

## ZOOLOGY COURSE OUTCOMES

### COURSE -I: Animal Bio diversity of Invertebrates

After completion of the course, the student is able to

- \* understand about significance of biodiversity of invertebrates.
- \* know about general characters, special features and classification of invertebrates
- \* understand about economical importance of phylum such as Annelida, Arthropoda, Mollusca.
- \* learn scientific names of invertebrates animals.
- \* know about structure, life cycle of parasites and their diseases such as protozoans and helminthes

### Course-II: Animal Diversity-Chordates and Zoogeography

After completion of the course, the student is able to

- \* observe the vertebrates in surroundings in Palamaner
- \* learn the general characters, special features and classification of chordates.
- \* know the scientific names of vertebrates.
- \* know about living fossils of vertebrates
- \* understand the causes of endangered animal species such as domestic sparrow.
- \* describe the adaptation in the structure of various organs of vertebrates.
- \* learn the Geographical features and its distribution of fauna in different regions of the world.

### Course-III: Cytology, Genetics, Evolution

After completion of the course, the student is able to

- \* understand about basic concept of course.

- \* acquire knowledge to prokaryotic and eukaryotic cell with examples
- \* understand the structure and role/mechanism/functions of cell organelles.
- \* learn about classical genetics.
- \* learn about human karyotyping and chromosomal disorders.
- \* use the scientific terminology and improve the observation skills
- \* understand the origin of life, evolution theories, isolation mechanism and speciation
- \* build up observation skill through visit to museum and in practicals.

#### **Course-IV :- Embryology, Physiology, Ecology, and Behavior**

After completion of course, the student is able to

- \* understand the types of cleavage and types of eggs .
- \* understand the process of gametogenesis.
- \* Acquire knowledge on the types and role of placenta in vertebrates
- \* understand the significance of foetal membranes.
- \* understand about working as well as functions of organ systems.
- \* gain knowledge on the significance of biotic and abiotic components.
- \* improve the positive attitude towards environment.
- \* identify a variety of habitats within the ecosystem.
- \* know the differences between quantitative and qualitative surveys in field.
- \* identify adaptations of different species and understand its purpose.
- \* identify fauna and flora using simple keys through field trip/field study.
- \* learn the significance of bio-geo-chemical cycles
- \* understand about inter and intra relation between animals and plants.
- \* understand the types of behavior, learning and learn the biological rhythms with examples.

## **Course - V: Animal Biotechnology**

After completion of the course, the student is able to

- \* understand the tools and techniques of r.DNA technology
- \* learn the scientific terminology related with biotechnology.
- \* know about acquired knowledge on preparation of culture media, types of culture.
- \* understand the process, advantages of IVF and embryo transfer.
- \* know about process of gene cloning, as well as advantages o transgenic animals.
- \* understand the significance of fermentation.
- \* know about the applications of microbes.
- \* learn about the applications of biotechnology.

## **Course - VI:- Animal Husbandry**

After completion of the course, the student is able to

- \* understand the principles of poultry and dairy farm.
- \* know the differences between local and hybrid cattle and buffaloes.
- \* learn about scientific terminology related with animal husbandry.
- \* learn about advantages of in and cross breeding.
- \* know about names of exotic cattles
- \* understand about how to maintain the poultry shed.
- \* learn the disease treatment and precautions in poultry.
- \* know about purpose of vaccination.
- \* understand the care and management of calf.
- \* understand the preparation and purpose of nutritional requirements

## **Course- VII-(A) -Elective paper**

### **Immunology**

After completing of the course, the student is able to

- \*understand the basic concepts of Immunology.
- \*learn the types of immunity.
- \*understand the types, structure and role of cells and organs of immune system in human.
- \*learn the scientific terminology as well as definition of scientific words related with immunology.
- \*understand the mechanism of immune system.
- \*acquired knowledge on causes and types of allergy.
- \*understand the purpose of vaccines.
- \*Learn the purpose of antigens and antibodies.
- \*Understand the application of mono clonal antibodies.

## **Cluster elective - Aquaculture -VIII -B**

### **Cluster Elective paper:-VIII-B-1 Principles of Aquaculture**

After completing of the course, the student is able to

- \*acquire knowledge on significance of aquaculture.
- \*learn about present status of aquaculture.
- \*understand the types of culture system and culture practices.
- \* know about cultivable fishes and non cultivable fishes.
- \* acquire knowledge on fin and shell fishes and sea weed culture.

### **Cluster Elective paper: -VIII-B-2 Aquaculture Management**

After completing of the course, the student is able to

- \* understand the definition, types and significance of breeding in cultivable fin and shell fishes.
- \* know about definition of scientific words
- . \*know about how to prepare probiotics and their advantages..
- \* acquire knowledge on fish pathology.
- \*know about soil and water quality management for fin and shell fishes culture.
- \*know about how many hatcheries available in government and private sectors as well as purpose of fish and prawn hatcheries.
- \*know the formula and preparation of aqua feed.
- \*understand the principles of aquaculture economics as well as fisheries extension.
- \* know institutions and hatcheries related with aquaculture.

### **Cluster Elective paper: VIII-B-3 Postharvest Technology**

After completing of the course, the student is able to

- \* know the principles of preservation of marine and fresh fishes
- \* know the processing and preservation of products and by-products.
- \* understand the significance of seaweed products.
- \* learn scientific words and definition related with products and quality assurance.
- .. \*understand the identification of hazards in processing of fish
- \* understand scientific research skill/attitude / techniques.