

COURSE IV: ANIMAL BEHAVIOR (MSCZO-509)

UNIT WISE CONTENTS (MSCZO-509)

Block I: Animal behavior

Unit 1: Concept and classification

- 1.1 Objectives
- 1.2 Introduction
- 1.3 Ethology as a branch of biology
- 1.4 Animal psychology
 - 1.4.1 Classification of behavioral patterns
 - 1.4.2 Analysis of behavior (Ethogram)
- 1.5 Innate Behavior
- 1.6 Summary
- 1.7 Terminal Questions and Answers

Unit 2: Control of behavior

- 2.1 Objectives
- 2.2 Introduction
- 2.3 Neural behavior
- 2.4 Hormonal behavior
- 2.5 Summary
- 2.6 Terminal Questions and Answers

Unit 3: Developmental behavior

- 3.1 Objectives
- 3.2 Introduction
- 3.3 Genetic components
- 3.4 Environmental components
- 3.5 Summary
- 3.6 Terminal Questions and Answers

Unit 4: Communication

- 4.1 Objectives
- 4.2 Introduction
- 4.3 Chemical
- 4.4 Visual
- 4.5 Light
- 4.6 Audio
- 4.7 Specific specificity of Songs
- 4.8 Evolution of Language (primates)
- 4.9 Summary
- 4.10 Terminal Questions and Answers

Unit 5: Ecological aspects of behavior

- 5.1 Objectives

- 5.2 Introduction
- 5.3 Habitat selection
- 5.4 Food selection
- 5.5 Optimal forage theory
- 5.6 Anti predation defenses
- 5.7 Aggression
- 5.8 Homing
- 5.9 Territoriality
- 5.10 Dispersal
- 5.11 Host parasite relations
- 5.12 Summary
- 5.13 Terminal Questions and Answers

Block II

Unit 6: Social behavior

- 6.1 Objectives
- 6.2 Introduction
- 6.3 Aggression
 - 6.3.1 Schooling in fishes
 - 6.3.2 Flocking in birds
 - 6.3.3 Herding in mammals
- 6.4 Group selection
 - 6.4.1 Kin selection
- 6.5 Social organization in Insects and Primates
- 6.6 Summary
- 6.7 Terminal Questions and Answers

Unit 7: Reproductive behavior

- 7.1 Objectives
- 7.2 Introduction
- 7.3 Evolution of Sex and Reproductive strategies
- 7.4 Mating systems
- 7.5 Courtship
- 7.6 Sperm competition
- 7.7 Sexual selection
- 7.8 Summary
- 7.9 Terminal Question and Answers

Unit 8: Biological rhythms

- 8.1 Objectives
- 8.2 Introduction
- 8.3 Circadian and Circa-annual rhythms
- 8.4 Orientations and navigation
- 8.5 Migration of fishes, turtles and birds
- 8.6 Summary
- 8.7 Terminal Questions and Answers

Unit 9: Learning and Memory

9.1 Objectives

9.2 Introduction

9.3 Conditioning

9.4 Habituation

9.5 Insight learning

9.6 Association learning

9.7 Reasoning

9.8 Cognitive skills

9.9 Summary

9.10 Terminal Questions and Answers