SHIVRAJ COLLEGE GADHINGLAJ

DEPARTMENT OF ZOOLOGY

Zoology Program Outcomes, Program Specific Outcomes and Course Outcomes

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PROGRAM OUTCOMES

1. PO1 -Students gain knowledge and skill in the fundamentals of animal sciences, understands the complex interactions among various living organisms

2. PO2 –Analyze complex interactions among the various animals of different phyla, their distribution and their relationship with the environment

3. PO3 –Apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms.

4. PO4 –Understands the complex evolutionary processes and behavior of animals

5. PO5 –Correlates the physiological processes of animals and relationship of organ systems

6. PO6 –Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species

7. PO7 –Gain knowledge of Agro based Small Scale industries like sericulture, fish farming, butterfly farming and vermicompost preparation.

8. PO8 –Understands about various concepts of genetics and its importance in human health

9. PO9 -Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties

10. PO10 –Apply the knowledge and understanding of Zoology to one's own life andwork11.PO11 –Develops empathy and love towards the animals.

PROGRAM SPECIFIC OUTCOMES

1. PSO1. Understand the nature and basic concepts of cell biology, genetics, taxonomy, physiology, ecology and applied Zoology

2. PSO2. Analyze the relationships among animals, plants and microbes

3. PSO3. Perform procedures as per laboratory standards in the areas of Taxonomy, Physiology, Ecology, Cell biology, Genetics, Applied Zoology, tools and techniques of Zoology, Sericulture, Biochemistry, Animal biotechnology, and Immunology

4. PSO6. Contribute the knowledge for Nation building.

COURSE OUTCOMES

Animal Diversity –Invertebrates

CO1 Describe general taxonomic rules on animal classification

CO2 Classify Protista up to phylum using examples from parasitic adaptation

CO3 Classify Phylum Porifera to Echinodermata with taxonomic keys

CO4 Describe Phylum Nematoda and give examples of pathogenic Nematodes

Ecology, Zoogeography and Animal Behaviour

CO1Distribution of fauna in different realms interaction

CO2 Understand Animal behavior and response of animals to different instincts

CO3 Interaction of biota abiota

CO4 Various kinds of Animal adaptations

Animal Diversity –Vertebrates

CO1 Imparts conceptual knowledge of vertebrates, their adaptations and associations in relation to their environment

CO2 Classify phylum Protochordates to Mammalia

Cell Biology, Genetics and Evolution

CO1 Structural and functional aspects of basic unit of life i.e. cell concepts

CO2 Mendelian and non mendielian inheritance

CO3 Concept behind genetic disorder, gene mutations-various causes associated with inborn errors of metabolism

CO4 Theories of Evolution

CO5 Knowledge of eras and evolution of species

Physiology and Biochemistry

CO1 Seeks to understand the mechanisms that work to keep the human body alive and functioning

CO2 Physiological and biochemical understanding through scientific enquiry into the nature of mechanical, physical, and biochemical functions of humans, their organs, and the cells of which they are composed

CO3 Interactions and interdependence of physiological and biochemical processes

Animal physiology

CO1 Students are taught the detailed concepts of digestion respiration excretion the functioning of nerves and muscles

CO2 Students gain fundamental knowledge of animal physiology

CO3 Students will gain skill to execute the roles of a biology teacher or medical lab technicians with training as they have basic fundamentals

Animal physiology genetics and evolution

CO1 Students learn the concepts of endocrine systems and homeostasis a brief account of genetics and organic evolution.

CO2 This course helps students to gain fundamental knowledge in these topics

CO3 Students gain fundamental knowledge of physiology and endocrine systems

CO4 Students gain fundamental knowledge of physiology of homeostasis

CO5 Understanding of basic concepts of genetics, laws of inheritance and central dogma of biology

CO6 Understanding of genetic basis of evolution, human karyotyping and speciation.

Sericulture

CO1 Gives knowledge of silk worm rearing

CO2 Mulberry cultivation

CO3 Pests and diseases associated with silk worm and mulberry

CO4 various process involved in silk production

Immunology

CO1Imparts in depth knowledge of tissues, cells and molecules involved in host defense mechanisms

CO2 Understanding of types of immunity

CO3 Interactions of antigens, antibodies, complements and other immune components

CO4 Understanding of immune mechanisms in disease control, vaccination, process of immune interaction

Structural Biology

CO1 allows the students to gain basic knowledge about various bio molecules and their role in metabolism

CO2 Classification of enzymes, enzyme kinetics

CO3 Metabolism of carbohydrates, nucleic acids and metabolic disorders

CO4 Gains understanding of cellular organization and functional biology nucleic acids