Kotpal, Modern Textbook of Zoology: Invertebrates, 12th Ed. Rastogi Publications, 2020. 17 4. R. R. Prabhu Jayasurya, Economic Zoology. India: Saras Publications, 2013. 5. K.D. Chatterjee, Parasitology: Protozoology and Helminthology, 13th ed. India: CBS Publishers & Distributors, 2019. 6. P. Joshi, and P. Joshi, Textbook of Conservation Biology. India: Evincepub Publishing, 2020.

April 2025	31st	5th	1	Revision			
	7th	11th	2	Revision			

*** Assessment
Rubrics**

Component	Max Marks
ISA 1	10
ISA 2	10
Practical	--
Project	--
Semester End Exam	80