

Dept. of Zoology
OEC: ANIMAL BEHAVIOUR

Course Title: Animal Behaviour	Course code: 21BSCOEZO
Total Contact Hours: 42	Course Credits: 03
Internal Assessment Marks: 40 marks	Duration of SEE: 03 Hours
Semester End Examination Marks: 60 marks	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Know the stages of the life cycles of the parasites and infective stages.
2. Develop ecological model to know population dynamics of parasite, establishment of parasite population in host body, adaptive radiations and methods adopted by parasite to combat with the host immune system.
3. Develop skills and realize significance of diagnosis of parasitic infection and treatment.
4. Understand about diseases caused by Protozoa, Helminthes, Nematodes and Arthropods at molecular level.
5. Develop their future career in medical sciences and related administrative services.

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Unit	Description	Hours
1	Chapter 1. Introduction to Animal Behaviour Origin and history of Ethology; Brief profiles of Karl Von Frish, Ivan Pavlov, Konrad Lorenz, Niko Tinbergen, Proximate and ultimate causes of behaviour, Methods and recording of a behaviour	8
2	Chapter 2. Patterns of Behaviour Stereotyped Behaviours (Orientation, Reflexes); Individual Behavioural patterns; Instinct vs. Learnt Behaviour; Associative learning, classical and operant conditioning, Habituation, Imprinting.	8
3	Chapter 5. Social and Sexual Behaviour Social Behaviour: Concept of Society; Communication and the senses; Altruism; Insects' society with Honey bee as example; Foraging in honey bee and advantages of the waggle dance. Sexual Behaviour: Asymmetry of sex, Sexual dimorphism, Mate choice, Intra-sexual selection (male rivalry), Inter-sexual selection (female choice), Sexual conflict in parental care. Nematode plant interaction ; Gall formation	10
4	Chapter 3. Migratory behavior Migration in fishes – Types of migration, anadromous and catadromous migration with reference to Hilsa and Anguilla.	7

	Migration in birds- Methods of studying migration, preparation for migration, Types of Bird Migration, Orientation and Navigation.	
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5	<p>Chapter 6. Biological rhythms</p> <p>Types and characteristics of Biological rhythms. The Biological Clock. Circadian rhythms and their synchronisation seasonal rhythms. Photoperiodism. Communication: Visual, olfactory, acoustic. Chemoreception: Chemicals (pheromones) as signals in insects, fish and mammals. Hormonal Control of behaviour. Cooperation and conflict: Evolution of altruism.</p>	9
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References

1. David McFarland, Animal Behaviour, Pitman Publishing Limited, London, UK.
2. Manning, A. and Dawkins, M. S, An Introduction to Animal Behaviour, Cambridge, University Press, UK
3. John Alcock, Animal Behaviour, Sinauer Associate Inc., USA.
4. Paul W. Sherman and John Alcock, Exploring Animal Behaviour, Sinauer Associate Inc., Massachusetts, USA.
5. Reena Mathur, "Animal Behaviour"
6. Fundamentals of animal behaviour – Sathguru Prasad.
7. Agarwal, V.K. & Usha Gupta. S. Chand's simplified course in Ecology and Ethology.
8. Arora, Mohan P. 2000. Animal behaviour. (Himalaya Publ. House).
9. Ranga, M.M., 2004. Animal behavior.
10. McFarland, David. Animal behaviour: Psychology, Ethology & Evolution. (ELBS Publ.).
11. Slater, P.J.B. 1999. Essentials of animal behaviour. (Cambridge Univ. Press).