9 Program Outcomes (PO)

- PO 1 : CRITICAL THINKING
- PO 2: LIFE SKILLS & PROBLEM SOLVING
- PO 3: DIGITAL LITERACY
- PO 4: INDEPENDENT AND LIFELONG LEARNING
- PO 5: LEADERSHIP AND READYNESS QUALITY
- PO 6: GLOBAL COMPETENCY
- PO 7: VALUES & ETHICS
- PO 8: ENVIRONMENT AND SUSTAINABILITY
- PO 9 : COMMUNITY SERVICE

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Department of zoology

SEMESTER I

PAPER – I: ANIMAL DIVERSITY – BIOLOGY OF NONCHORDATES

Course Outcomes:

CO1 Describe general taxonomic rules on animal classification

CO2 Classify Protozoa toCoelenterata with taxonomic keys

CO3 Classify Phylum Platy hemninthes to Annelida phylum using examples from parasitic

adaptation and vermin composting

CO4 Describe Phylum Arthropoda to Mollusca using examples and importance of insects

and Molluscans

CO5 Describe Echinodermata to Hemi chordata with suitable examples and larval stages in

relation to the phylogeny

ZOOLOGY –SEMESTER II

PAPER – II: ANIMAL DIVERSITY – BIOLOGY OF CHORDATES

Course Outcomes:

By the completion of the course the graduate should able to -

CO1 Describe general taxonomic rules on animal classification of chordates

CO2 Classify Protochordata to Mammalia with taxonomic keys

CO3 Understand Mammals with specific structural adaptaions

CO4 Understand the significance of dentition and evolutionary significance

CO5 Understand the origin and evolutionary relationship of different phyla from

Prochordata to mammalia.

ZOOLOGY – SEMESTER III

PAPER – III: CELL BIOLOGY, GENETICS, MOLECULAR BIOLOGY AND EVOLUTION

COURSE OUTCOME:

The overall course outcome is that the student shall develop deeper understanding of

what life is and how it functions at cellular level. This course will provide students with a

deep knowledge in Cell Biology, Animal Biotechnology and Evolution and by the

completion of the course the graduate shall able to –

CO1 To understand the basic unit of the living organisms and to differentiate the organisms

by their cell structure.

CO2 Describe fine structure and function of plasma membrane and different cell organelles

of eukaryotic cell.

CO3 To understandthe history of origin of branch of genetics, gain knowledge on heredity,

interaction of genes, various types of inheritance patterns existing in animals

CO4 Acquiring in-depth knowledge on various of aspects of genetics involved in sex

determination, human karyotyping and mutations of chromosomes resulting in various

disorders

CO5 Understand the central dogma of molecular biology and flow of genetic information

from DNA to proteins.

CO6 Understand the principles and forces of evolution of life on earth, the process of

evolution of new species and apply the same to develop new and advanced varieties

of animals for the benefit of the society

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ZOOLOGY – SEMESTER IV

PAPER – IV: ANIMAL PHYSIOLOGY, CELLULAR METABOLISM AND EMBRYOLOGY

Course Outcomes:

This course will provide students with a deep knowledge in Physiology, Cellular metabolism and Molecular Biology and by the completion of the course the graduate shall able to –

CO1 Understand the functions of important animal physiological systems including digestion, cardio-respiratory and renal systems.

CO2 Understand the muscular system and the neuro-endocrine regulation of animal growth, development and metabolism with a special knowledge of hormonal control of human reproduction.

CO3 Describe the structure, classification and chemistry of biomolecules and enzymes responsible for sustenance of life in living organisms

CO4 Develop broadunderstanding the basic metabolic activities pertaining to the catabolism and anabolism of various biomolecules

CO5 Describe the key events in early embryonic development starting from the formation of gametes upto gastrulation and formation of primary germ layers.

ZOOLOGY – SEMESTER V

PAPER – 5: ANIMAL BIOTECHNOLOGY

Course Outcomes:

CO1 Understand the applications of Biotechnology in the fields of industry and agriculture including animal cell/tissue culture, stem cell technology and genetic engineering.

CO2 Get familiar with the tools and techniques of animal biotechnology.

PAPER -6: ANIMAL HUSBANDARY

Course Outcomes:

CO1 To get knowledge of the poultry farming, feed management and Egg Management

CO2 To understand the feed management and Egg Management

Co3 To get knowledge of the dairy cattle and buffaloes

CO3 Understand the Care & management of Diary dairy animals

Co4 to apply the farm management and dairy techniques in the fields of veterinary industry

ZOOLOGY – SEMESTER VI

ELECTIVE: IMMUNOLOGY

CO1 To get knowledge of the organs of Immune system, types of immunity, cells and organs of immunity.

CO2 To describe immunological response as to how it is triggered (antigens) and regulated (antibodies)

CLUSTER: AQUACULTURE:

CO1 To get knowledge of the different types of fishes, shrimps and prawns which are under cultivable.

Co2 To understand the different aquaculture practices and management principles

Co3 To apply the post harvesting technologies to maintain and store the fish products.

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Animal Diversity – I Biology of Non-Chordates		CORRELATING PROGRAM OUTCOMES								
CO Code	Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	Describe the general taxonomic rules on animal classification.	2	1	0	3	2	1	2	2	2
CO2	Classify Protozoa to Coelenterate with taxonomic keys.	2	0	0	3	0	1	3	2	2
CO3	Classify Phylum Platy helminthes to Annelida phylum using examples from parasitic adaptation and vermin composting.	2	3	0	3	3	3	2	3	3
CO4	Describe Phylum Arthropoda to Mollusca using examples and importance of insects and Molluscans.	1	3	0	2	2	3	2	2	3
CO5	Describe Echinodermata to Hemi chordata with suitable examples and larval stages in relation to the phylogeny.	2	1	0	1	0	1	2	2	2
CO6	Familiarized with the life cycles and mode of reproduction in different invertebrates of Animal groups.	3	2	0	1	0	0	2	2	1
CO8	Study their economic importance, affinities and adaptations	2	3	1	3	3	2	2	2	3

Animal Diversity – II Biology of Chordates		CORRELATING PROGRAM OUTCOMES								
CO Code	Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	Describe the general taxonomic rules on animal classification of chordates.	2	1	0	3	2	1	2	2	2
CO2	Classify Proto chordata to Mammalia with taxonomic keys.	2	0	0	3	0	1	3	2	2
CO3	Understand Mammals with specific structural adaptations.	2	1	0	2	1	1	3	3	2
CO4	Understand the significance of dentition and evolutionary significance.	2	2	0	2	1	2	2	1	3
CO5	Understand the origin and evolutionary relationship of different phyla from Proto chordata to Mammalia.	2	2	0	2	1	2	2	1	2
CO6	Acquire knowledge on the life cycles and mode of reproduction in different vertebrates.	3	2	0	1	0	0	2	2	1
CO8	To study their economic importance, affinities and adaptations.	2	3	1	3	3	2	2	2	3

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Cell biology, Genetics, Molecular Biology & Evolution		CORRELATING PROGRAM OUTCOMES								
CO Code	Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	Understand the basic unit of the living organisms and to differentiate the organisr by their cell structure.	2	1	2	1	1	2	2	2	1
CO2	Describe fine structure and function of plasma membrane and different cell organelles of eukaryotic cell.	2	1	1	1	1	1	2	2	1
CO3	Understand the history of origin of branch of genetics, gain knowledge on heredity, interaction of genes, various types of inheritance patterns existing in animals	3	2	2	2	1	2	2	1	1
CO4	Acquiring in-depth knowledge on various of aspects of genetics involved in sex determination, human karyotyping and mutations of chromosomes resulting in various disorders	3	2	2	2	1	2	3	1	1
CO5	Understand the central dogma of molecular biology and flow of genetic information from DNA to proteins	2	1	2	2	1	3	1	0	0
CO6	Understand the principles and forces of evolution of life on earth, the process of evolution of new species and apply the same to develop new and advanced varieties of animals for the benefit of the society	2	1	1	1	1	1	2	3	1
CO7	Know MENDAL LAWS The inter-relationship between Organisms in population and communities	3	2	0	1	1	2	2	1	1
CO8	To understand and communicate the major evolutionary innovations in animal groups and describe the functional Significance of associated morphologies and behaviors.	1	2	1	2	1	2	1	2	2

Physiology, [illegible] Embryology		CORRELATING PROGRAM OUTCOMES								
CO Code	Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	Understand the functions of important animal physiological systems including digestion, cardio-respiratory and renal systems.	1	1	2	3	1	2	1	1	1
CO2	Understand the muscular system and the neuro-endocrine regulation of animal growth, development and metabolism with a special knowledge of hormonal control of human reproduction.	2	2	1	2	1	1	2	1	1
CO3	Describe the structure, classification and chemistry of biomolecules and enzymes responsible for sustenance of life in living organisms.	2	1	0	1	1	1	1	2	1
CO4	Develop broad understanding the basic metabolic activities pertaining to the catabolism and anabolism of various biomolecules.	3	1	2	1	1	2	2	1	1
CO5	Describe the key events in early embryonic development starting from the formation of gametes up to gastrulation and formation of primary germ layers.	2	1	0	0	1	2	2	0	2
CO6	Understand the Importance of Molecular biology in Present scenario.	2	1	2	2	3	3	1	1	1

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Immunology & Animal Biotechnology		CORRELATING PROGRAM OUTCOMES								
CO Code	Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	Understand the applications of Biotechnology in the fields of industry and agriculture including animal cell/tissue culture, stem cell technology and genetic engineering.	3	2	3	3	2	3	2	3	2
CO2	Familiar with the tools and techniques of animal biotechnology.	3	3	2	2	2	3	2	2	1
CO3	Knowledge of the organs of Immune system, types of immunity, cells and organs of immunity.	1	1	2	2	1	2	1	0	1
CO4	Describe immunological response as to how it is triggered (antigens) and regulated (antibodies)	3	0	1	1	1	2	2	1	1
CO5	Apply the knowledge in real life, different types of vaccines, vaccine preparations and Universal vaccination schemes implemented by Government of India	2	1	2	1	1	2	3	1	3
CO6	Understand the different types of inflammatory reactions, transplantations and auto immune diseases.	1	1	1	2	1	1	2	1	1

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Signatures of the Students

S.NO	Name of the Student	Class	Signatures
	1. D. Rajaneekumari	zoology major	D. Rajani
	2. P. Shamreen	zoology major	P. Shamreen.
	3. P. shafreen	zoology major	P. Shafreen.
	4. P. Sandhyarani	Zoology major	P. Sandhyarani
	5. P. Jyothsna	zoology major	P. Jyothsna
	6. P. Harika	zoology major	P. Harika
7.	B. preeti	Zoology Major	B. preeti
8.	K. Sirisha	Zoology major	K. Sirisha
9.	B. Mahalaxmi	Zoology Major	B. Mahalaxmi
10.	T. Jasmila Sravani	Zoology major	T. Jasmila Sravani
11.	R. Vamsi Krishna	zoology major	R. Vamsi Krishna.
12.	M. Adithya	zoology major	M. Adithya
13.	B. Santhosh Kumar	zoology Major	B. Santhosh Kumar
14.	B. Meghana	Zoology Major	B. Meghana
15.	G. Hemalatha	Zoology Major	G. Hemalatha

1.

2.

3.

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Govt. Degree College (Men)
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Capt. Dr. Y. POLI NAIDU
M.Sc. Ph.D
Lecturer in charge
Department of Zoology
Govt. Degree College (Men)
Srikakulam

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Awareness on CO's & PO's:- 2022-23

9 Program Outcomes (PO)

- PO 1 : CRITICAL THINKING
- PO 2: LIFE SKILLS & PROBLEM SOLVING
- PO 3: DIGITAL LITERACY
- PO 4: INDEPENDENT AND LIFELONG LEARNING
- PO 5: LEADERSHIP AND READYNESS QUALITY
- PO 6: GLOBAL COMPETENCY
- PO 7: VALUES & ETHICS
- PO 8: ENVIRONMENT AND SUSTAINABILITY
- PO 9 : COMMUNITY SERVICE

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Name of the Student	Class	Signature
Y. Sangeetha	1st BZC[F]	Y. Sangeetha
P. Nikhitha	"	P. Nikhitha
S. Renuka	"	S. Renuka
Y. Chandini	"	Y. Chandini
R. Anusha	"	R. Anusha
P. Hymavathi	"	P. Hymavathi
M. Someswari	"	M. Someswari
P. Prasanna rani	"	P. Prasanna Rani
R. Neelarani	"	R. Neelarani
P. Pavani	"	P. Pavani
M. Gayathri	"	M. Gayathri
Y. Jyothikumari	"	Y. Jyothikumari
T. ~~Anuly~~ T. Amulya	"	T. Amulya
P. Bhargavi	"	P. Bhargavi
P. Bhavya Sri	"	P. Bhavya Sri
M. Krishna veni	"	M. Krishna veni
P. Amaravathi	"	P. Amaravathi
S. Abhishek	"	S. Abhishek
P. Chinna Rao	"	P. Chinna Rao
M. Krishna chaitanya	"	Chaitanya
P. Nithin Kumar	"	P. Nithin Kumar
T. Balu.	"	T. Balu.
M. Ajay	"	M. Ajay
N. Anil kumar	"	N. Anil
T. Harshavardhan	"	T. Harshavardhan
M. Lakshadhan	"	M. Lakshadhan
S. Prasadrao	"	S. Prasadrao
T. Karthik	"	T. Karthik
Y. Charan Kumar	"	Y. Charan Kumar
L. Pavan Kumar	"	L. Pavan Kumar

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Attended Student Signatures

No	Name of the student	class	Signature
	A. Jujitha	BZC	A. Jujitha.
	Sravani	BZC	Sivamani.
	Viresh.	BZC	Viresh.
	Bmanada	"	B. Manasa
	K. Manikumar.	"	K. Manikumar.
	P. Rajesh.	"	P. Rajesh.
	P pradeep.	"	P- pradeep.
	Sai Sankar	"	Sai Sankar.
	Sai Gopal	"	Sai Gopal.
	B- mounika	"	B. mounika.
	L. Bidesha	"	L. Bidesha.
	S- Jhansi	"	S. Jhansi
	Ch - Abhi	"	Ch. Abhi.
	M. Porathysha	"	Porathysha
	K. Sruthi	"	K. Sruthi.
	B- Tulasi	"	B. Tulasi.
	Pooja	"	Pooja.
	K. Deepika	"	K. Deepika.
	K. Swathi	"	K. Swathi.
	B. madhu.	"	madhu.
	A. Deepika	"	Deepika.
	Anupamma.	"	Anupamma.
	Y - Dilliswari	"	Y - Dilliswari
	P. Upendra	"	P - Upendra.
	B. madhu	"	B. madhu.
	S Divya	"	S. Divya
	A. Tulasi	"	A. Tulasi
	B. manasa Sai	"	B. Manasa Sai.
	D. Swathi	"	D Swathi
	A. Vijay Kumar	"	A. Vijay Kumar.
	B. Viresh		B. Viresh.

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