

V. V. Sangha's
S.K COLLEGE OF ARTS COMMERCE AND SCIENCE
TALIKOTI

DEPARTMENT OF ZOOLOGY



Programme Outcomes(POs)
Programme Specific Outcomes(PSOs)
& Course Outcomes(Cos)



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S.K. Arts, Commerce & Science
College, Talikoti-586214, Dt-Vijayapur

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PROGRAMME OUTCOME

Programme	Objectives
PO1: Understanding of fundamental knowledge	Definition ,Concept, Principles ,Types ,Methods, etc...
PO2: Experimental learning methods.	Qualitative analysis, mounting, instrumental handling, demonstration.
PO3: Opportunities	Higher education, competitive exams, Entrepreneurship and job career.

PROGRAMME SPECIFIC OUTCOMES:

Programme	Objectives
PSO1: Acquiring basic fundamental parameters.	Definition, concept, Types, Principles, Functions, Lifecycle.
PSO2: Interdisciplinary Courses.	Parasitology, Embryology, Cytology, Oncology, Animal behaviour, Biotechnology, Biostatistics, Applied Zoology, Biochemistry, Genetics, Bioenergetics, Immunology.
PSO3: Exploring Animal Diversity	Identification of variety of Invertebrate and vertebrate species.
PSO4: Development of designing skills.	Graphs diagrams biological cycles.
PSO5: Ability to Enhance skills	Making of permanent histological and embryological slides, Staining procedures, Mounting.
PSO6: Awareness to technology	Biotechnology, Nanotechnology.
PSO7: Building applied skills in environmental science.	Bio-conservation, Wild life management.
PSO8: Building research culture	Developmental biology , cell biology, animal physiology, oncology, Endocrinology, parasitology.
PSO9: Field visit	Biodiversity, national parks and sanctuary, ecosystem (pond, marine and terrestrial), Biotechnological and Microbiology Equipped Laboratories, diagnostics centre.
PSO10: Part of government sectors.	Forest department, environmental sociologist, competitive exams.
PSO11: Self employment	Sericulture, Apiculture, Aquaculture, Vermiculture, Pest management, Pearl culture, Animal husbandry, Poultry, Biochemist.

B.SC I SEMESTER (BIOLOGY OF NONCHORDATES-THEORY)

CO1- Student will learn about taxonomy, general characters and classification up to example of phylum protozoa and porifera.

CO2- Student will learn about general characters and classification up to example of phylum coelenterate, Platyhelminthes and Aschelminths.

CO3- Student will learn about general characters and classification up to example of phylum Annelida and Arthropoda.

CO4- Student will learn about general characters and classification up to example of phylum Mollusca and Echinodermata.

CO5- They will understand about parasite it's adaptation and mode of transmission.

B.SC I SEMESTER (BIOLOGY OF NONCHORDATES- PRACTICAL)

PCO1- Student will learn about protozoan culture and preparation of slides.

PCO2- Student will learn about classification up to classes with one suitable example from each phylum protozoa to Annelida.

PCO3- Student will learn about classification up to classes with one suitable example from each phylum Arthropoda to Echinodermata.

PCO4- Student will learn and understand about mouth parts of insects.

PCO5- They will learn about parasitic adaptation of different parasites.

PCO6- Student will be demonstrated and explained about earthworm.

B.SC II SEMESTER (BIOLOGY OF CHORDATES- THEORY)

CO1- Student will learn about chordates general characters and classification of subphylum hemichordate, urochordate, Cephalochordate, Cyclostomata.

CO2- Student will learn about general characters and classification of phylum Pisces and Amphibians.

CO3- Student will learn about general character and classification of phylum Reptiles and Aves.

CO4- Student will learn about general characters and classification of phylum mammals and comparative anatomy.

B.SC II SEMESTER (BIOLOGY OF CHORDATES- PRACTICAL)

PCO1- Student will learn about classification of sub phylum hemichordate, Urochordata, Cephalochordata, Cyclostomata.

PCO2- Student will learn about Classification of phylum fishes.

PCO3- Student will learn about classification of phylum amphibians.

PCO4- Student will learn about classification of phylum reptiles.

PCO5- Student will learn about classification of phylum Aves.

PCO6- Student will learn about classification of phylum mammals.

PCO7- Student will learn about comparative anatomy heart and brain.

PCO8- Student will be demonstrated and explained about the bony fish.

B.Sc III Semester (Developmental Biology, Animal Physiology and Biochemistry Theory)

CO1- Student will learn about Embryology

CO2- Students will learn about Animal physiology and Biochemistry

CO3- Students will learn about Bioenergetics, Physiology of Digestion and Respiration

CO4- Student will learn about Physiology of Circulation, Excretion, Muscle contraction and Nervous Co ordination

CO5- They will acquire the knowledge about structure and organ related to Vision, Olfaction and Audition and Immunology

B.SC III Semester (PRACTICAL)

PCO1- Student will learn about developmental stages of frog up to Neurula

PCO2- Student will learn about developmental stages of chick embryo

PCO3- Students will mount the stages of chick embryo to make a permanent slide

PCO4- Students will learn about Qualitative test for Glucose, Starch, Protein, Fat and Sucrose

PCO5- They will learn about Qualitive test for Normal and Abnormal Constituents of Urine

PCO6- Students will prepare Haermatin Crystals

PCO7- They will Estimate Haemoglobin by Sahls Method

B.SC IV Semester (Cell Biology, Histology and Animal Behaviour-Theory)

CO1- Students will learn about the cell biology

CO2- Students will learn knowledge about chromosomes, cell division Cellular aging death and Cancer

CO3- Students will learn about the Histochemical techniques and histological structures and functions of following Mammalian organ Tongue, Salivary gland, Stomach, Intestine, Liver and Kidney

CO4- Student will learn about the histologic structure and Endocrine functions of following mammalian organs- Pituitary, Pancreas, Adrenal, Thymus Testis and Ovary

CO5- They will learn the Ethology (Animal Behaviour)

B.SC IV Semester (Cell Biology, Histology and Animal Behaviour -Practical)

PCO1- Student will learn about the permanent Cytological slides of Mitosis and Meiosis

PCO2- Students will learn about Temporary preparation of mitotic stages from onion root tip

PCO3- Students will learn about the Temporary preparation of meiotic stages from onion flower bud/ Grass hopper testis

PCO4- Students will learn about the preparation and observation of permanent histological slides

PCO5- Students will learn about the mimicry

PCO6-

Students will learn about the nest and nesting materials

**B.SC V SEMESTER (PAPER II: GENETICS, BIOTECHNOLOGY
AND BIOSTATICS THEORY)**

CO1- Student will study about the genetics.

CO2- Student will get the knowledge about biotechnology.

CO3- Student will learn about the biostatistics.

**B.SC V SEMESTER (PAPER II GENTICS, BIOTECHNOLOGY AND
BIOSTATICS- PRACTICAL)**

PCO1- Student will learn about the human karyotype and disorders.

PCO2- Student will solve the problems based on monohybrid, dihybrid, sex linked inheritance and multiple alleles.

PCO3- Student will learn the collection of gene and frequency.

PCO4- Student will learn about the blood groups.

PCO5- Student will learn about the paper chromatography.

PCO6- Student will learn about to form the frequency distribution table and draw histogram frequency polygon and frequency curve.

PCO7- Student will learn about the measurement of central tendency.

PCO8- Student will learn about isolation of DNA and RNA.

PCO9- Student will learn to prepare giant chromosome /Drosophila salivary gland chromosome.

B.SC V SEMESTER (PAPER I: APPLIED ZOOLOGY- THEORY)

- CO1-Student will get knowledge of sericulture.
- CO2- Student will earn the knowledge about apiculture.
- CO3- Student will learn about Vermiculture.
- CO4- Student will learn about aquaculture.
- CO5- Student will learn about the animal husbandry.

B.SC V SEMESTER (PAPER I: APPLIED ZOOLOGY -PRACTICAL)

- PCO1- Student will prepare a project on one of the applied branch studied in theory.
- PCO2- Student will learn about the mulberry silkworm and life cycle.
- PCO3- Student will learn about the non mulberry silk worm and diseases.
- PCO4- Student will learn about species and castes of honey bee.
- PCO5- Student will get the knowledge about agriculture pest and domestic pest.
- PCO6- Student will learn about fisheries.
- PCO7- Student will learn about variety of cow and buffaloes.
- PCO8- Student will learn about the vermiculture.
- PCO9- Student will learn about the poultry breeds.

**B.SC VII SEMESTER (PAPER II: MICROBIOLOGY AND
MODERN TECHNIQUE IN BIOLOGY THEORY)**


- CO1- Student will learn about the microbiology.
- CO2- Student will learn the knowledge of Nanotechnology.
- CO3- Student will understand the concept of bioinformatics.
- CO4- Student will learn about the methods in biology.
- CO5- Student will learn about research methodology.


**B.SC VII SEMESTER (PAPER II: MICROBIOLOGY AND
MODERN TECHNIQUE IN BIOLOGY- PRACTICAL**

- PCO1- Student will learn about the micrometry.
- PCO2- Student will prepare the liquid broth.
- PCO3- Student will prepare the solid media.
- PCO4- Student will prepare the agar slants.
- PCO5- Student will study the different bacteria virus and fungi causing diseases in man.
- PCO6- Student will learn about the bacterial cell counting using the haemocytometer.
- PCO7- Student will study the simple and gram staining differentiation of bacteria.
- PCO8- Student will study about the isolation and identification and enumeration of bacteria/ protozoa from moist soil or sewage water.

PCO9- Student will study the practical application of bioinformatics.

PCO10- Student will study the microbiological lab equipments.


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