



**MULTI-DISCIPLINARY INTRODUCTORY COURSE (ZOOLOGY)**  
**SEMESTER-I (NEP-2020)**

**Credits: 3**

**Session-2022**

**Course Title: Understanding the Animal World**

**Course Code: UGZOO22D102**

**Marks: 45**

**Contact Hours: 45**

**Learning objectives:**

This course is designed to acquaint the student with:

1. The basic structure of prokaryotic and eukaryotic cell.
2. Importance of biomembranes
3. Five kingdom classification.
4. Distinguishing features of animal kingdom.

**Learning outcomes:**

After successful completion of the course the students will be able to elucidate:

1. Characteristic features of each kingdom.
2. Economic importance of invertebrates.
3. Body organization of animals.

**Unit 1 Basics of cell**

- 1.1. Prokaryotic cell
- 1.2. Eukaryotic cell
- 1.3. Different models of cell membrane- Basic concept (Overton, Gorter and Grendel, Robertson, and Danielli and Davson)
- 1.4. Fluid mosaic model of cell membrane.

**Unit-2: The living World**

(General characters with examples)

- 2.1. Kingdom Monera
- 2.2. Kingdom Protista
- 2.3. Kingdom Fungi
- 2.4. Kingdom Plantae

**Unit-3: Kingdom Animalia**

- 3.1. Outline classification of animal kingdom
- 3.2. Body plan and organization of animals
- 3.3. Types of body cavities in animals
- 3.4. Beneficial and Harmful invertebrates

**Suggested Reading**

1. Shannon Lee "Invertebrate Zoology"
2. Janet Moore "An Introduction to the Invertebrates"
3. E. L. Jordan and P. S. Verma "Invertebrate Zoology"
4. R. L. Kotpal "Modern text book of Zoology: Invertebrates"
5. C.B. Powar "Cell biology"
6. Gupta, Jangir "Cell biology- Fundamentals and applications"
7. P.K. Gupta "Cell and molecular biology"

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